

Ships Bag for MB/L ONEYHAME61537900

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SACO Shipping GmbH · Bürgermeister-Smidt-Str. 128 · 28195 Bremen

NVOCC Services worldwide

Bremen, 19. June 2024

Interteam S.A. de C.V.
Servicios Int.
Calle Colima #114 Desp. 201, Colonia Roma,
06700 C.P.MEXICO D.F
MX MEXICO

RECHNUNG/INVOICE EXPORT

JOL / JOL / JOL

CUSTOMER-Ref.: 18312404816

Leistungsdatum : 15.06.2024

INVOICE-No	INVOICE-Date	CUSTOMER-No	SACO-Ref.	B/L-Ref.	Your VAT-ID	R.O.E
5579952	19.06.2024	020896	4/06/BRE/526700	4/06/BRE/5267		0.9187

Vessel:

Destination:

Online-Ref:

Delivery:

Pieces

Gross KOS

Volumen CBM

SACO REF.: VESSEL: PORT: ETA: CONTAINER:
4/06/BRE/5267 AL MANAMAH ALTAMIRA 30.06.2024 NYKU 471 037 6

Pos.	Description	Rate	Amount	Tax
1	AS PER ATTACHED PL SHEET	956.74 USD	956.74	

NO VAT ON

956.74

VAT ON

0

TOTAL VAT

0

VAT

19%

TOTAL AMOUNT USD

956.74

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Telefon: +49 40 311706-0
Telefax: +49 40 311706-100

Buchhaltung
Telefon: +49 421 52016 315
Telefax: +49 421 52016 317
VAT-ID: DE-118597456
account@saco.de

Volksbank Lüneburger Heide eG
US Dollar Account
BLZ 240 603 00, Kto-Nr. 4 600 360 605
SWIFT-BIC: GENO DE F1 NBU
IBAN DE 19 2406 0300 4600 3606 05

Volksbank Lüneburger Heide eG
Euro Account
BLZ 240 603 00, Kto-Nr. 4 600 360 600
SWIFT-BIC: GENO DE F1 NBU
IBAN DE 57 2406 0300 4600 3606 00

Commerzbank AG
Euro Account
BLZ 200 800 00, Kto-Nr. 6 510 954 00
SWIFT-BIC: DRES DE FF 200
IBAN DE 96 2008 0000 0651 0954 00

Internet: <http://www.saco.de> · E-Mail: info@saco.de · Geschäftsführer: Harald Pahl, Andrea Briks, Christian Wahl · Gerichtsstand: Hamburg · Sitz Hamburg · HRB 40128 · Finanzamt: Hamburg-Harburg

SACO Shipping GmbH handelt bei Seetransporten einschließlich Vorlauf- und Nachlauftransporten ausschließlich als Agent von SACO Shipping Line Limited, Limassol/Zypern. SACO Shipping Line Limited Limassol arbeitet ausschließlich nach ihren jeweils gültigen Konnossements-Bedingungen, auch wenn kein Konnossement ausgestellt wurde. Diese Bedingungen können bei den jeweiligen Büros und/oder unter www.saco.de eingesehen werden.

amended on: 05.10.2023 by ECH

Mexico PL-Sheet 2023

valid from October 1st 2023

SACO Ref.: 4/06/BRE/5267 Vessel: AL MANAMAH Port: Altamira
ETA: 30.06.2024 Container: NYKU 471 037 6

B/L	COLLECT	incl.Special charges	Doc fee	Unstuffing	Admin Fee	Transm.Fee	Port Transf	On Carriage	0,00 USD	Quote No.:
5,02044E+11										
ALM252874			89,00	114,48	11,00	11,00	38,88	SAN LUIS POTOSI	234,17	tarif
ALM252915										
ALM252938										
ALM252948										
ALM252950										
ALM252959										
ALM252987										
ALM252988										
ALM252997										
ALM252949										
ALM253002										
ALM253008	359,43									
ALM253009										
ALM253011										
ALM253019										
ALM253068	167,17									
	526,60		89,00	114,48	11,00	11,00	38,88		234,17	

COLLECT FREIGHT TOTAL		526,60 USD	526,60 USD	debit to Intert
RELEASE FEE		89,00 USD		
UNSTUFFING		114,48 USD		
ADMIN FEE		11,00 USD		
TRANSMISSION FEE		11,00 USD	498,53 USD	credit to Intert
CREDIT FOR ON CARRIAGE		234,17 USD		
PORT TRANSFER		38,88 USD		
kickback as agreed USD 24,00 w/m from B/L	date 01.10.2023 FRT:	35,952	862,85 USD	debit to Intert
Hartrodt Kickback USD 4,50 w/m	FRT:		0,00 USD	debit to Intert
Quick Cargo Kickback USD 3,- w/m	FRT:		0,00 USD	
BDP / ED Forwarding Kickback USD 4,- w/m	FRT:		0,00 USD	
Linkin / Europartner Kickback USD 4,-w/m	FRT:	16,456	65,82 USD	
DHL compensation USD 20,-w/m	FRT:		0,00 USD	0,00 USD credit to Intert
TOTAL AMOUNT			956,74 USD	CREDIT OR DEBIT TO INTERTAEM

Manifest

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
Vessel: SAC3107 / AL MANAMAH
ETS:
Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
502044006046	ZEITWERK MANUFACTURING B INV NO: KA/UM/2425/00112 INV NO: KA/UM/2324/05569 INV NO: KA/UM/2324/05570 INV NO: KA/UM/2324/05573 INV NO: KA/UM/2324/05575 INV NO: KA/UM/2324/05594 INV NO: KA/UM/2324/05595 9199574 17-APR-24 TOTAL 10 WOOD EN BOXES PART NO. 580519	10	BOXES	10 WOODEN BOXES TOTAL 10 WOODEN BOXES 5805708 PSF CAPTIVE O-RING MALE 135 DEG 1 REVISION: C ART REV: 00/00/0000 5805193 PSF CAPTIVE O-RING MALE 90 DEG 1 6 REVISION: K ART REV: 00/00/0000 5805236 PSF CAPTIVE O-RING MALE 18 2ND O P REVISION: F ART REV: 00/00/0000 5805708 PSF CAPTIVE O-RING MALE 135 DEG 1 REVISION: C ART REV: 00/00/0000 6551271 SWITCH SOCKET 10MM .318 .172 Y 6 0 W/STEM REVISION: A ART REV:00/00/0000 5805193 PSF CAPTIVE O-RING MALE 90 DEG 1 6 REVISION: K ART REV: 00/00/0000 6551271 SWITCH SOCKET 10MM .318 .172 Y 6 0 W/STEM REVISION: A ART REV:00/00/0000 INV NO: KA/UM/2425/00112 DT: 12.04.2024 INV NO: KA/UM/2324/05569 DT: 30.03.2024 INV NO: KA/UM/2324/05570	1903.760	3.170

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
Vessel: SAC3107 / AL MANAMAH
ETS:
Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
				DT: 30.03.2024 INV NO: KA/UM/2324/05573 DT: 30.03.2024 INV NO: KA/UM/2324/05575 DT: 30.03.2024 INV NO: KA/UM/2324/05594 DT: 31.03.2024 INV NO: KA/UM/2324/05595 DT: 31.03.2024 S.B NO: 9199574 DT: 17.04.2024 NET WT.: 1760.08 KGS. IEC NO: AABCZ1506C HS CODE: 87089900		
ALM252874	SMR AUTOMOTIVE VISION SYSTEMS MEXICO S.A. DE C.V. CIRCUITO MEXICO NO. 260 78395 SAN LUIS POTOSI, SLP MX	1	PALLET	TEREZ PA66 7510 GF50 GRANULATE HS CODE 39081000	1130.000	2.209

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
 Vessel: SAC3107 / AL MANAMAH
 ETS:
 Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
ALM252915	CREACIONES IGUAZU, ALTAMIRA	9	PALLETS	2 PLASTIC DRUMS UN 1H1 INDOLE HS CODE : 29339920 UN 2811, TOXIC SOLID, ORGANIC, N.O.S. (INDOLE), 6.1, III 3 STEEL DRUMS UN 1A1 TRIMORAN HS CODE : 29142900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT OF ACETIC ANHYDRIDE AND 1,5,10-TRIME THYLCYCLODODECA- NE), 9, III, MARINE POLLUTANT 2 STEEL DRUMS UN 1A1 SANDACANOL HS CODE : 29061900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2E)-2-ETH YL-4-(2,2,3-TRIMETHY PENT-3-EN-1-YL)BUT-3 OL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 MEGASANTOL HS CODE : 29061900 UN 3082,	6092.630	11.827

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
Vessel: SAC3107 / AL MANAMAH
ETS:
Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
				ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((+) TRANS- 3,3-DIMETHYL-5-(2,2,3 ETHYL-CYCLOPENT-3 -PENT-4-EN-2-OL), 9, III, MARINE POLLUTANT 7 STEEL DRUMS UN 1A1 MEGASANTOL HS CODE : 29061900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((+) TRANS- 3,3-DIMETHYL-5-(2,2,3 ETHYL-CYCLOPENT-3 -PENT-4-EN-2-OL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 CINNAMIC ALCOHOL HS CODE : 29062900 UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CINNAMYL ALCOHOL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 ROSE KETONE DELTA HS CODE : 29142900 UN 3082, ENVIRONMENTALLY HAZARDOUS		

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
 Vessel: SAC3107 / AL MANAMAH
 ETS:
 Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
				SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6 ,6-TRIMETHYL-1-CYCL ENYL)BUT-2-EN-1-ONE 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 DIHYDROIONON BETA HS CODE : 29142300 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-(2,6,6-T RIMETHYL-1-CYCLOH)BUTAN-2-ONE), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 PHENYLPROPANOL HS CODE: 29062900 UN 1760, CORROSIVE LIQUID, N.O.S. (3-PHENYLPROPAN-1- 8, II, MARINE POLLUTANT, IMDG-CODE SEGREGATION GROUP 0-NOT APPLICABLE 1 DRUMS DIHYDROAMBRETTOL EXTRA PURE HS CODE : 29322090 2 DRUMS PHENYLACETALDEHY DIMETHYL ACETAL HS CODE : 29110000 12 DRUMS		

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
Vessel: SAC3107 / AL MANAMAH
ETS:
Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
				METHYL DIHYDRO JASMONATE HC 70 HS CODE : 29183000 3 DRUMS METHOXYPHENAL TOC HS CODE : 29124900 3 DRUMS METHOXYPHENAL TOC HS CODE : 29124900 2 DRUMS AMBRETTOLIDE HC HS CODE : 29322090 4 DRUMS GREYWOOD 10% IN DPG HS CODE : 33029090 2 DRUMS LACTOMIEL 10% IN DPG HS CODE : 33029090 5 DRUMS AMBRETTOLIDE HC SUPREME HS CODE : 29322090 5 DRUMS 2-ETHOXY-2,6,6-TRIMETHYLBICYCLOHEXEN-1-OL HS CODE: 29142300 5 DRUMS (E)-1-(2,6,6-TRIMETHYLBICYCLOHEXEN-1-YL)-2- 1-ONE HS CODE: 29142900 **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB		

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
 Vessel: SAC3107 / AL MANAMAH
 ETS:
 Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
ALM252938	SYMRISE S DE R.L. DE C.V. SAN NICOLAS DE LOS GARZA, N.L. VIA TAMPICO 33492323/01 4500931020	16	JERRICANS	STOWED ON 1 ONE-WAY PALLET FLAVOUR COMPOUND LIME FLAVOR FTNF HS CODE: 33021090 UN 1197, EXTRACTS, LIQUID, 3, II, (+22.00 C C.C.) **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB UN 1197/CLASS 3/PG II/FLP. +022 IMO GROSS WEIGHT: 421,600 KGS IMO NET WEIGHT : 400,000 KGS EXTRACTS, LIQUID	434.100	0.912
ALM252948	SILESIA 4500236742 80963858 4500236739 80963862 * E-MAIL :GUILLERMO.SOLIS RFC:SME991101PA	1	PALLET	10 CAJAS SIL-A-GLASS AROMA POPCORN 10 CAJAS SIL-A-GLASS TYPE FLAN FLAVOUR 1 CAJA SIL-A-GLASS AROMA FRAMBUESA (SFC) 7 CAJAS SIL-A-GLASS AROMA FRAMBUESA (SFC) HS-CODE: 33021090	583.100	1.210

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
Vessel: SAC3107 / AL MANAMAH
ETS:
Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
ALM252949	PO LIGHTING MX DN 80005501	3	PALLETS	MOTOR CAR ACCESSORIES HS-CODE: 851290	500.000	4.118
ALM252950	HYSTER-YALE MEXICO DELIVERY ADDRESS: ALTAMIRA, TAMPS PORT HYG MEXICO Y/O OSCAR SERAFIN PEREZ COL. UNIDAD NACIONAL TMS 89410 ALTAMIRA MEXICO	1	PALLET	PARTS FOR ELECTRIC FORK LIFTS HS CODE 84312000	458.000	0.538
ALM252959	GRUPO CABEZUT SA DE CV AFS REF: STOWED INTO CONT:	1	PALLET	SINGLE MACHINE HS CODE: 84794000	2800.000	6.279
ALM252987	RAYMOND MEXICO 94399803	1	PACKAGE	= 1 PALLET FASTENERS RAYMOND LOERRACH GERMANY	81.490	0.354
ALM252988	RAYMOND MEXICO 94388602	7	PACKAGES	7 CARTONS FASTENERS RAYMOND GRENOBLE FRANCE	33.250	0.059
ALM252997	VKI 10017226	1	PALLET	PUMP COVER HS-CODE: 84139100	342.800	0.634

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
Vessel: SAC3107 / AL MANAMAH
ETS:
Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
ALM253002	INV. 152407562, 152407563 142407655- 12402193/ 142407656 -12402194 PLASTIVALOIRE MEXICO SA DE CV	1	PACKAGE	PLASTIC PARTS HS CODE: 39263000, 39269097	66.000	0.384
ALM253008	ARAUCO INDUSTRIA DE MEXICO SA DE CV RFC: MSM010823770 CARRETERA PANAMER ICANA KM 959 S/N JOSE MARIA MORE LOS Y PAVON (LA TINAJA) 34390 DURANGO, DU RANGO MEXICO 3091628	8	IBCS	DEUROWOOD KS-N, MA30, FA, AD10 INVOICE: 306000000059 HS CODE: 382499, 340290, 340399	8630.000	11.232

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
Vessel: SAC3107 / AL MANAMAH
ETS:
Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
ALM253009	33512312/01 4500941644 SYMRISE S DE R.L. DE C.V. 4500941644 SAN NICOLAS DE LOS GARZA, N.L. VIA TAMPICO	2	DRUMS	FRAGRANCE COMPOUND EMBRUNS BASE MPF 2021 HS CODE: 33029090 UN 1760, CORROSIVE LIQUID, N.O.S. (7-METHYL-2H-BENZO 1,5-DIOXEPIN-3(4H)-O (CALONE), 1-METHYL-4-(4-ME THYL-3-PENTENYL)CY -ENE-1-CARBALDEHYD (1S, 2S)-2-(2-METHYL-2-PR)CYCLOHEXYL ACETATE)), 8, II, (+75.00 C C.C.), MARINE POLLUTANT, IMDG-CODE SEGREGATION GROUP 1-ACIDS **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB	57.800	0.085
ALM253011	4514293813 SOLVAY FLUOR MEXICO S.A. DE C.V. C/O LESCHACO MEXICANA, S.A. DE C.V.BVLD. RIO TAMESI 108089608 ALTAMIRA , TAMPS MEXICO	1	PALLET	60 BUCKET 600 KG NET OF NOCOLOK BRAZE PASTE 7028E IN 10 KG PE PAIL HS CODE: 3810100 **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB	658.000	1.452
ALM253019	31424060040 PLASTIVALOIRE, MEXICO SAN LUIS POTOSI	2	PACKAGES	AUTOMOTIVE PARTS HS CODE: 60063300	316.800	2.721

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Container-No.: NYKU4710376 40' HIGH CUBE CONTAINER Seal-No.: WWA010179041
Vessel: SAC3107 / AL MANAMAH
ETS:
Master-B/L.: ONEYHAME61537900

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
ALM253068	133859 / HANN182	2	PACKAGES	MACHINERY FOR THE INDUSTRIAL PREPAR ATION OF MEAT OR POULTRY, PARTS OF MACHINERY FOR THE INDUSTRI AL PREPARATION OR MANUFACTURE OF FOOD OR DRINK. HS-CODE: 843890 INVOICE: 10126211	1138.000	5.224

Total

**Quantity
67**

**Grossweight
25.225.730**

**Measurement
52.408**

SHIPPER/EXPORTER SACO SHIPPING GMBH AS AGENT OF SACO SHIPPING LINE LTD BGM.-SMIDT-STR.128 D-28195 BREMER GERMANY / DE118597456		BOOKING NO. HAME61537900	SEA WAYBILL NO. ONEYHAME61537900
CONSIGNEE INTERTEAM, S.A. DE C.V. TAX ID IS: INT961206ES7 SERVICIOS INTERNACIONALS DE COMERCIO COLIMA 114 DESPACHO 201,		EXPORT REFERENCES(for the Merchant's and/or Carrier's reference only. See back clause 8. (4).) 194718 406BRE5267A	
NOTIFY PARTY (It is agreed that no responsibility shall be attached to the Carrier or its Agents for failure to notify) INTERTEAM, S.A. DE C.V. TAX ID IS: INT961206ES7		FORWARDING AGENT-REFERENCES FMC NO.	
PRE-CARRIAGE BY		PLACE OF RECEIPT HAMBURG	RECEIVED by the Carrier in apparent good order and condition (unless otherwise stated herein) the total number or quantity of Containers or other packages or units indicated in the box entitled "Carrier's Receipt", to be carried subject to all the terms and conditions hereof from the Place of Receipt or Port of Loading to the Port of Discharge or Place of Delivery, as applicable. Delivery of the Goods to the Carrier for Carriage hereunder constitutes acceptance by the Merchant (as defined hereinafter) (i) of all the terms and conditions, whether printed, stamped or otherwise incorporated on this side and on the reverse side of this Bill of lading and the terms and conditions of the Carrier's applicable tariff(s) as if they were all signed by the Merchant, and (ii) that any prior representations and/or agreements for or in connection with Carriage of the Goods are superseded by this Bill of Lading. If this is a negotiable (To Order/of) Bill of Lading, one original Bill of Lading, duly endorsed must be surrendered by the Merchant to the Carrier (together with any outstanding Freight) in exchange for the Goods or a Delivery Order or the pin codes for any applicable Electronic Release System. If this is a non-negotiable (straight) Bill of Lading, or where issued as a Sea Waybill, the Carrier shall deliver the Goods or issue a Delivery Order or the pin codes for any applicable Electronic Release System (after payment of outstanding Freight) to the named consignee against the surrender of one original Bill of Lading, or in the case of a Sea Waybill, on production of such reasonable proof of identity as may be required by the Carrier, or in accordance with the national law at the Port of Discharge or Place of Delivery as applicable. IN WITNESS WHEREOF the Carrier or their Agent has signed the number of Bills of Lading stated at the top, all of this tenor and date, and whenever one original Bill of Lading has been surrendered all other Bills of Lading shall be void.
OCEAN VESSEL VOYAGE NO. FLAG AL MANAMAH 006W	PORT OF LOADING HAMBURG	FINAL DESTINATION(for the Merchant's reference only) ALTAMIRA	
PORT OF DISCHARGE ALTAMIRA	PLACE OF DELIVERY ALTAMIRA	TYPE OF MOVEMENT(IF MIXED, USE DESCRIPTION OF PACKAGES AND GOODS FIELD) FCL / FCL CY / CY	

(CHECK "HM" COLUMN IF HAZARDOUS MATERIAL)		PARTICULARS DECLARED BY SHIPPER BUT NOT ACKNOWLEDGED BY THE CARRIER			
CNTR. NOS. W/SEAL NOS. MARKS & NUMBERS	QUANTITY (FOR CUSTOMS DECLARATION ONLY)	H M	DESCRIPTION OF GOODS	GROSS WEIGHT	GROSS MEASUREMENT
NYKU4710376 / WWA010179041			/ 67 PACKAGES /FCL / FCL/40HQ	25225.730KGS/52.408M3	
ZEITWERK MANUFACTURING B INV NO: KA/UM/2425/00112 INV NO: KA/UM/2324/05569 INV NO: KA/UM/2324/05570 INV NO: KA/UM/2324/05573	10 H PACKAGES		10 WOODEN BOXES TOTAL 10 WOODEN BOXES 5805708 PSF CAPTIVE O-RING MALE 135 DEG 1 REVISION: C ART REV: 00/00/0000 5805193 PSF CAPTIVE O-RING MALE 90 DEG 1 6 REVISION: K ART REV: 00/00/0000	1903.760KGS	3.170CBM

** TO BE CONTINUED ON ATTACHED LIST **

Declared Cargo Value US \$. If Merchant enters a value, Carrier's limitation of liability shall not apply and the ad valorem rate will be charged.

FREIGHT & CHARGES PAYABLE AT / BY: HAMBURG, HH MEXICO CITY		SERVICE CONTRACT NO. THAMN00236A	DOC FORM NO.	COMMODITY CODE	EXCHANGE RATE	[0] ORIGINAL BILLS(S) HAVE BEEN SIGNED.
CODE	TARIFF ITEM	FREIGHTED AS	RATE	PREPAID	COLLECT	
						DATE CARGO RECEIVED
						DATE LADEN ON BOARD 15 JUN 2024
						PLACE OF BILL(S) ISSUE HAMBURG
						DATED 15 JUN 2024
The printed terms and conditions on this Bill are available at its website at www.one-line.com						SIGNED BY: OCEAN NETWORK EXPRESS (EUROPE) LTD. GERMANY BRANCH as agent for and on behalf of

Thorsten Bratthar



Ocean Network Express Pte. Ltd.
(ONE), AS CARRIER

ORIGINAL NON NEGOTIABLE

VESSEL VOYAGE: AL MANAMAH 006W

B/L NO.: ONEYHAME61537900

CNTR NOS. W/SEAL NOS. MARKS & NUMBERS	QUANTITY (FOR CUSTOMS DECLARATION ONLY)	H M	DESCRIPTION OF GOODS	GROSS WEIGHT	MEASUREMENT
INV NO: KA/UM/2324/05575 INV NO: KA/UM/2324/05594 INV NO: KA/UM/2324/05595 9199574 17-APR-24 TOTAL 10 WOOD EN BOXES PART NO. 580519			5805236 PSF CAPTIVE O-RING MALE 18 2ND O P REVISION: F ART REV: 00/00/0000 5805708 PSF CAPTIVE O-RING MALE 135 DEG 1 REVISION: C ART REV: 00/00/0000 6551271 SWITCH SOCKET 10MM .318 .172 Y 6 0 W/STEM REVISION: A ART REV:00/00/0000 5805193 PSF CAPTIVE O-RING MALE 90 DEG 1 6 REVISION: K ART REV: 00/00/0000 6551271 SWITCH SOCKET 10MM .318 .172 Y 6 0 W/STEM REVISION: A ART REV:00/00/0000 INV NO: KA/UM/2425/00112 DT: 12.04.2024 INV NO: KA/UM/2324/05569 DT: 30.03.2024 INV NO: KA/UM/2324/05570 DT: 30.03.2024 INV NO: KA/UM/2324/05573 DT: 30.03.2024 INV NO: KA/UM/2324/05575 DT: 30.03.2024 INV NO: KA/UM/2324/05594 DT: 31.03.2024 INV NO: KA/UM/2324/05595 DT: 31.03.2024 S.B NO: 9199574 DT: 17.04.2024 NET WT.: 1760.08 KGS. IEC NO: AABCZ1506C HS CODE: 87089900		
SMR AUTOMOTIVE VISION SYSTEMS MEXICO S.A. DE C.V. CIRCUITO MEXICO NO. 260 78395 SAN LUIS POTOSI, SLP MX	1 PACKAGE		TEREZ PA66 7510 GF50 GRANULATE HS CODE 39081000	1130.000KGS	2.209CBM
CREACIONES IGUAZU, ALTAMIRA	9 PACKAGES		2 PLASTIC DRUMS UN 1H1 INDOLE HS CODE : 29339920 UN 2811, TOXIC SOLID, ORGANIC, N.O.S. (INDOLE), 6.1, III 3 STEEL DRUMS UN 1A1 TRIMORAN	6092.630KGS	11.827CBM

SIGNED OCEAN NETWORK EXPRESS (EUROPE) LTD. GERMANY
BY: BRANCH

, as agent for and on behalf of

*Thorsten Hedder*Ocean Network Express Pte. Ltd.
(ONE), AS CARRIER

ORIGINAL NON NEGOTIABLE

VESSEL VOYAGE: AL MANAMAH 006W

B/L NO.: ONEYHAME61537900

CNTR NOS. W/SEAL NOS. MARKS & NUMBERS	QUANTITY (FOR CUSTOMS DECLARATION ONLY)	H M	DESCRIPTION OF GOODS	GROSS WEIGHT	MEASUREMENT
			HS CODE : 29142900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT OF ACETIC ANHYDRIDE AND 1,5,10-TRIME THYLCYCLODODECA-1,5,9-TRIE NE), 9, III, MARINE POLLUTANT 2 STEEL DRUMS UN 1A1 SANDACANOL HS CODE : 29061900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2E)-2-ETH YL-4-(2,2,3-TRIMETHYLCYCLO PENT-3-EN-1-YL) BUT-2-EN-1- OL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 MEGASANTOL HS CODE : 29061900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((+-) TRANS- 3,3-DIMETHYL-5-(2,2,3-TRIM ETHYL-CYCLOPENT-3-EN-1-YL) -PENT-4-EN-2-OL), 9, III, MARINE POLLUTANT 7 STEEL DRUMS UN 1A1 MEGASANTOL HS CODE : 29061900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((+) TRANS- 3,3-DIMETHYL-5-(2,2,3-TRIM ETHYL-CYCLOPENT-3-EN-1-YL) -PENT-4-EN-2-OL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 CINNAMIC ALCOHOL HS CODE : 29062900 UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CINNAMYL ALCOHOL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 ROSE KETONE DELTA HS CODE : 29142900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6 ,6-TRIMETHYL-1-CYCLOHEX-3- ENYL) BUT-2-EN-1-ONE), 9,		

SIGNED BY: OCEAN NETWORK EXPRESS (EUROPE) LTD. GERMANY
BRANCH

, as agent for and on behalf of



Ocean Network Express Pte. Ltd.
(ONE), AS CARRIER

ORIGINAL NON NEGOTIABLE

VESSEL VOYAGE: AL MANAMAH 006W

B/L NO.: ONEYHAME61537900

CNTR NOS. W/SEAL NOS. MARKS & NUMBERS	QUANTITY (FOR CUSTOMS DECLARATION ONLY)	H M	DESCRIPTION OF GOODS	GROSS WEIGHT	MEASUREMENT
SYMRISE S DE R.L. DE C.V. SAN NICOLAS DE LOS GARZA, N.L. VIA TAMPICO 33492323/01 4500931020	16 PACKAGES		III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 DIHYDROIONON BETA HS CODE : 29142300 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-(2,6,6-T RIMETHYL-1-CYCLOHEXEN-1-YL)BUTAN-2-ONE), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 PHENYLPROPANOL HS CODE: 29062900 UN 1760, CORROSIVE LIQUID, N.O.S. (3-PHENYLPROPAN-1-OL), 8, II, MARINE POLLUTANT, IMDG-CODE SEGREGATION GROUP 0-NOT APPLICABLE 1 DRUMS DIHYDROAMBRETTOLIDE EXTRA PURE HS CODE : 29322090 2 DRUMS PHENYLACETALDEHYDE DIMETHYL ACETAL HS CODE : 29110000 STOWED ON 1 ONE-WAY PALLET FLAVOUR COMPOUND LIME FLAVOR FTNF HS CODE: 33021090 UN 1197, EXTRACTS, LIQUID, 3, II, (+22.00 C C.C.) **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB UN 1197/CLASS 3/PG II/FLP. +022 IMO GROSS WEIGHT: 421,600 KGS IMO NET WEIGHT : 400,000 KGS EXTRACTS, LIQUID	434.100KGS	0.912CBM
SILESIA 4500236742 80963858 4500236739 80963862 * E-MAIL :GUILLERMO.SOLIS @ SILESIA.COM RFC:SME991101PA6	1 PACKAGE		10 CAJAS SIL-A-GLASS AROMA POPCORN 10 CAJAS SIL-A-GLASS TYPE FLAN FLAVOUR 1 CAJA SIL-A-GLASS AROMA FRAMBUESA (SFC) 7 CAJAS	583.100KGS	1.210CBM

 SIGNED OCEAN NETWORK EXPRESS (EUROPE) LTD. GERMANY
 BY: BRANCH

, as agent for and on behalf of



 Ocean Network Express Pte. Ltd.
 (ONE), AS CARRIER

ORIGINAL NON NEGOTIABLE

VESSEL VOYAGE: AL MANAMAH 006W

B/L NO.: ONEYHAME61537900

CNTR NOS. W/SEAL NOS. MARKS & NUMBERS	QUANTITY (FOR CUSTOMS DECLARATION ONLY)	H M	DESCRIPTION OF GOODS	GROSS WEIGHT	MEASUREMENT
HYSTER-YALE MEXICO DELIVERY ADDRESS: ALTAMIRA, TAMPS PORT HYG MEXICO Y/O OSCAR SERAFIN PEREZ COL. UNIDAD NACIONAL TMS 89410 ALTAMIRA MEXICO	1 PACKAGE		SIL-A-GLASS AROMA FRAMBUESA (SFC) . HS-CODE: 33021090 PARTS FOR ELECTRIC FORK LIFTS HS CODE 84312000	458.000KGS	0.538CBM
GRUPO CABEZUT SA DE CV AFS REF: STOWED INTO CONT:	1 PACKAGE		SINGLE MACHINE HS CODE: 84794000	2800.000KGS	6.279CBM
RAYMOND MEXICO 94399803	1 PACKAGE		= 1 PALLET FASTENERS RAYMOND LOERRACH GERMANY	81.490KGS	0.354CBM
RAYMOND MEXICO 94388602	7 PACKAGES		7 CARTONS FASTENERS RAYMOND GRENOBLE FRANCE	33.250KGS	0.059CBM
VKI 10017226	1 PACKAGE		PUMP COVER HS-CODE: 84139100	342.800KGS	0.634CBM
PO LIGHTING MX DN 80005501	3 PACKAGES		MOTOR CAR ACCESSORIES HS-CODE: 851290	500.000KGS	4.118CBM
INV. 152407562, 152407563 142407655- 12402193/ 142407656 -12402194 PLASTIVALOIRE MEXICO SA DE CV	1 PACKAGE		PLASTIC PARTS HS CODE: 39263000, 39269097	66.000KGS	0.384CBM
ARAUCO INDUSTRIA DE MEXICO SA DE CV RFC: MSM010823770	8 PACKAGES		DEUROWOOD KS-N, MA30, FA, AD10 INVOICE: 30600000059 HS CODE: 382499, 340290, 340399	8630.000KGS	11.232CBM

SIGNED OCEAN NETWORK EXPRESS (EUROPE) LTD. GERMANY
BY: BRANCH

, as agent for and on behalf of

*Thorsten Heuther*Ocean Network Express Pte. Ltd.
(ONE), AS CARRIER

ORIGINAL NON NEGOTIABLE

VESSEL VOYAGE: AL MANAMAH 006W

B/L NO.: ONEYHAME61537900

CNTR NOS. W/SEAL NOS. MARKS & NUMBERS	QUANTITY (FOR CUSTOMS DECLARATION ONLY)	H M	DESCRIPTION OF GOODS	GROSS WEIGHT	MEASUREMENT
CARRETERA PANAMER ICANA KM 959 S/N JOSE MARIA MORE LOS Y PAVON (LA TINAJA) 34390 DURANGO, DU RANGO MEXICO 3091628					
33512312/01 4500941644 SYMRISE S DE R.L. DE C.V. 4500941644 SAN NICOLAS DE LOS GARZA, N.L. VIA TAMPICO	2 PACKAGES		FRAGRANCE COMPOUND EMBRUNS BASE MPF 2021 HS CODE: 33029090 UN 1760, CORROSIVE LIQUID, N.O.S. (7-METHYL-2H-BENZO- 1,5-DIOXEPIN-3(4H)-ONE (CALONE), 1-METHYL-4-(4-ME THYL-3-PENTENYL)CYCLOHEX-3 -ENE-1-CARBALDEHYDE, (1S, 2S)-2-(2-METHYL-2-PROPANYL)CYCLOHEXYL ACETATE)), 8, II, (+75.00 C C.C.), MARINE POLLUTANT, IMDG-CODE SEGREGATION GROUP 1-ACIDS **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB	57.800KGS	0.085CBM
4514293813 SOLVAY FLUOR MEXICO S.A. DE C.V. C/O LESCHACO MEXICANA, S.A. DE C.V.BVLD. RIO TAMEST 108089608 ALTAMIRA , TAMPS MEXICO	1 PACKAGE		60 BUCKET 600 KG NET OF NOCOLOK BRAZE PASTE 7028E IN 10 KG PE PAIL HS CODE: 3810100 **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB	658.000KGS	1.452CBM
31424060040 PLASTIVALOIRE, MEXICO SAN LUIS POTOSI	2 PACKAGES		AUTOMOTIVE PARTS HS CODE: 60063300	316.800KGS	2.721CBM
133859 / HANN182	2 PACKAGES		MACHINERY FOR THE INDUSTRIAL PREPAR ATION OF MEAT OR POULTRY, PARTS OF MACHINERY FOR THE INDUSTRI AL PREPARATION OR	1138.000KGS	5.224CBM

SIGNED OCEAN NETWORK EXPRESS (EUROPE) LTD. GERMANY
BY: BRANCH

, as agent for and on behalf of

*Thorsten Hedder*Ocean Network Express Pte. Ltd.
(ONE), AS CARRIER

ORIGINAL NON NEGOTIABLE

VESSEL VOYAGE: AL MANAMAH 006W

B/L NO.: ONEYHAME61537900

CNTR NOS. W/SEAL NOS. MARKS & NUMBERS	QUANTITY (FOR CUSTOMS DECLARATION ONLY)	H M	DESCRIPTION OF GOODS	GROSS WEIGHT	MEASUREMENT
			MANUFACTURE OF FOOD OR DRINK. HS-CODE: 843890 INVOICE: 10126211		

OCEAN FREIGHT PREPAID SHIPPED ON BOARD SHIPPER'S LOAD, STOW AND COUNT					
502044006046 ALM252874 ALM252915 ALM252938 ALM252948 ALM252950 ALM252959 ALM252987 ALM252988 ALM252997 ALM253001 ALM253002 ALM253008 ALM253009 ALM253011 ALM253019 ALM253068					
AS PER MEXICAN CUSTOMS AUTHORITY REGULATION, THE INFORMATION IN THE MASTER BILL OF LADING BL CAN BE AMENDED BEING SUBJECT TO CUSTOMS PENALIZATION TO DECLARE INCORRECT INFORMATION; IF THIS BILL OF LADING IS AMENDED AND ONE OCEAN NETWORK EXPRESS SHIPPING MEXICO SA DE CV O R ANY AGENCY ON THEIR REPRESENTATION IS NOTIFIED ABOUT ANY PENALIZATION, THE SAME WILL BE UNDER SHIPPER OR CONSIGNEE RESPONSIBILITY. INLAND TRANSPORTATION IN MEXICO IS CARRIED OUT ACCORDING TO LOCAL REGULATIONS. THE INFORMA TION IN THE MASTER BILL OF LADING CAN BE AMENDED SUBJECT TO CUSTOMS REVIEW AND PENALIZATIO N IF THE BILL OF LADING IS ALLOWED TO AMEND, THE REQUESTER OF THE AMENDMENT SHALL BE RESPO NSIBLE FOR SUCH CUSTOMS PENALTY AND INDEMNIFY THE CARRIE AND ITS AGENTS AGAINST ANY CONSEQ UENCES WHATSOEVER IN RELATION TO SUCH AMENDMENT.					
AGENT AT DESTINATION ONE OCEAN NETWORK EXPRESS SHIPPING MEXICO, S.A. DE C.V. CIUDAD DE MEXICO PASEO DE LA REFORMA 180, PISO 19, COLONIA JUAREZ, DEL. CUAUHTEMOC, CIUDAD DE MEXICO, C.P. 06600 TEL: 5547808200					

SIGNED BY: OCEAN NETWORK EXPRESS (EUROPE) LTD. GERMANY
BRANCH

, as agent for and on behalf of

Thorsten Hedder

Ocean Network Express Pte. Ltd.
(ONE), AS CARRIER

Draft Bill of Lading



Teamglobal Logistics Pvt. Ltd

A Wing 701/702, Times Square, Andheri Kurla Road, Andheri (E),
Mumbai - 400 059, INDIA. Phone: +91-22-67549800,
Fax: +91-22-67549899, Email: info@teamglobal.in,
Website: www.teamglobal.in
CIN - U63090MH2005PTC152812

MTD No.: 502044006046

MTD Bill Of Lading NOT NEGOTIABLE UNLESS CONSIGNED 'TO ORDER'

Consignor / Shipper

CRANE WORLDWIDE LOGISTICS - DEL
UNIT NO 4071,4072,4081 & 4082,4TH FLOOR, VIPUL SQUARE B
BLOCK SUSHANT LOK PHASE 1 GURGAON HARYANA. TEL: +91
124 4989777

Consignee (If 'To Order' as indicate)

CWL MEXICO S DE RL DE CV
AV. PASEO DE LA REFORMA 373 INT 8B
COL. CUAUHEMOC, MPIO. CUAUHEMOC
CIUDAD DE MEXICO CP. 06500
RFC CME090205NS5 DULCE CARDENAS
OFFICE: + 52 314 33 3 68 96

Notify Address (NO CLAIM SHALL ATTACH FOR FAILURE TO NOTIFY)

SAME AS CONSIGNEE

Place of Acceptance

NHAVA SHEVA-INDIA

Port of Loading

NHAVA SHEVA

Port of Discharge

HAMBURG-GERMANY

Place of Delivery

ALTAMIRA-MEXICO,
ALTAMIRA-MEXICO

Vessel & Voyage No.

FRANKFURT EXPRESS

4312W

By accepting this Bill of Lading, shipper accepts and abides by all the terms, conditions and clauses printed and stamped on the face and reverse side of this Bill of Lading.

For freight prepaid Bill of Lading, delivery of cargo is subject to receipt of funds towards the freight, delays in receiving of funds will lead to holding of cargo delivery and Demurrage/Detention charges at Port of discharge/final destination will be payable by the consignee as per carriers tariff prior to delivery.

For Freight collect Bill of Lading, the shipper accepts his responsibility towards the carrier for payment of freight(in case of freight collect shipments)and all accrued Government duties/taxes, reshipment or disposal costs(as the case may be) if the consignee fails to take delivery of cargo within 90 days from the date of arrival of cargo at destination.

All Additional costs towards repacking, customs hold, examinations by various authorities, discrepancies in weight at origin, in transit and at destination will have to be paid by the cargo interests at actuals prior to delivery of the goods.

Container No. (s)	Mark and No.(s)	Number and kind of packages; description of goods.Said to contain	Gross weight(kg)	Volume(cbm)
FANU1101917 40' HIGHCUBE A/Seal No: HLG 9042248 C/Seal No: 4492855	TOTAL 10 WOODEN BOXES PART NO. – 5805193	10 WOODEN BOXES TOTAL 10 WOODEN BOXES 5805708 PSF CAPTIVE O-RING MALE 135 DEG 1 REVISION: C ART REV: 00/00/0000 5805193 PSF CAPTIVE O-RING MALE 90 DEG 1 6 REVISION: K ART REV: 00/00/0000 5805236 PSF CAPTIVE O-RING MALE 18 2ND O P REVISION: F ART REV: 00/00/0000 5805708 PSF CAPTIVE O-RING MALE 135 DEG 1 REVISION: C ART REV: 00/00/0000 6551271 SWITCH SOCKET 10MM .318 .172 Y 6 0 W/STEM REVISION: AART REV:00/00/0000 5805193 PSF CAPTIVE O-RING MALE 90 DEG 1 6 REVISION: K ART REV: 00/00/0000 6551271 SWITCH SOCKET 10MM .318 .172 Y 6 0 W/STEM REVISION: AART REV:00/00/0000 INV NO: KA/UM/2425/00112 DT: 12.04.2024 INV NO: KA/UM/2324/05569 DT: 30.03.2024 INV NO: KA/UM/2324/05570 DT: 30.03.2024 INV NO: KA/UM/2324/05573 DT: 30.03.2024 INV NO: KA/UM/2324/05575 DT: 30.03.2024 INV NO: KA/UM/2324/05594 DT: 31.03.2024	1903.760	3.226 LCL/LCL PREPAID

Shipping Bill Details :
9199574 17-APR-24

ALL LOCAL CHARGES LIKE LCL SERVICE
CHARGES QUAY DUES, PIER DUES,
CONGESTION SURCHARGE, THC
DELIVERY ORDER FEE AND IISF, ISPS
GSC CHARGES ARE FOR ACCOUNT OF
CONSIGNEE

Particulars above furnished by consignor / consignee

Continued in next page

Delivery Agent :

SACO SHIPPING GMBH (HAMBURG)
WOLLKAMMEREISTR 1, 21107 HAMBURG
SINISA.JOCIC@SACO.DE PH:49 40 311 706 412
FAX:49 40 311 706 400

Freight Amount

As Arranged

Number of Original
MTD (s)

0

Place and date of Issue

MUMBAI / 25-Apr-24

Freight Payable at
MUMBAI

FOR TEAMGLOBAL LOGISTICS PVT LTD,

2024-04-25 00:00:00

Taken in charge in apparently good condition herein at the place of receipt or transport and delivery as mentioned above, unless otherwise stated. The MTO in accordance with provisions contained in the MTD undertakes to perform or to procure the performance of the multimodal transport from the place at which the goods are taken in charge, to the place designated for delivery and assumes responsibility for such transport.

One of the MTD(s) must be surrendered, duly endorsed in exchange for the goods. In witness where of the original MTD all of this tenor and date have been signed in the number indicated below one of which being accomplished the other(s) to be void.

As Carrier,

(Authorised Signatory)

Weight and measurement of container not to be included (TERMS CONTINUED ON BACK HEREOF)

RIDER B/L ATTACHED

***** APPENDIX TO BILL OF LADING 502044006046 *****

Container No. (s)	Mark and No.(s)	Number and kind of packages; description of goods.Said to contain
		INV NO: KA/UM/2324/05595 DT: 31.03.2024 S.B NO: 9199574 DT: 17.04.2024 NET WT.: 1760.08 KGS. IEC NO: AABCZ1506C HS CODE: 87089900 FREIGHT & IHC PREPAID FREIGHT PREPAID AS ARRANGED

***** END OF BILL OF LADING 502044006046 *****

FOR TEAMGLOBAL LOGISTICS PVT LTD,

As Carrier,
(Authorised Signatory)

Shipper
ALPHA TRANS AS AGENT OF
BLUE ARROW CONTAINER LINE LTD.
RM 907, 9/F., CHEVALIERCOMMERCIAL
CENTER, 8 WANG HOI ROAD
KOWLOON BAY, KOWLOON, HONG KONG

B/L No.
ALM252874



SACO SHIPPING LINE LTD

Consigned to order of
CARGO Y SERVICIOS INTERNACIONALES,
S.A. DE C.V.
RCF CSI010716Q89
CALLE NORTE 176 NR. 436
COL. PENSADOR MEXICANO
15510 CIUDAD DE MEXICO, CMX, MEXICO

Notify Party and address
SAME AS CONSIGNEE
RFC: CSI 010716 Q89
PHONE: 52 55 26432100

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526702

Copy

		Place of receipt DORSTEN			
Ocean vessel AL MANAMAH		Port of loading HAMBURG			
Port of discharge ALTAMIRA		Place of delivery DAP SAN LUIS POTOSI	Freight payable BREMEN	Number of original Bills of Lading 0/ZERO	
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m³
SMR AUTOMOTIVE VISION SYSTEMS MEXICO S.A. DE C.V. CIRCUITO MEXICO NO. 260 78395 SAN LUIS POTOSI, SLP MX STOWED INTO CONTAINER NO.: NYKU4710376	1 PALLET	TEREZ PA66 7510 GF50 GRANULATE HS CODE 39081000		1130,000	2,209
			SEAL : WWA010179041		

SEAL : WWA010179041

TOTAL **1 PALLET** **1130,000 KGS** **2,209 CBM**

FREIGHT PREPAID UPTO DAP - SHIPPED ON BOARD - EXPRESS B/L

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA,C.P.06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



MULTI MODAL DANGEROUS GOODS FORM

This form may be used as a dangerous goods declaration as it meets the requirements of SOLAS 74, Chapter VII, regulation 4;

MARPOL 73/78, Annex III, regulation 4

Shipper/Consignor/Sender CREACIONES IGUAZU SA DE CV FRACC. FIMEX CALLE C2 NO. 1100 89603 ALTAMIRA Mexico	Page 1 of 2 Pages Freight Forwarder's reference 240613210117		
Consignee CREACIONES IGUAZU SA DE CV FRACC. FIMEX CALLE C2 NO. 1100 89603 ALTAMIRA Mexico	Carrier Saco Shipping Line, Limassol ALM252915 Vessel Jazan (010W) Port of loading Hamburg Port of discharge Altamira		
CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described below have been packed/loaded into the container/vehicle identified below in accordance with the applicable provisions. MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING Name/status, company Place and Date: Signature of packer	SHIPPER'S DECLARATION I hereby declare that the contents of this consignment are fully and accurately described below by the proper shipping name, and are classified, packaged, marked and labelled/placarded and are in all respects in proper condition for transport according to the applicable international and national government regulations. Name/status, company Lexzau, Scharbau on behalf of CREACIONES IGUAZU, ALTAMIRA Place and Date: Hamburg / Bremen 21.05.2024 <i>T. Liberoudis T. Glaubke</i> Signature on behalf of shipper Thomas Liberoudis / Timo Glaubke		
No.	Number & kind of packages	Description of goods	Gross mass
1)	9 pallets = 2 plastic drums UN 1H1	pallet weight: 165,380 kg Gross weight: 56,480 kg UN 2811 TOXIC SOLID, ORGANIC, N.O.S. (INDOLE), 6.1, III, EmS: F-A,S-A Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 56,480kg / 50,000kg	
	= 3 steel drums UN 1A1	Gross weight: 615,300 kg UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT OF ACETIC ANHYDRIDE AND 1,5,10-TRIMETHYLCYCLODODECA-1,5,9-TRIENE), 9, III, MARINE POLLUTANT, EmS: F-A,S-F Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 615,300kg / 570,000kg	
	= 2 steel drums UN 1A1	Gross weight: 398,000 kg UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2E)-2-ETHYL-4- (2,2,3-TRIMETHYLCYCLOPENT-3-EN-1-YL)BUT-2-EN-1- OL), 9, III, MARINE POLLUTANT, EmS: F-A,S-F Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 398,000kg / 360,000kg	
	= 1 steel drum UN 1A1	Gross weight: 199,000 kg UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((±) TRANS-3,3-DIMETHYL-5- (2,2,3-TRIMETHYL-CYCLOPENT-3-EN-1-YL)-PENT-4-EN -2-OL), 9, III, MARINE POLLUTANT, EmS: F-A,S-F Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 199,000kg / 180,000kg	
	= 7 steel drums UN 1A1	Gross weight: 204,400 kg	

MULTI MODAL DANGEROUS GOODS FORM

This form may be used as a dangerous goods declaration as it meets the requirements of SOLAS 74, Chapter VII, regulation 4;

MARPOL 73/78, Annex III, regulation 4

Shipper/Consignor/Sender CREACIONES IGUAZU SA DE CV FRACC. FIMEX CALLE C2 NO. 1100 89603 ALTAMIRA Mexico		Page 2 of 2 Pages	Freight Forwarder's reference 240613210117
		Carrier Saco Shipping Line, Limassol	
Consignee CREACIONES IGUAZU SA DE CV FRACC. FIMEX CALLE C2 NO. 1100 89603 ALTAMIRA Mexico		Vessel Jazan (010W)	
		Port of loading Hamburg	Port of discharge Altamira

No.	Number & kind of packages	Description of goods	Gross mass
	= 1 steel drum UN 1A1	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((±) TRANS-3,3-DIMETHYL-5- (2,2,3-TRIMETHYL-CYCLOPENT-3-EN-1-YL)-PENT-4-EN -2-OL), 9, III, MARINE POLLUTANT, EmS: F-A,S-F Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 204,400kg / 175,000kg	Gross weight: 221,000 kg
	= 1 steel drum UN 1A1	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CINNAMYL ALCOHOL), 9, III, MARINE POLLUTANT, EmS: F-A,S-F Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 221,000kg / 200,000kg	Gross weight: 29,200 kg
	= 1 steel drum UN 1A1	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1- (2,6,6-TRIMETHYL-1-CYCLOHEX-3-ENYL)BUT-2-EN-1-O NE), 9, III, MARINE POLLUTANT, EmS: F-A,S-F Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 29,200kg / 25,000kg	Gross weight: 29,200 kg
	= 1 steel drum UN 1A1	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4- (2,6,6-TRIMETHYL-1-CYCLOHEXEN-1-YL)BUTAN-2-ON E), 9, III, MARINE POLLUTANT, EmS: F-A,S-F Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 29,200kg / 25,000kg	Gross weight: 28,820 kg
		UN 1760 CORROSIVE LIQUID, N.O.S. (3-PHENYLPROPAN-1-OL), 8, II, MARINE POLLUTANT, IMDG-CODE SEGREGATION GROUP 0-not applicable, EmS: F-A,S-B Emergency Contact: AROMA CHEMICAL SERVICES INTERNATION GMBH 24 HRS NO: +49 551 19240 GIZ-NORD, GOTTINGEN, GERMANY Cargo gross/net weight: 28,820kg / 25,000kg	



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No. 1907/2006 (REACH)
Printed 26.04.2021
Revision 26.04.2021 (GB) Version 4.1
Phenylpropanol
25903

! SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Name of product	Phenylpropanol Prod-Nr 25903
Name of substance	3-phenylpropan-1-ol
EC No	204-587-6
REACH registration number	01-2120105028-70-****
CAS No	122-97-4

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Process categories [PROC]

PROC1 - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
 PROC2 - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
 PROC3 - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
 PROC4 - Chemical production where opportunity for exposure arises
 PROC5 - Mixing or blending in batch processes
 PROC7 - Industrial spraying
 PROC8a - Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
 PROC9 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
 PROC13 - Treatment of articles by dipping and pouring
 PROC14 - Tableting, compression, extrusion, pelletisation, granulation
 PROC8b - Transfer of substance or mixture (charging and discharging) at dedicated facilities
 PROC10 - Roller application or brushing
 PROC11 - Non industrial spraying
 PROC15 - Use as laboratory reagent
 PROC19 - Manual activities involving hand contact

Environmental release categories [ERC]

ERC1 - Manufacture of the substance
 ERC7 - Use of functional fluid at industrial site
 ERC8a - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
 ERC9a - Widespread use of functional fluid (indoor)
 ERC2 - Formulation into mixture
 ERC4 - Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

! **Recommended intended purpose(s)**
used in fragrances

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor	A.C.S. International GmbH Im Wesertal 5, D-37671 Hörter - Stahle Phone +49 (0)5531 9906142, Fax +49 (0)5531 9906 196 E-Mail regulatory@acsint.com Internet www.acsint.com
Advice	GIZ-Nord, Göttingen, Germany

1.4. Emergency telephone number

Emergency advice

Phone +49 551 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Skin Corr. 1B	H314	

Hazard statements for health hazards

H314 Causes severe skin burns and eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS05

Signal word

Danger

Hazard statements for health hazards

H314 Causes severe skin burns and eye damage.

Precautionary Statements

Prevention

P264 Wash hands thoroughly after handling.

Response

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

2.3. Other hazards

No information available.

SECTION 3: Composition/ information on ingredients

3.1. Substances

CAS No 122-97-4

3-phenylpropan-1-ol

EC No 204-587-6

REACH registration number 01-2120105028-70-****

3.2. Mixtures

not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.

In case of inhalation

In case of inhalation remove the casualty into fresh air and seek medical advice.

In case of skin contact

In case of contact with skin wash off immediately with soap and water.

Remove contaminated clothing immediately, even underwear and shoes.

Seek medical advice immediately.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Do not induce vomiting.

Seek medical advice immediately.

Rinse out mouth thoroughly with water.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam

Dry fire-extinguishing substance

Carbon dioxide

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Carbon monoxide (CO)

Carbon dioxide (CO₂)

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

Do not inhale explosion and/or combustion gases.

Additional information

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ensure adequate ventilation.
Remove persons to safety.
Use personal protective clothing.
Keep away sources of ignition.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, sawdust, general-purpose binder).
After taking up the material dispose according to regulation.

6.4. Reference to other sections

No information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

Take the usual precautions when handling with chemicals.

General protective measures

Avoid contact with eyes and skin
Do not inhale gases/vapours/aerosols.

Hygiene measures

At work do not eat, drink and smoke.
Remove soaked clothing immediately.
Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking

7.2. Conditions for safe storage, including any incompatibilities

Advice on storage compatibility

Do not store together with oxidizing agents.

Further information on storage conditions

Keep container tightly closed.
Protect from heat and direct solar radiation.
Store at cool and aired place.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice

not determined

8.2. Exposure controls

Respiratory protection

Environment-independent breathing apparatus.

Hand protection

chemical-resistant gloves

Eye protection

safety goggles with side protection

Other protection measures

protective overalls

Limitation and surveillance of the environment

not determined

! SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

colourless

Odour

sweet, floral

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
Boiling temperature / boiling range	not determined				
Melting point / Freezing point	not determined				
Flash point	> 100 °C			closed cup	
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				

	Value	Temperature	at	Method	Remark
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	0,998 - 1,003 g/cm ³	20 °C			
Vapour density	not determined				
Solubility in water	not determined				
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				
Oxidising properties No information available.					
Explosive properties No information available.					
9.2. Other information No information available.					

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Evolution of heat.

10.5. Incompatible materials

Substances to avoid

Reactions with strong oxidising agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Thermal decomposition

Remark Stable at ambient temperature.

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	2000 - 5000 mg/kg			
LD50 acute dermal	2000 - 5000 mg/kg			
Skin irritation	Causes severe skin burns and eye damage.			

! SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	61 mg/l (96 h)	zebra fish		
Daphnia	EC50 60,6 mg/l (48 h)	Daphnia magna		
Algae	EC50 109 mg/l (72 h)			

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability				readily degradable

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendations for the product

Remove in accordance with local official regulations.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	1760	1760	1760
14.2. UN proper shipping name	Corrosive liquid N.O.S. (3-phenylpropan-1-ol)	Corrosive liquid N.O.S. (3-phenylpropan-1-ol)	Corrosive liquid N.O.S. (3-phenylpropan-1-ol)
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	II	II	II
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Water hazard class 1 value from literature

Decree for case of interference/remarks no

15.2. Chemical Safety Assessment

No information available.



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SECTION 16: Other information

Training advice

no

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 4.0

Sources of key data used

Listed in EINECS and TSCA

9. EXPOSURE ASSESSMENT (and related risk characterisation)

The sections 9 and 10 of this CSR have been generated with Chesar 3.4.

9.0. Introduction

9.0.1. Overview on uses

See the description of the various uses in section 2 of the CSR.

The substance is used as a fragrance in perfumes, cosmetic and personal care products, cleaning products, detergents, washing and cleaning products. The manufacturing process is hydrogenation of the feedstock using the catalyst under elevated pressure and temperature in closed batch processes with zero emission of the substance, therefore the only expected exposure during the manufacture is possible when sampling. The consumer uses are not assessed in the CSR, because the product intended for consumers is a cosmetic and personal care product regulated by the Regulation (EC) No. 1223/2009 and the substance is diluted and only present in concentrations less than 5%, therefore the product does not have adverse effects anymore.

9.0.2. Assessment entity groups

Not applicable

9.0.3. Introduction to the assessment for the environment

9.0.3.1. Tonnage

Assessed tonnage: 90 tonnes/year based on:

- 90 tonnes/year manufactured_

Tonnage supplied per market sector:

A.I.S.E. - Use map: 90 tonnes/year

The following table provides the tonnage per use and the local tonnages used in the assessment for each environmental contributing activity. The local tonnage corresponds to a tonnage at the site for uses taking place at industrial sites and to a tonnage assumed for a town of 10 000 inhabitants for widespread uses.

Table 9.1. Tonnage for assessment

ES#	Exposure scenario (ES) name and related environmental contributing scenarios	Tonnage per use (t/year)	Daily local tonnage (t/day)	Annual local tonnage (t/year)
ES1 (M)	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition	90		
	- Manufacture; Closed systems (ERC 1)		1	90
ES2 (F)	Formulation into mixture; Perfumes, fragrances, Cosmetic and personal care products, Washing and cleaning agents, Detergents, maintenance products,	90		
	- Formulation of mixture (ERC 2)		9	90
ES3 (IS)	Industrial use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances	90		
	- Industrial use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances (ERC 7)		3	60
	- Industrial use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances; Laundry aids (ironing aids-starch spray, ironing		3	45

ES#	Exposure scenario (ES) name and related environmental contributing scenarios	Tonnage per use (t/year)	Daily local tonnage (t/day)	Annual local tonnage (t/year)
	aids-other) for consumer use (ERC 4)			
ES4 (PW)	Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances	90		
	- Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances (ERC 8a)		4.95E-5	-
	- Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances (ERC 8d)		4.95E-5	-
	- Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances (ERC 9a)		4.95E-5	-

9.0.3.2. Scope and type of assessment for the environment

The scope of exposure assessment and type of risk characterisation required for the environment are described in the following table based on the hazard conclusions presented in section 7.

Table 9.2. Type of risk characterisation required for the environment

Protection target	Risk characterisation type	Hazard conclusion (see section 7)
Fresh water	Quantitative	PNEC aqua (freshwater) = 0.061 mg/L
Sediment (freshwater)	Quantitative	PNEC sediment (freshwater) = 0.513 mg/kg sediment dw
Marine water	Quantitative	PNEC aqua (marine water) = 6E-3 mg/L
Sediment (marine water)	Quantitative	PNEC sediment (marine water) = 0.051 mg/kg sediment dw
Sewage Treatment Plant	Quantitative	PNEC STP = 3 mg/L
Air	Not needed	No hazard identified
Agricultural soil	Quantitative	PNEC soil = 0.067 mg/kg soil dw
Predator's prey (freshwater)	Not needed	No potential for bioaccumulation
Predator's prey (marine water)	Not needed	No potential for bioaccumulation
Top predator's prey (marine water)	Not needed	No potential for bioaccumulation
Predator's prey (terrestrial)	Not needed	No potential for bioaccumulation

9.0.3.3. Fate and distribution parameters

Physicochemical properties used for exposure estimation

The following substance properties are used in the fate estimation done by EUSES. They correspond to the "value used for CSA" reported in sections 1 and 4.

Table 9.3. Substance key phys-chem and fate properties

Substance property	Value
Molecular weight	≥ 136.1
Molecular weight used for the assessment	136.1

Substance property	Value
Melting point at 101 325 Pa	-18 °C
Vapour pressure	25 Pa at 20 °C
Partition coefficient (Log Kow)	2.06
Water solubility	6.97E3 mg/L at 25 °C
Biodegradation in water: screening tests	readily biodegradable

Fate (release percentage) in the modelled biological sewage treatment plant

In a standard (modelled) biological STP, the emissions are distributed in the following way:

Release to water	12.48%
Release to air	0.14%
Release to sludge	1.146%
Release degraded	86.23%

The above fractions are calculated by the SIMPLETREAT model integrated in EUSES.

9.0.3.4. Comments on assessment approach for the environment

The regional concentrations are reported in section 10.2.1.1. The local Predicted Exposure Concentrations (PECs) reported for each contributing scenario correspond to the sum of the local concentrations (Clocal) and the regional concentrations (PEC regional).

The substance is not supposed to be hazardous to the environment. The use of the substance as a fragrance added in small doses to batches of product predicts very low amount of waste and therefore leakage to the environment.

9.0.3.5. Scope and type of assessment for man via environment

The scope of exposure assessment and type of risk characterisation required for man via the environment are described in the following table based on the hazard conclusions presented in section 5.11.

Table 9.4. Type of risk characterisation required for man via the environment

Route of exposure and type of effects	Risk characterisation type	Hazard conclusion (see section 5.11)
Inhalation: Long term, Systemic	Quantitative	DNEL (Derived No Effect Level) = 2.9 mg/m ³
Oral: Long term, Systemic	Quantitative	DNEL (Derived No Effect Level) = 1.67 mg/kg bw/day

9.0.3.6. Comments on assessment approach for man via the environment

As the amount of the substance released to the environment is supposed to be very low, there is no man via environment exposure assumed.

9.0.4. Introduction to the assessment for workers

9.0.4.1. Scope and type of assessment for workers

The scope of exposure assessment and type of risk characterisation required for workers are described in the following table based on the hazard conclusions presented in section 5.11.

Table 9.5. Type of risk characterisation required for workers

Route	Type of effect	Risk characterisation type	Hazard conclusion (see section 5.11)
Inhalation	Systemic effects - long term	Quantitative	DNEL (Derived No Effect Level) = 16.4 mg/m ³
	Systemic effects - acute	Qualitative	Medium hazard (no threshold derived)

Route	Type of effect	Risk characterisation type	Hazard conclusion (see section 5.11)
	Local effects - long term	Qualitative	Medium hazard (no threshold derived)
	Local effects - acute	Qualitative	Medium hazard (no threshold derived)
Dermal	Systemic effects - long term	Quantitative	DNEL (Derived No Effect Level) = 4.67 mg/kg bw/day
	Systemic effects - acute	Qualitative	Medium hazard (no threshold derived)
	Local effects - long term	Qualitative	Medium hazard (no threshold derived)
	Local effects - acute	Qualitative	Medium hazard (no threshold derived)
Eye	Local effects	Qualitative	Medium hazard (no threshold derived)

9.0.5. Introduction to the assessment for consumers

Exposure assessment is not applicable as there are no consumer-related uses for the substance.

9.1. Exposure scenario 1: Manufacture - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

Environment contributing scenario(s):		
CS 1	Manufacture; Closed systems	ERC 1
Worker contributing scenario(s):		
CS 2	Manufacture of the substance	PROC 1
CS 3	Transfer of substance or mixture (charging/discharging) at non dedicated-facilities	PROC 8a

Further description of the use:

Substance is used as a fragrance in perfumes, cosmetic and personal care products, cleaning products, detergents, washing and cleaning products. Manufacture process is a hydrogenation of the feedstock using the catalyst under elevated pressure and temperature in closed batch processes with zero emission of the substance, therefore the only exposure during the manufacture is possible when sampling.

9.1.1. Env CS 1: Manufacture; Closed systems (ERC 1)

Manufacture process is a hydrogenation of the feedstock using the catalyst under elevated pressure and temperature in closed batch processes with zero emission of the substance, therefore the only exposure during the manufacture is possible when sampling.

9.1.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
- Daily use amount at site: ≤ 1 tonnes/day The substance is manufactured in batches depending on the demand (not continually). - Annual use amount at site: ≤ 90 tonnes/year Maximum amount of the manufactured substance does not exceed 90 tones per year.
Technical and organisational conditions and measures
- Process efficiency: Optimized water use due to e.g. re-use of rinsing water - No water used in process or maintenance (cleaning) operation
Conditions and measures related to biological sewage treatment plant
- Biological STP: Standard [Effectiveness Water: 87.51%] - Discharge rate of STP: $\geq 2E3$ m³/day - Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to external treatment of waste (including article waste)
Particular considerations on the waste treatment operations: No (low amount) Particular risks from waste treatment unlikely due to small fraction of used substance entering into the waste stage. Waste disposal according to national/local legislation is sufficient.
Other conditions affecting environmental exposure
- Receiving surface water flow rate: $\geq 1.8E4$ m³/day - Chemical waste - discontinuous generation: Spent process fluid to be disposed of as chemical waste Processing fluid can be kept in reservoir or treatment baths. Periodically, the reservoirs are emptied of the spent reservoir fluid and refilled with fresh reservoir fluid. The spent reservoir fluid is treated as chemical waste. Operators minimize the frequency of exchanging the reservoir fluid to reduce the cost of process chemicals, waste treatment and equipment downtime.

9.1.1.2. Releases

The local releases to the environment are reported in the following table. Note that the releases reported do not account for the removal in the modelled biological STP.

Table 9.6. Local releases to the environment

Release	Release estimation method	Explanations
Water	Estimated release factor (ERF - water)	Release factor before on site RMM: 0.1% Release factor after on site RMM: 0.1% Local release rate: 1 kg/day Explanation: The manufacture of the substance takes places in closed batches with minimal risk of release. The containers and all used equipment is cleaned by industrial solvents, the waste is incarcerated as chemical waste. During normal use, no release to water is expected.
Air	Estimated release factor (ERF - Air)	Release factor before on site RMM: 5% Release factor after on site RMM: 5% Local release rate: 50 kg/day Explanation: The estimated boiling point of the substance is 235 °C @ 101.325 kPa. The substance is manufactured under 250°C however, the process takes place in the reactor with zero emission. Other processes take place at room temperature, therefore there is no possibility of release to air.
Non agricultural soil	Estimated release factor (ERF - Soil)	Release factor after on site RMM: 0.1% Explanation: The substance is under normal circumstances not released to soil.

Releases to waste

Release factor to external waste: 0.1 %

The amount of waste is low. The waste is being dissolved and incarcerated, therefore no release to waste is expected under normal circumstances.

9.1.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table. The exposure estimates have been obtained with EUSES 2.1.2 unless stated otherwise.

Table 9.7. Exposure concentrations and risks for the environment and man via the environment

Protection target	Exposure concentration	Risk quantification
Fresh water	Local PEC: 6.28E-3 mg/L	RCR = 0.103
Sediment (freshwater)	Local PEC: 0.1 mg/kg dw	RCR = 0.195
Marine water	Local PEC: 6.28E-4 mg/L	RCR = 0.105
Sediment (marine water)	Local PEC: 0.01 mg/kg dw	RCR = 0.196
Sewage Treatment Plant	Local PEC: 0.062 mg/L	RCR = 0.021
Agricultural soil	Local PEC: 0.018 mg/kg dw	RCR = 0.262
Man via environment - Inhalation	Concentration in air: 3.43E-3 mg/m ³	RCR < 0.01
Man via environment - Oral	Exposure via food consumption: 1.06E-3 mg/kg bw/day	RCR < 0.01
Man via environment - combined routes		RCR < 0.01

9.1.2. Worker CS 2: Manufacture of the substance (PROC 1)

Manufacture in closed batch processes with the only possible exposure during sampling. The sampling takes place 4-5 times a day, the duration of one sampling is less than 1 minute.

9.1.2.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 100 % The manufactured substance is clean, the concentration reaches 100%.	TRA Workers 3.0
• Physical form of the used product: Liquid The natural state of the substance under the standard temperature and pressure is liquid.	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day The maximum duration of the workers activity is 8 hour per day.	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Closed batch process with occasional controlled exposure The exposure only arises when the substance is sampled (4-5 samples a day, duration of one sampling is max 1 minute).	
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374 with basic employee training) and (other) appropriate dermal protection [Effectiveness Dermal: 90%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.1.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.8. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	0.017 mg/m ³ (TRA Workers)	RCR < 0.01
Inhalation, systemic, acute	0.068 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	0.017 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	0.068 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	3.4E-3 mg/kg bw/day (TRA Workers)	RCR < 0.01
Dermal, local, long term	9.92E-4 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	9.92E-4 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR < 0.01

Remarks on exposure dataset obtained with ECETOC TRA

Explanation: The exposure is estimated based on the real processes during the manufacture and the TRA Workers Tool.

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.1.3. Worker CS 3: Transfer of substance or mixture (charging/discharging) at non dedicated-facilities (PROC 8a)

The transfer of the substance with the possibility of exposure occurs 3 times a month, with the duration of 5 minutes maximum when filling the 200 l barrels and maximum 15 minutes when filling the IBC container.

9.1.3.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 100 %	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 0.2 h/day The transfer of substance takes place cca 3 times per month, maximum duration is 1 hour, therefore the exposure lasts 0.2 hours per day in average.	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
• General ventilation: Mechanical ventilation [Effectiveness Inhalation: 44%]	
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Use of eye protection: Yes Eye goggles or face shield	
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.1.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.9. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	1.702 mg/m ³ (TRA Workers)	RCR = 0.104

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	1.702 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	2.742 mg/kg bw/day (TRA Workers)	RCR = 0.587
Dermal, local, long term	0.2 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.2 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.691

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2. Exposure scenario 2: Formulation or re-packing - Formulation into mixture; Perfumes, fragrances, Cosmetic and personal care products, Washing and cleaning agents, Detergents, maintenance products,

Market sector: A.I.S.E. - Use map

Product category formulated: PC 39: Cosmetics, personal care products

Environment contributing scenario(s):		
CS 1	Formulation of mixture	ERC 2
Worker contributing scenario(s):		
CS 2	Manufacture of cosmetic products, detergents and maintenance products	PROC 1
CS 3	Manufacture of cosmetic products, detergents and maintenance products, compounding in dosed, continuous processes with occasional controlled exposure	PROC 2
CS 4	Manufacture of cosmetic products, detergents and maintenance products, compounding, automated dosing lines	PROC 3
CS 5	Manufacturing of cosmetic products, detergents and maintenance products	PROC 4
CS 6	Mixing of ingredients in smaller and larger containers using hand mixers or automated mix systems, manufacture of cosmetic products, detergents and maintenance products	PROC 5
CS 7	Manufacturing of cosmetic products, detergents and maintenance products, transfer and manual filling of mixing vessels, discharging of vessels, pumping, washing equipment, filling final containers in dedicated facilities	PROC 8a
CS 8	Transfer and manual filling of mixing vessels, discharging of vessels, pumping, washing equipment, filling final containers in non-dedicated (8b) facilities	PROC 8b
CS 9	Manufacture of cosmetic products, detergents and maintenance products, manual dosing, weighing, combination of sub-batches	PROC 9
CS 10	Manufacture of cosmetic products, detergents, maintenance products, powders, make-up and similar products	PROC 14
CS 11	Laboratory work, quality control, analytics and design; Manufacture of cosmetic products	PROC 15
CS 12	Manufacturing of detergents and maintenance products, weighing and mixing of small volumes, preparation of solutions of solid ingredients (with or without heating), QC and creative work	PROC 19

Further description of the use:

The substance is formulated into mixtures. The concentration of the substance in the mixtures does not exceed 10% w/w.

9.2.1. Env CS 1: Formulation of mixture (ERC 2)

Formulation of mixtures intended to be used as Perfumes, fragrances, Cosmetic and personal care products, Washing and cleaning agents, detergents, maintenance products,

9.2.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
Daily use amount at site: ≤ 9 tonnes/day As daily use amount, the indicative worst case value for the substance use rate per site (Mspere) was

selected. Msperc can be used by the registrant when starting the environmental assessment. The Msperc values have been estimated in dependence of the size of the operation, the number of days emitting, and the concentration of the substance in a finished product (i.e. mixture). 250 emission days per year are assumed.
• Annual use amount at site: ≤ 90 tonnes/year
Technical and organisational conditions and measures
• Equipment cleaning: Equipment cleaning with minimized emissions to wastewater
• Type of process: Substance applied in aqueous process solution with negligible volatilization
• Process efficiency: Process optimized for highly efficient use of raw materials (II)
Conditions and measures related to biological sewage treatment plant
• Discharge rate of STP: $\geq 2E3$ m ³ /day
• Biological STP: Standard [Effectiveness Water: 87.51%]
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to external treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (low risk) ERC based assessment demonstrating control of risk with default conditions. Low risk assumed for waste life stage. Waste disposal according to national/local legislation is sufficient.
Other conditions affecting environmental exposure
• General good practice: Trained staff, spill protection including waste reuse
• Place of use: Indoor

9.2.1.2. Releases

The local releases to the environment are reported in the following table. Note that the releases reported do not account for the removal in the modelled biological STP.

Table 9.10. Local releases to the environment

Release	Release estimation method	Explanations
Water	Estimated release factor (based on SPERC AISE 2.1g.v2)	Release factor before on site RMM: 0.01% Release factor after on site RMM: 0.01% Local release rate: 0.9 kg/day Explanation: Releases to the wastewater can be the result of cleaning of mixing vessels, tubing, production/packaging lines with water. The spent cleaning water is discharged to the wastewater. The release factor originates from the Life Cycle Inventories (LCI, Franke et al., 1991). That publication formed the basis for the A/B Tables for detergent manufacturing in the EU Technical Guidance (EU TGD 2003). EU TGD 2003 Technical Guidance Document on Risk Assessment. Part II, Appendix I A Table A2 (p 226) Franke et al., 1995 Ökobilanzierung- Sachbilanz für die Waschmittel-Konfektionierung Tenside Surf. Det, 32:(508-514) Royal Haskoning 2009 Review and evaluation of environmental emission scenarios for fragrance materials during compounding of perfume oils and formulation of consumer products (Research Institute for Fragrance Materials. Ref.:9S3975.01/R0007/Nijm, 2009).
Air	Estimated release factor (based on SPERC AISE 2.1g.v2)	Release factor before on site RMM: 0% Release factor after on site RMM: 0% Local release rate: 0 kg/day Explanation:

Release	Release estimation method	Explanations
		Releases of raw materials via volatilization are quantitatively very low. For that reason, the study by Royal Haskoning (2009) does not consider to establish release factors for the use of fragrance materials in the manufacturing of detergent products. For that reason, the release factor is set to zero. EU TGD 2003 Technical Guidance Document on Risk Assessment. Part II, Appendix1 A Table A2 (p 226) Franke et al., 1995 Ökobilanzierung- Sachbilanz für die Waschmittel-Konfektionierung Tenside Surf. Det, 32:(508-514) Royal Haskoning 2009 Review and evaluation of environmental emission scenarios for fragrance materials during compounding of perfume oils and formulation of consumer products (Research Institute for Fragrance Materials. Ref.:9S3975.01/R0007/Nijm, 2009).
Non agricultural soil	Estimated release factor (based on SPERC AISE 2.1g.v2)	Release factor after on site RMM: 0% Explanation: Must be avoided EU TGD 2003 Technical Guidance Document on Risk Assessment. Part II, Appendix1 A Table A2 (p 226) Franke et al., 1995 Ökobilanzierung- Sachbilanz für die Waschmittel-Konfektionierung Tenside Surf. Det, 32:(508-514) Royal Haskoning 2009 Review and evaluation of environmental emission scenarios for fragrance materials during compounding of perfume oils and formulation of consumer products (Research Institute for Fragrance Materials. Ref.:9S3975.01/R0007/Nijm, 2009).

Releases to waste

Release factor to external waste: 0 %

Not relevant – no obligatory RMM which divert substances to waste.

EU TGD 2003 Technical Guidance Document on Risk Assessment. Part II, Appendix1 A Table A2 (p 226)
Franke et al., 1995 Ökobilanzierung- Sachbilanz für die Waschmittel-Konfektionierung Tenside Surf. Det, 32:(508-514)

Royal Haskoning 2009 Review and evaluation of environmental emission scenarios for fragrance materials during compounding of perfume oils and formulation of consumer products (Research Institute for Fragrance Materials. Ref.:9S3975.01/R0007/Nijm, 2009).

9.2.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table. The exposure estimates have been obtained with EUSES 2.1.2 unless stated otherwise.

Table 9.11. Exposure concentrations and risks for the environment and man via the environment

Protection target	Exposure concentration	Risk quantification
Fresh water	Local PEC: 5.65E-3 mg/L	RCR = 0.093
Sediment (freshwater)	Local PEC: 0.09 mg/kg dw	RCR = 0.176
Marine water	Local PEC: 5.66E-4 mg/L	RCR = 0.094
Sediment (marine water)	Local PEC: 9.01E-3 mg/kg dw	RCR = 0.177
Sewage Treatment Plant	Local PEC: 0.056 mg/L	RCR = 0.019
Agricultural soil	Local PEC: 0.015 mg/kg dw	RCR = 0.228
Man via environment - Inhalation	Concentration in air: 5.07E-6 mg/m ³	RCR < 0.01

Protection target	Exposure concentration	Risk quantification
Man via environment - Oral	Exposure via food consumption: 7.99E-5 mg/kg bw/day	RCR < 0.01
Man via environment - combined routes		RCR < 0.01

9.2.2. Worker CS 2: Manufacture of cosmetic products, detergents and maintenance products (PROC 1)

9.2.2.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: <= 10 %	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: <= 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: <= 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.2.2.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.12. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	0.01 mg/m ³ (TRA Workers)	RCR < 0.01
Inhalation, systemic, acute	0.041 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	0.01 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	0.041 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	4.08E-3 mg/kg bw/day (TRA Workers)	RCR < 0.01
Dermal, local, long term	1.19E-3 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	1.19E-3 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR < 0.01

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.3. Worker CS 3: Manufacture of cosmetic products, detergents and maintenance products, compounding in dosed, continuous processes with occasional controlled exposure (PROC 2)

9.2.3.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 %	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.2.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.13. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	1.021 mg/m ³ (TRA Workers)	RCR = 0.062
Inhalation, systemic, acute	4.086 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	1.021 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	4.086 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.164 mg/kg bw/day (TRA Workers)	RCR = 0.035
Dermal, local, long term	0.024 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.024 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic,		RCR = 0.097

Route of exposure and type of effects	Exposure concentration	Risk quantification
long-term		

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.4. Worker CS 4: Manufacture of cosmetic products, detergents and maintenance products, compounding, automated dosing lines (PROC 3)

9.2.4.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: <= 10 %	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: <= 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: <= 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.2.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.14. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	3.064 mg/m ³ (TRA Workers)	RCR = 0.187
Inhalation, systemic, acute	12.25 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	3.064 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	12.25 mg/m ³ (TRA Workers)	Qualitative risk

Route of exposure and type of effects	Exposure concentration	Risk quantification
Dermal, systemic, long term	0.083 mg/kg bw/day (TRA Workers)	RCR = 0.018
Dermal, local, long term	0.024 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.024 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.205

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.5. Worker CS 5: Manufacturing of cosmetic products, detergents and maintenance products (PROC 4)

9.2.5.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: <= 10 %	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: <= 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: <= 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.2.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.15. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
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Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	7.94 mg/m ³ (Stoffenmanager 8) Supportive exposure (not used for RC): 5.107 mg/m ³ (TRA Workers)	RCR = 0.484
Inhalation, systemic, acute	Supportive exposure (not used for RC): 20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	3.63 mg/m ³ (Stoffenmanager 8) Supportive exposure (not used for RC): 5.107 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	Supportive exposure (not used for RC): 20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.823 mg/kg bw/day (TRA Workers)	RCR = 0.176
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.66

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.6. Worker CS 6: Mixing of ingredients in smaller and larger containers using hand mixers or automated mix systems, manufacture of cosmetic products, detergents and maintenance products (PROC5)

The substance is formulated into mixtures in non-dedicated facilities. The concentration of the substance in the mixtures does not exceed 10% w/w.

9.2.6.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0

	Method
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.2.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.16. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	5.107 mg/m ³ (TRA Workers)	RCR = 0.311
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	5.107 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.645 mg/kg bw/day (TRA Workers)	RCR = 0.352
Dermal, local, long term	0.24 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.24 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.664

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

The inhalation exposure is limited to the saturated vapour concentration (if relevant).

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.7. Worker CS 7: Manufacturing of cosmetic products, detergents and maintenance products, transfer and manual filling of mixing vessels, discharging of vessels, pumping, washing equipment, filling final containers in dedicated facilities (PROC 8a)

9.2.7.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: $\leq 10\%$ Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0

	Method
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.2.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.17. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.645 mg/kg bw/day (TRA Workers)	RCR = 0.352
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.975

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.8. Worker CS 8: Transfer and manual filling of mixing vessels, discharging of vessels, pumping, washing equipment, filling final containers in non-dedicated (8b) facilities (PROC 8b)

9.2.8.1. Conditions of use

	Method
Product (article) characteristics	

	Method
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.2.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.18. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	5.107 mg/m ³ (TRA Workers)	RCR = 0.311
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	5.107 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.645 mg/kg bw/day (TRA Workers)	RCR = 0.352
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.664

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.9. Worker CS 9: Manufacture of cosmetic products, detergents and maintenance products, manual dosing, weighing, combination of

sub-batches (PROC 9)

9.2.9.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.2.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.19. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	5.107 mg/m ³ (TRA Workers)	RCR = 0.311
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	5.107 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.823 mg/kg bw/day (TRA Workers)	RCR = 0.176
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.488

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches.

The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.10. Worker CS 10: Manufacture of cosmetic products, detergents, maintenance products, powders, make-up and similar products (PROC 14)

9.2.10.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.2.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.20. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	5.107 mg/m ³ (TRA Workers)	RCR = 0.311
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	5.107 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.412 mg/kg bw/day (TRA Workers)	RCR = 0.088
Dermal, local, long term	0.06 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.06 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.4

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.11. Worker CS 11: Laboratory work, quality control, analytics and design; Manufacture of cosmetic products (PROC 15)

9.2.11.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.2.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.21. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	5.107 mg/m ³ (TRA Workers)	RCR = 0.311
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	5.107 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.041 mg/kg bw/day (TRA Workers)	RCR < 0.01
Dermal, local, long term	0.012 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.012 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.32

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.2.12. Worker CS 12: Manufacturing of detergents and maintenance products, weighing and mixing of small volumes, preparation of solutions of solid ingredients (with or without heating), QC and creative work (PROC 19)

9.2.12.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 5 %	TRA Workers 3.0
• Physical form of the used product: Liquid Product ingredients mixed, diluted and/or suspended	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 4 h/day during a whole shift	TRA Workers 3.0
Technical and organisational conditions and measures	
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Local exhaust ventilation: Yes (TRA effectiveness) [Effectiveness Inhalation: 90%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374 with basic employee training) and (other) appropriate dermal protection [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Use of eye protection: No no contact to the product possible	
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C Covers use at ambient temperatures.	TRA Workers 3.0

9.2.12.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.22. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	0.204 mg/m ³ (TRA Workers)	RCR = 0.012
Inhalation, systemic, acute	1.362 mg/m ³ (TRA Workers)	Qualitative risk

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, local, long term	0.204 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	1.362 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	2.829 mg/kg bw/day (TRA Workers)	RCR = 0.606
Dermal, local, long term	0.1 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.1 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.618

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3. Exposure scenario 3: Use at industrial sites - Industrial use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances

Market sector: A.I.S.E. - Use map

Product category used: PC 28: Perfumes, Fragrances; PC 35: Washing and Cleaning Products; PC 39:

Cosmetics, personal care products

Sector of use: SU 0: Other

Environment contributing scenario(s):		
CS 1	Industrial use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances	ERC 7
CS 2	Industrial use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances; Laundry aids (ironing aids-starch spray, ironing aids-other) for consumer use	ERC 4
Worker contributing scenario(s):		
CS 3	Industrial use of food, beverage and pharmacos products, e.g. Food processing cleaner, defoaming agent etc.	PROC 1
CS 4	Industrial use of laundry products, e.g. Laundry detergent, conditioner, Laundry aid, automatic process	PROC 2
CS 5	Industrial use of vehicle cleaning products, food, beverages and pharmacos products, e.g. food processing cleaner	PROC 4
CS 6	Mixing or blending in batch processes	PROC 5
CS 7	Ind. Use of food, beverage and pharmacos products, e.g. Chain maintenance product (automatic dip and spray)	PROC 7
CS 8	Ind. Use of vehicle cleaning products Ind. Use of food, beverage and pharmacos products - chain maintenance product (automatic spray), foam cleaner, disinfection products, animal housing care	PROC 8a
CS 9	Ind. Use of Food Beverage and Pharmacos products, e.g. Food processing cleaner, defoaming agent etc. Ind. Use of laundry products, e.g. Laundry detergent, conditioner, Laundry aid, automatic process	PROC 8b
CS 10	Transfer of substance or mixture into small containers (dedicated filling line, including weighing)	PROC 9
CS 11	Ind. Use of food, beverage and pharmacos products - animal housing care, disinfectant products	PROC 10
CS 12	Ind. Use of food, beverage and pharmacos products, e.g. Foam cleaner, disinfection product	PROC 11
CS 13	Ind. Use of food, beverage and pharmacos products - chain maintenance product (automatic spray)	PROC 13
CS 14	Use as laboratory reagent	PROC 15

Further description of the use:

The substance is used as a fragrance in cosmetics, personal care products and washing and cleaning agents.

9.3.1. Env CS 1: Industrial use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances (ERC 7)

Substance is used as a fragrance in the formulation of perfumes, cosmetic and personal care products, washing and cleaning products.

9.3.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)

• Daily use amount at site: ≤ 3 tonnes/day
• Annual use amount at site: ≤ 60 tonnes/year
Conditions and measures related to biological sewage treatment plant
• Biological STP: Standard [Effectiveness Water: 87.51%]
• Discharge rate of STP: ≥ 2E3 m ³ /day
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to external treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (no waste) No waste generated.
Other conditions affecting environmental exposure
• Receiving surface water flow rate: ≥ 1.8E4 m ³ /day

9.3.1.2. Releases

The local releases to the environment are reported in the following table. Note that the releases reported do not account for the removal in the modelled biological STP.

Table 9.23. Local releases to the environment

Release	Release estimation method	Explanations
Water	Estimated release factor (ERF - water)	Release factor before on site RMM: 0.1% Release factor after on site RMM: 0.1% Local release rate: 3 kg/day Explanation: The substance is formulated into mixtures in small concentration. No amount is expected to be released into the water. During the cleaning processes, the concentrations of the substance released to the water are almost zero.
Air	Estimated release factor (ERF - Air)	Release factor before on site RMM: 0.1% Release factor after on site RMM: 0.1% Local release rate: 3 kg/day Explanation: The processes take place around room temperature, therefore there is no possibility of evaporation to the air. No other means of release to air occur.
Non agricultural soil	Estimated release factor (ERF - Soil)	Release factor after on site RMM: 0.1% Explanation: No amount of substance is expected to be released to soil, the substance is formulated into mixtures in small amounts.

Releases to waste

Release factor to external waste: 1 %

9.3.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table. The exposure estimates have been obtained with EUSES 2.1.2 unless stated otherwise.

Table 9.24. Exposure concentrations and risks for the environment and man via the environment

Protection target	Exposure concentration	Risk quantification
Fresh water	Local PEC: 0.019 mg/L	RCR = 0.307
Sediment (freshwater)	Local PEC: 0.299 mg/kg dw	RCR = 0.583
Marine water	Local PEC: 1.88E-3 mg/L	RCR = 0.313

Protection target	Exposure concentration	Risk quantification
Sediment (marine water)	Local PEC: 0.03 mg/kg dw	RCR = 0.586
Sewage Treatment Plant	Local PEC: 0.187 mg/L	RCR = 0.062
Agricultural soil	Local PEC: 0.051 mg/kg dw	RCR = 0.757
Man via environment - Inhalation	Concentration in air: 5.08E-5 mg/m ³	RCR < 0.01
Man via environment - Oral	Exposure via food consumption: 2.82E-4 mg/kg bw/day	RCR < 0.01
Man via environment - combined routes		RCR < 0.01

9.3.2. Env CS 2: Industrial use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances; Laundry aids (ironing aids-starch spray, ironing aids-other) for consumer use (ERC 4)

Substance is used as a fragrance in the formulation of perfumes, cosmetic and personal care products, washing and cleaning products.

9.3.2.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily use amount at site: ≤ 3 tonnes/day
• Annual use amount at site: ≤ 45 tonnes/year
Technical and organisational conditions and measures
• Collect water from equipment/drums cleaning as waste: Yes [Effectiveness Water: 100%] Water explanation: All residual water expected to be collected
Conditions and measures related to biological sewage treatment plant
• Biological STP: Standard [Effectiveness Water: 87.51%]
• Discharge rate of STP: ≥ 2E3 m ³ /day
• Application of the STP sludge on agricultural soil: Yes
Conditions and measures related to external treatment of waste (including article waste)
• Particular considerations on the waste treatment operations: No (no waste) No waste generated.
Other conditions affecting environmental exposure
• Receiving surface water flow rate: ≥ 1.8E4 m ³ /day

9.3.2.2. Releases

The local releases to the environment are reported in the following table. Note that the releases reported do not account for the removal in the modelled biological STP.

Table 9.25. Local releases to the environment

Release	Release estimation method	Explanations
Water	ERC	Release factor before on site RMM: 100% Release factor after on site RMM: 0% Local release rate: 0 kg/day
Air	ERC	Release factor before on site RMM: 100% Release factor after on site RMM: 100% Local release rate: 3E3 kg/day
Non agricultural soil	ERC	Release factor after on site RMM: 5%

Releases to waste

Release factor to external waste: 1 %

9.3.2.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table. The exposure estimates have been obtained with EUSES 2.1.2 unless stated otherwise.

Table 9.26. Exposure concentrations and risks for the environment and man via the environment

Protection target	Exposure concentration	Risk quantification
Fresh water	Local PEC: 3.68E-5 mg/L	RCR < 0.01
Sediment (freshwater)	Local PEC: 5.87E-4 mg/kg dw	RCR < 0.01
Marine water	Local PEC: 4.13E-6 mg/L	RCR < 0.01
Sediment (marine water)	Local PEC: 6.59E-5 mg/kg dw	RCR < 0.01
Sewage Treatment Plant	Local PEC: 0 mg/L	RCR < 0.01
Agricultural soil	Local PEC: 6.47E-3 mg/kg dw	RCR = 0.097
Man via environment - Inhalation	Concentration in air: 0.034 mg/m ³	RCR = 0.012
Man via environment - Oral	Exposure via food consumption: 9.46E-3 mg/kg bw/day	RCR < 0.01
Man via environment - combined routes		RCR = 0.017

9.3.3. Worker CS 3: Industrial use of food, beverage and pharmacos products, e.g. Food processing cleaner, defoaming agent etc. (PROC 1)

Substance is used as a fragrance in low concentrations.

9.3.3.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: <= 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: <= 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: <= 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.3.3.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.27. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	0.01 mg/m ³ (TRA Workers)	RCR < 0.01
Inhalation, systemic, acute	0.041 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	0.01 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	0.041 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	4.08E-3 mg/kg bw/day (TRA Workers)	RCR < 0.01
Dermal, local, long term	1.19E-3 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	1.19E-3 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR < 0.01

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.4. Worker CS 4: Industrial use of laundry products, e.g. Laundry detergent, conditioner, Laundry aid, automatic process (PROC 2)

Substance is used as a fragrance in low concentrations.

9.3.4.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: <= 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: <= 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	

	Method
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.3.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.28. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	1.021 mg/m ³ (TRA Workers)	RCR = 0.062
Inhalation, systemic, acute	4.086 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	1.021 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	4.086 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.164 mg/kg bw/day (TRA Workers)	RCR = 0.035
Dermal, local, long term	0.024 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.024 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.097

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.5. Worker CS 5: Industrial use of vehicle cleaning products, food, beverages and pharmacos products, e.g. food processing cleaner (PROC 4)

Substance is used as a fragrance in low concentrations.

9.3.5.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: $\leq 10\%$ Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0

	Method
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.3.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.29. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	5.107 mg/m ³ (TRA Workers)	RCR = 0.311
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	5.107 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.823 mg/kg bw/day (TRA Workers)	RCR = 0.176
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.488

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.6. Worker CS 6: Mixing or blending in batch processes (PROC 5)

Mixing of the substance into fragrances, cosmetic and personal care products, cleaning and washing agents.

9.3.6.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: $\leq 5\%$	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour)	TRA Workers 3.0

	Method
[Effectiveness Inhalation: 70%]	
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.3.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.30. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	1.702 mg/m ³ (TRA Workers)	RCR = 0.104
Inhalation, systemic, acute	6.81 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	1.702 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	6.81 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.548 mg/kg bw/day (TRA Workers)	RCR = 0.117
Dermal, local, long term	0.08 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.08 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.221

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.7. Worker CS 7: Ind. Use of food, beverage and pharmacos products, e.g. Chain maintenance product (automatic dip and spray) (PROC 7)

Substance is used as a fragrance in low concentrations.

9.3.7.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: $\leq 1\%$ Substance is used as a fragrance in low concentrations.	TRA Workers 3.0

	Method
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 4 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374 with basic employee training) and (other) appropriate dermal protection [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.3.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.31. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.429 mg/kg bw/day (TRA Workers)	RCR = 0.092
Dermal, local, long term	0.02 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.02 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.715

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.8. Worker CS 8: Ind. Use of vehicle cleaning products Ind. Use of food, beverage and pharmacos products - chain maintenance product (automatic spray), foam cleaner, disinfection products, animal housing care (PROC

8a)

Substance is used as fragrance in low concentrations.

9.3.8.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.3.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.32. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	7.94 mg/m ³ (Stoffenmanager 8) Supportive exposure (not used for RC): 40.85 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	7.94 mg/m ³ (Stoffenmanager 8) Supportive exposure (not used for RC): 40.85 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.645 mg/kg bw/day (TRA Workers)	RCR = 0.352
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.975

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
 The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.9. Worker CS 9: Ind. Use of Food Beverage and Pharmacos products, e.g. Food processing cleaner, defoaming agent etc. Ind. Use of laundry products, e.g. Laundry detergent, conditioner, Laundry aid, automatic process (PROC 8b)

Substance is used as a fragrance in low concentrations.

9.3.9.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 100 %	TRA Workers 3.0
• Physical form of the used product: Liquid Automatic transfer of liquid from large container/ bag to pumping and dosing equipment.	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 0.1 h/day The contact time during filling is short. The dosing of products occurs automatically into dedicated systems or equipment.	TRA Workers 3.0
Technical and organisational conditions and measures	
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Use of eye protection: Yes Eye goggles or face shield	
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.3.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.33. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	1.702 mg/m ³ (TRA Workers)	RCR = 0.104
Inhalation, systemic, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, local, long term	1.702 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	2.742 mg/kg bw/day (TRA Workers)	RCR = 0.587
Dermal, local, long term	0.2 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.2 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.691

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.10. Worker CS 10: Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)

Transfer of the substance into small containers.

9.3.10.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 %	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 4 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.3.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.34. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	3.064 mg/m ³ (TRA Workers)	RCR = 0.187
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	3.064 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.823 mg/kg bw/day (TRA Workers)	RCR = 0.176
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.363

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
 The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.11. Worker CS 11: Ind. Use of food, beverage and pharmacos products - animal housing care, disinfectant products (PROC 10)

Substance is used as fragrance in low concentrations.

9.3.11.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.3.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.35. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	1.702 mg/m ³ (TRA Workers)	RCR = 0.104
Inhalation, systemic, acute	6.81 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	1.702 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	6.81 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.549 mg/kg bw/day (TRA Workers)	RCR = 0.117
Dermal, local, long term	0.04 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.04 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.221

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.12. Worker CS 12: Ind. Use of food, beverage and pharmacos products, e.g. Foam cleaner, disinfection product (PROC 11)

Substance is used as fragrance in low concentrations.

9.3.12.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 4 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374 with basic employee training) and (other) appropriate dermal protection [Effectiveness Dermal: 90%]	TRA Workers 3.0

	Method
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: <= 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.3.12.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.36. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.071 mg/kg bw/day (TRA Workers)	RCR = 0.229
Dermal, local, long term	0.05 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.05 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.852

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.13. Worker CS 13: Ind. Use of food, beverage and pharmacos products - chain maintenance product (automatic spray) (PROC 13)

Substance is used as fragrance in low concentrations

9.3.13.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: <= 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: <= 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0

	Method
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.3.13.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.37. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.645 mg/kg bw/day (TRA Workers)	RCR = 0.352
Dermal, local, long term	0.24 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.24 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.975

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.3.14. Worker CS 14: Use as laboratory reagent (PROC 15)

Use as a laboratory reagent in small batch processes.

9.3.14.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: $\leq 10\%$	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 4 h/day	TRA Workers 3.0

	Method
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.3.14.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.38. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	3.064 mg/m ³ (TRA Workers)	RCR = 0.187
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	3.064 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.041 mg/kg bw/day (TRA Workers)	RCR < 0.01
Dermal, local, long term	0.012 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.012 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.196

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4. Exposure scenario 4: Widespread use by professional workers - Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances

Market sector: A.I.S.E. - Use map

Product category used: PC 28: Perfumes, Fragrances; PC 35: Washing and Cleaning Products; PC 39:

Cosmetics, personal care products

Sector of use: SU 0: Other

Environment contributing scenario(s):		
CS 1	Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances	ERC 8a
CS 2	Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances	ERC 8d, ERC 8a
CS 3	Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances	ERC 9a
Worker contributing scenario(s):		
CS 4	Professional use of laundry products	PROC 1
CS 5	Professional use of dishwash products and maintenance products (leather care)	PROC 2
CS 6	Professional use of vehicle cleaning products and medical devices	PROC 4
CS 7	Mixing or blending in batch processes; Professional use	PROC 5
CS 8	Professional use of facade/ surface cleaning products	PROC 7
CS 9	Professional use of Laundry products, maintenance products, dishwash products, vehicle cleaning products, medical devices, general surface cleaning products, floor care products, boat cleaners, food, beverages and pharmacos products, animal housing care products, facade/surface cleaning products etc.	PROC 8a
CS 10	Professional use of dishwash products	PROC 8b
CS 11	Transfer of substance or mixture into small containers (dedicated filling line, including weighing); Professional use	PROC 9
CS 12	Professional use of general surface cleaning products, floor care products, maintenance products.	PROC 10
CS 13	Professional use of laundry products, general surface cleaning products, floor care products, vehicle cleaning products, medical devices, maintenance products, facade/ surface cleaning products	PROC 11
CS 14	Professional use of general surface cleaning products (descaling agent)	PROC 13
CS 15	Use as laboratory reagent	PROC 15
CS 16	Professional use of hand cleaners	PROC 19

Further description of the use:

The substance is used as a perfume component in cosmetics and personal care products, washing and cleaning agents, perfumes and fragrances.

9.4.1. Env CS 1: Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances (ERC 8a)

Substance is used as fragrance in low concentrations.

9.4.1.1. Conditions of use

Amount used, frequency and duration of use (or from service life)

• Daily local widespread use amount: $\leq 4.95\text{E-}5$ tonnes/day
Conditions and measures related to biological sewage treatment plant
• Biological STP: Standard [Effectiveness Water: 87.51%]
Conditions and measures related to external treatment of waste (including article waste)
• Particular considerations on the waste treatment operations

9.4.1.2. Releases

The local releases to the environment are reported in the following table. Note that the releases reported do not account for the removal in the modelled biological STP.

Table 9.39. Local releases to the environment

Release	Release estimation method	Explanations
Water	ERC	Release factor before on site RMM: 100% Release factor after on site RMM: 100% Local release rate: 0.049 kg/day
Air	ERC	Release factor before on site RMM: 100% Release factor after on site RMM: 100%
Non agricultural soil	ERC	Release factor after on site RMM: 0%

9.4.1.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table. The exposure estimates have been obtained with EUSES 2.1.2 unless stated otherwise.

Table 9.40. Exposure concentrations and risks for the environment and man via the environment

Protection target	Exposure concentration	Risk quantification
Fresh water	Local PEC: $3.46\text{E-}4$ mg/L	RCR < 0.01
Sediment (freshwater)	Local PEC: $5.51\text{E-}3$ mg/kg dw	RCR = 0.011
Marine water	Local PEC: $3.5\text{E-}5$ mg/L	RCR < 0.01
Sediment (marine water)	Local PEC: $5.58\text{E-}4$ mg/kg dw	RCR = 0.011
Sewage Treatment Plant	Local PEC: $3.09\text{E-}3$ mg/L	RCR < 0.01
Agricultural soil	Local PEC: $8.82\text{E-}4$ mg/kg dw	RCR = 0.013
Man via environment - Inhalation	Concentration in air: $5.08\text{E-}6$ mg/m ³	RCR < 0.01
Man via environment - Oral	Exposure via food consumption: $1.91\text{E-}5$ mg/kg bw/day	RCR < 0.01
Man via environment - combined routes		RCR < 0.01

9.4.2. Env CS 2: Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances (ERC 8d)

Substance is used as fragrance in low concentrations.

9.4.2.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily local widespread use amount: $\leq 4.95\text{E-}5$ tonnes/day
Conditions and measures related to biological sewage treatment plant

• Biological STP: Standard [Effectiveness Water: 87.51%]
Conditions and measures related to external treatment of waste (including article waste)
• Particular considerations on the waste treatment operations

9.4.2.2. Releases

The local releases to the environment are reported in the following table. Note that the releases reported do not account for the removal in the modelled biological STP.

Table 9.41. Local releases to the environment

Release	Release estimation method	Explanations
Water	ERC	Release factor before on site RMM: 100% Release factor after on site RMM: 100% Local release rate: 0.049 kg/day
Air	ERC	Release factor before on site RMM: 100% Release factor after on site RMM: 100%
Non agricultural soil	ERC	Release factor after on site RMM: 20%

9.4.2.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table. The exposure estimates have been obtained with EUSES 2.1.2 unless stated otherwise.

Table 9.42. Exposure concentrations and risks for the environment and man via the environment

Protection target	Exposure concentration	Risk quantification
Fresh water	Local PEC: 3.46E-4 mg/L	RCR < 0.01
Sediment (freshwater)	Local PEC: 5.51E-3 mg/kg dw	RCR = 0.011
Marine water	Local PEC: 3.5E-5 mg/L	RCR < 0.01
Sediment (marine water)	Local PEC: 5.58E-4 mg/kg dw	RCR = 0.011
Sewage Treatment Plant	Local PEC: 3.09E-3 mg/L	RCR < 0.01
Agricultural soil	Local PEC: 8.82E-4 mg/kg dw	RCR = 0.013
Man via environment - Inhalation	Concentration in air: 5.08E-6 mg/m ³	RCR < 0.01
Man via environment - Oral	Exposure via food consumption: 1.91E-5 mg/kg bw/day	RCR < 0.01
Man via environment - combined routes		RCR < 0.01

9.4.3. Env CS 3: Professional use; Cosmetics, personal care products; Washing and cleaning products; Perfumes, fragrances (ERC 9a)

The substance is used as a fragrance in cosmetic and personal care products, Fragrances and perfumes and cleaning and washing products.

9.4.3.1. Conditions of use

Amount used, frequency and duration of use (or from service life)
• Daily local widespread use amount: <= 4.95E-5 tonnes/day
Conditions and measures related to biological sewage treatment plant
• Biological STP: Standard [Effectiveness Water: 87.51%]
Conditions and measures related to external treatment of waste (including article waste)

- Particular considerations on the waste treatment operations: No (low amount)
Particular risks from waste treatment unlikely due to small fraction of used substance entering into the waste stage. Waste disposal according to national/local legislation is sufficient.

9.4.3.2. Releases

The local releases to the environment are reported in the following table. Note that the releases reported do not account for the removal in the modelled biological STP.

Table 9.43. Local releases to the environment

Release	Release estimation method	Explanations
Water	ERC	Release factor before on site RMM: 5% Release factor after on site RMM: 5% Local release rate: 2.48E-3 kg/day
Air	ERC	Release factor before on site RMM: 5% Release factor after on site RMM: 5%
Non agricultural soil	ERC	Release factor after on site RMM: 0%

9.4.3.3. Exposure and risks for the environment and man via the environment

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table. The exposure estimates have been obtained with EUSES 2.1.2 unless stated otherwise.

Table 9.44. Exposure concentrations and risks for the environment and man via the environment

Protection target	Exposure concentration	Risk quantification
Fresh water	Local PEC: 5.23E-5 mg/L	RCR < 0.01
Sediment (freshwater)	Local PEC: 8.33E-4 mg/kg dw	RCR < 0.01
Marine water	Local PEC: 5.68E-6 mg/L	RCR < 0.01
Sediment (marine water)	Local PEC: 9.05E-5 mg/kg dw	RCR < 0.01
Sewage Treatment Plant	Local PEC: 1.54E-4 mg/L	RCR < 0.01
Agricultural soil	Local PEC: 8.77E-5 mg/kg dw	RCR < 0.01
Man via environment - Inhalation	Concentration in air: 5.06E-6 mg/m ³	RCR < 0.01
Man via environment - Oral	Exposure via food consumption: 4.13E-6 mg/kg bw/day	RCR < 0.01
Man via environment - combined routes		RCR < 0.01

9.4.4. Worker CS 4: Professional use of laundry products (PROC 1)

Substance is used as fragrance in low concentrations.

9.4.4.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0

	Method
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.4.4.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.45. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	0.01 mg/m ³ (TRA Workers)	RCR < 0.01
Inhalation, systemic, acute	0.041 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	0.01 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	0.041 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	4.08E-3 mg/kg bw/day (TRA Workers)	RCR < 0.01
Dermal, local, long term	1.19E-3 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	1.19E-3 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR < 0.01

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.5. Worker CS 5: Professional use of dishwash products and maintenance products (leather care) (PROC 2)

Substance is used as a fragrance in low concentrations.

9.4.5.1. Conditions of use

	Method
Product (article) characteristics	

	Method
• Percentage (w/w) of substance in mixture/article: <= 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: <= 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: <= 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.5.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.46. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	5.107 mg/m ³ (TRA Workers)	RCR = 0.311
Inhalation, systemic, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	5.107 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	20.42 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.164 mg/kg bw/day (TRA Workers)	RCR = 0.035
Dermal, local, long term	0.024 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.024 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.347

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.6. Worker CS 6: Professional use of vehicle cleaning products and medical devices (PROC 4)

Substance is used as a fragrance in low concentrations.

9.4.6.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.6.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.47. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.823 mg/kg bw/day (TRA Workers)	RCR = 0.176
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.799

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.7. Worker CS 7: Mixing or blending in batch processes; Professional use (PROC 5)

The substance is mixed into cosmetic and personal care products, fragrances, perfumes, cleaning and washing agents as a fragrance component.

9.4.7.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % The concentration of the substance used by professionals is very low, the substance is used as a fragrance.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.7.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.48. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	1.702 mg/m ³ (TRA Workers)	RCR = 0.104
Inhalation, systemic, acute	6.81 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	1.702 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	6.81 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.371 mg/kg bw/day (TRA Workers)	RCR = 0.294
Dermal, local, long term	0.2 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.2 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.397

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
 The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.8. Worker CS 8: Professional use of facade/ surface cleaning products (PROC 7)

Substance is used as a fragrance in a low concentrations.

9.4.8.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 4 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Advanced	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.8.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.49. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.857 mg/kg bw/day (TRA Workers)	RCR = 0.184
Dermal, local, long term	0.04 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.04 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.806

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.9. Worker CS 9: Professional use of Laundry products, maintenance products, dishwash products, vehicle cleaning products, medical devices, general surface cleaning products, floor care products, boat cleaners, food, beverages and pharmacos products, animal housing care products, facade/surface cleaning products etc. (PROC 8a)

Substance is used as a fragrance in low concentrations.

9.4.9.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.9.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.50. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	4.256 mg/m ³ (TRA Workers)	RCR = 0.26
Inhalation, systemic, acute	17.02 mg/m ³ (TRA Workers)	Qualitative risk

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, local, long term	4.256 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	17.02 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.274 mg/kg bw/day (TRA Workers)	RCR = 0.059
Dermal, local, long term	0.02 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.02 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.318

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.10. Worker CS 10: Professional use of dishwash products (PROC 8b)

Substance is used as a fragrance in low concentrations.

9.4.10.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.10.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.51. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.645 mg/kg bw/day (TRA Workers)	RCR = 0.352
Dermal, local, long term	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.12 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.975

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.11. Worker CS 11: Transfer of substance or mixture into small containers (dedicated filling line, including weighing); Professional use (PROC 9)

The substance is transferred into small containers to be mixed into cosmetic and personal care products, perfumes, fragrances, cleaning and washing agents.

9.4.11.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % The concentration of the substance used by professionals is very low, the substance is used as a fragrance.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C	TRA Workers 3.0

	Method
The process takes place in room temperature.	

9.4.11.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.52. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	1.702 mg/m ³ (TRA Workers)	RCR = 0.104
Inhalation, systemic, acute	6.81 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	1.702 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	6.81 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.686 mg/kg bw/day (TRA Workers)	RCR = 0.147
Dermal, local, long term	0.1 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.1 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.251

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.12. Worker CS 12: Professional use of general surface cleaning products, floor care products, maintenance products. (PROC 10)

Substance is used as a fragrance in low concentrations.

9.4.12.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and	TRA Workers 3.0

	Method
(other) appropriate dermal protection [Effectiveness Dermal: 80%]	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.12.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.53. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	4.256 mg/m ³ (TRA Workers)	RCR = 0.26
Inhalation, systemic, acute	17.02 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	4.256 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	17.02 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.549 mg/kg bw/day (TRA Workers)	RCR = 0.117
Dermal, local, long term	0.04 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.04 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.377

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.13. Worker CS 13: Professional use of laundry products, general surface cleaning products, floor care products, vehicle cleaning products, medical devices, maintenance products, facade/ surface cleaning products (PROC 11)

Substance is used as a fragrance in low concentrations.

9.4.13.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 4 h/day	TRA Workers 3.0

	Method
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374 with basic employee training) and (other) appropriate dermal protection [Effectiveness Dermal: 90%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: $\leq 40^{\circ}\text{C}$ The process takes place in room temperature.	TRA Workers 3.0

9.4.13.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.54. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	68.09 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.071 mg/kg bw/day (TRA Workers)	RCR = 0.229
Dermal, local, long term	0.05 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.05 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.852

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):
The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.14. Worker CS 14: Professional use of general surface cleaning products (descaling agent) (PROC 13)

Substance is used as a fragrance in low concentrations.

9.4.14.1. Conditions of use

	Method
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	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 10 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.14.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.55. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	10.21 mg/m ³ (TRA Workers)	RCR = 0.623
Inhalation, systemic, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	10.21 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	40.85 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	1.645 mg/kg bw/day (TRA Workers)	RCR = 0.352
Dermal, local, long term	0.24 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.24 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.975

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.15. Worker CS 15: Use as laboratory reagent (PROC 15)

The substance is used as a laboratory reagent by professionals.

9.4.15.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % The concentration of the substance used by professionals is very low, the substance is used as a fragrance.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
• Dermal protection: No [Effectiveness Dermal: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.15.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.56. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	0.851 mg/m ³ (TRA Workers)	RCR = 0.052
Inhalation, systemic, acute	3.405 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	0.851 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	3.405 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	0.034 mg/kg bw/day (TRA Workers)	RCR < 0.01
Dermal, local, long term	9.92E-3 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	9.92E-3 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.059

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

9.4.16. Worker CS 16: Professional use of hand cleaners (PROC 19)

Substance is used as a fragrance in low concentrations.

9.4.16.1. Conditions of use

	Method
Product (article) characteristics	
• Percentage (w/w) of substance in mixture/article: ≤ 1 % Substance is used as a fragrance in low concentrations.	TRA Workers 3.0
• Physical form of the used product: Liquid	TRA Workers 3.0
Amount used (or contained in articles), frequency and duration of use/exposure	
• Duration of activity: ≤ 8 h/day	TRA Workers 3.0
Technical and organisational conditions and measures	
• General ventilation: Enhanced general ventilation (5-10 air changes per hour) [Effectiveness Inhalation: 70%]	TRA Workers 3.0
• Occupational Health and Safety Management System: Basic	TRA Workers 3.0
• Local exhaust ventilation: No [Effectiveness Inhalation: 0%, Dermal: 0%]	TRA Workers 3.0
Conditions and measures related to personal protection, hygiene and health evaluation	
• Dermal protection: Yes (Chemically resistant gloves conforming to EN374) and (other) appropriate dermal protection [Effectiveness Dermal: 80%]	TRA Workers 3.0
• Respiratory protection: No [Effectiveness Inhalation: 0%]	TRA Workers 3.0
Other conditions affecting workers exposure	
• Place of use: Indoor	TRA Workers 3.0
• Operating temperature: ≤ 40 °C The process takes place in room temperature.	TRA Workers 3.0

9.4.16.2. Exposure and risks for workers

The exposure concentrations and risk characterisation ratios (RCR) are reported in the following table.

Table 9.57. Exposure concentrations and risks for workers

Route of exposure and type of effects	Exposure concentration	Risk quantification
Inhalation, systemic, long term	4.256 mg/m ³ (TRA Workers)	RCR = 0.26
Inhalation, systemic, acute	17.02 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, long term	4.256 mg/m ³ (TRA Workers)	Qualitative risk
Inhalation, local, acute	17.02 mg/m ³ (TRA Workers)	Qualitative risk
Dermal, systemic, long term	2.829 mg/kg bw/day (TRA Workers)	RCR = 0.606
Dermal, local, long term	0.1 mg/cm ² (TRA Workers)	Qualitative risk
Dermal, local, acute	0.1 mg/cm ² (TRA Workers)	Qualitative risk
Combined routes, systemic, long-term		RCR = 0.865

Remarks on exposure dataset obtained with ECETOC TRA

The vapour pressure at operating temperature (40°C) used for the calculation is 92.67 Pa.

Risk characterisation

Qualitative risk characterisation (Inhalation, systemic, acute, Inhalation, local, long term, Inhalation, local, acute, Dermal, systemic, acute, Dermal, local, long term, Dermal, local, acute, Eye, local):

The substance is classified as Skin Corrosive Category 1B and Eye Damaging Category 1, therefore no threshold is derived. The substance is treated with protective gloves, in ventilated areas. The contact of the worker with the pure substance is minimal, only occurring when sampling and transporting into small batches. The substance is no longer corrosive to skin or eye-damaging when diluted, therefore the risk is controlled.

10. RISK CHARACTERISATION RELATED TO COMBINED EXPOSURE

10.1. Human health

10.1.1. Workers

10.1.2. Consumer

10.2. Environment (combined for all emission sources)

10.2.1. All uses (regional scale)

10.2.1.1. Total releases

The total releases to the environment from all the exposure scenarios covered are presented in the table below. This is the sum of the releases to the environments from all exposure scenarios addressed.

Where there is more than one contributing scenario for the environment for a given exposure scenario, the highest release per route across all the contributing scenarios within the use has been taken into account as the release for the use (both for the regional and the exposure due to all the widespread uses). This may lead to overestimation of the PEC.

Table 10.1. Total releases to the environment per year from all life cycle stages

Release route	Total releases per year
Water	9.02E4 kg/year
Air	1.85E5 kg/year
Soil	2.26E4 kg/year

10.2.2. Regional assessment

The regional predicted environmental concentration (PEC regional) and the related risk characterisation ratios when a PNEC is available are presented in the table below. The exposure to man via the environment from regional exposure and the related risk characterisation ratios are also provided (when relevant). The exposure concentration for human via inhalation is equal to the PEC air.

The exposure estimates have been obtained with EUSES 2.1.2 unless stated otherwise.

Table 10.2. Predicted regional exposure concentrations (Regional PEC) and risks for the environment

Protection target	Regional PEC	Risk characterisation
Fresh water	Regional PEC: 3.68E-5 mg/L	RCR < 0.01
Sediment (freshwater)	Regional PEC: 5.53E-4 mg/kg dw	RCR < 0.01
Marine water	Regional PEC: 4.13E-6 mg/L	RCR < 0.01
Sediment (marine water)	Regional PEC: 5.93E-5 mg/kg dw	RCR < 0.01
Agricultural soil	Regional PEC: 4.6E-5 mg/kg dw	RCR < 0.01
Man via environment - Inhalation	Concentration in air: 5.06E-6 mg/m ³	RCR < 0.01
Man via environment - Oral	Exposure via food consumption: 3.19E-6 mg/kg bw/day	RCR < 0.01
Man via environment - combined routes		RCR < 0.01

10.2.3. Local exposure due to all widespread uses

Not relevant as there are not several widespread uses covered in this CSR.

! SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Name of product	Trimoran
	Prod-Nr 30041
Name of substance	Reaction product of acetic anhydride and 1,5,10-trimethylcyclododeca-1,5,9-triene
EC No	482-330-9
CAS No	144020-22-4

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended intended purpose(s)
used in fragrances

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor	A.C.S. International GmbH Im Wesertal 5, D-37671 Hötter - Stahle Phone +49 (0)5531 9906142, Fax +49 (0)5531 9906 196 E-Mail regulatory@acsint.com Internet www.acsint.com
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Advice GIZ-Nord, Göttingen, Germany

1.4. Emergency telephone number

Emergency advice
Phone +49 551 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Skin Sens. 1B	H317	
Aquatic Acute 1	H400	
Aquatic Chronic 1	H410	

Hazard statements for health hazards

H317 May cause an allergic skin reaction.

Hazard statements for environmental hazards

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS07



GHS09



Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)
Printed 07.12.2020
Revision 07.12.2020 (GB) Version 1.1
Trimoran
30041

Signal word

Warning

Hazard statements for health hazards

H317 May cause an allergic skin reaction.

Hazard statements for environmental hazards

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements**Prevention**

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302 + P352 IF ON SKIN: Wash with plenty of water.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal

P501 Inhalt/Behälter den lokalen Regelungen zuführen.

2.3. Other hazards**Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/ information on ingredients**3.1. Substances**

CAS No 144020-22-4

Reaction product of acetic anhydride and 1,5,10-trimethylcyclododeca-1,5,9-triene

EC No 482-330-9

3.2. Mixtures

not applicable

SECTION 4: First aid measures**4.1. Description of first aid measures****In case of inhalation**

Ensure of fresh air.

Refer for medical treatment.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.

Remove contaminated clothing immediately, even underwear and shoes.

In case of eye contact

In case of contact with eyes rinsing with plenty of lukewarm water carefully and seek for medical treatment.

Seek medical advice immediately.

In case of ingestion

Do not induce vomiting.

Rinse out mouth thoroughly with water.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam
Dry powder
Carbon dioxide

5.2. Special hazards arising from the substance or mixture

In case of fire formation of dangerous gases possible.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Wear full protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ensure adequate ventilation.

6.2. Environmental precautions

Do not discharge into surface waters/groundwater.
Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Absorbe product.

6.4. Reference to other sections

Disposal: see section 13

Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Ventilate store-rooms thoroughly.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information available.

8.2. Exposure controls

Hand protection

chemical-resistant gloves

Eye protection

safety goggles

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

colorless to pale yellow

Odour

woody

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
Acid number	< 1 mgKOH/g				
Boiling temperature / boiling range	not determined				
Melting point / Freezing point	not determined				
Flash point	148 °C			closed cup	
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	264 °C				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				

	Value	Temperature	at	Method	Remark
Relative density	0,98 - 0,99 g/cm ³	20 °C			
Vapour density	not determined				
Solubility in water	4,8 mg/l	20 °C			
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				

Oxidising properties

No information available.

Explosive properties

No information available.

9.2. Other information

No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

Substances to avoid

Acid

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 5000 mg/kg	rat		
LD50 acute dermal	> 2000 mg/kg	rat	OECD 402	
Skin sensitization	May cause an allergic skin reaction.			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity				No mutagenity, after different in-vitro studies.
Reproduction-Toxicity				No indications of toxic effects were observed in reproduction studies in animals.
Carcinogenicity				No indications of carcinogenic effects are available from long-term trials.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 0,63 mg/l (96 h)		OECD 203	
Daphnia	EC50 1,82 mg/l (48 h)		OECD 202	
Algae	EC50 3,6 mg/l (72 h)		OECD 201	

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability				not readily degradable

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil



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No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendations for the product

In accordance with local official regulations take to chemical / physical treatment plant.

! SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	3082	3082	3082
14.2. UN proper shipping name	Environmentally hazardous substances, liquid, n.o.s	Environmentally hazardous substances, liquid, n.o.s	Environmentally hazardous substances, liquid, n.o.s
14.3. Transport hazard class(es)	9	9	9
14.4. Packing group	III	III	III
14.5. Environmental hazards	Yes	Yes	Yes

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Land and inland navigation transport ADR/RID

Hazard label(s) 9

Marine transport IMDG

MARINE POLLUTANT

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture



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Printed 07.12.2020
Revision 07.12.2020 (GB) Version 1.1
Trimoran
30041

National regulations

Water hazard class 2 value from literature

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information**Recommended uses and restrictions**

National and local regulations concerning chemicals shall be observed.

Further information

Indication of changes: "!" = Data changed compared with the previous version.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.0

! SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Name of product	Orriwood Prod-Nr 61062 / 61862
Name of substance	2-ethoxy-2,6,6-trimethyl-9-methylenebicyclo[3.3.1]nonane
EC No	272-447-1
CAS No	68845-00-1

1.2. Relevant identified uses of the substance or mixture and uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor	A.C.S. International GmbH Im Wesertal 5, D-37671 Hörter - Stahle Phone +49 (0)5531 9906142, Fax +49 (0)5531 9906 196 E-Mail regulatory@acsint.com Internet www.acsint.com
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Advice GLZ-Nord, Göttingen, Germany

1.4. Emergency telephone number

Emergency advice
Phone +49 551 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Aquatic Chronic 2	H411	

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS09

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

P273 Avoid release to the environment.

Response

P391 Collect spillage.

2.3. Other hazards

No information available.

! SECTION 3: Composition/ information on ingredients**3.1. Substances****Description**

Sum of the isomers

CAS No 68845-00-1

2-ethoxy-2,6,6-trimethyl-9-methylenebicyclo[3.3.1]nonane

EC No 272-447-1

3.2. Mixtures

not applicable

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

In the event of persistent symptoms receive medical treatment.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.

In case of skin contact

In case of contact with skin wash off with soap and water.

Remove contaminated clothing immediately, even underwear and shoes.

Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Turn a vomiting person lying on his back onto his side.

Do not induce vomiting.

Call for a doctor immediately.

Rinse out mouth thoroughly with water.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Foam

Dry fire-extinguishing substance

Carbon dioxide

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Carbon monoxide (CO)

Carbon dioxide (CO₂)

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

Do not inhale explosion and/or combustion gases.

Additional information

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ensure adequate ventilation.

Keep away sources of ignition.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, sawdust, general-purpose binder).

After taking up the material dispose according to regulation.

6.4. Reference to other sections

No information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

Take the usual precautions when handling with chemicals.

General protective measures

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

Hygiene measures

At work do not eat, drink and smoke.

Remove soaked clothing immediately.

Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking

7.2. Conditions for safe storage, including any incompatibilities

Advice on storage compatibility

Do not store together with oxidizing agents.



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Printed 10.01.2020
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Orriwood
61062 / 61862

Further information on storage conditions

Keep container tightly closed.
Protect from heat and direct solar radiation.
Store at cool and aired place.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice

not determined

8.2. Exposure controls

Respiratory protection

In case of insufficient ventilation or long-term effect use breathing apparatus.

Hand protection

chemical-resistant gloves

Eye protection

safety goggles with side protection

Other protection measures

Light protective clothing.

Limitation and surveillance of the environment

not determined

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

colourless, clear

Odour

woody, amber, orris

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
Acid number	< 1 mgKOH/g				
boiling point	267 - 268 °C		1,013 hPa		
melting point				No data available	
Flash point	> 100 °C			closed cup	
Vapourisation rate	not determined				

	Value	Temperature	at	Method	Remark
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	0,925 - 0,931 g/cm ³	25 °C			
Vapour density	not determined				
Solubility in water					insoluble
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				
Oxidising properties					
No information available.					
Explosive properties					
No information available.					
9.2. Other information					
No information available.					

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

No hazardous reactions known.

10.5. Incompatible materials**Substances to avoid**

Reactions with strong acids and alkalies.

Reactions with strong oxidising agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Thermal decomposition

Remark Stable at ambient temperature.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 5000 mg/kg	rat		
LD50 acute dermal	> 2000 mg/kg	rabbit		
Skin irritation	No data available	rabbit		
Eye irritation	No data available	rabbit eye		
Skin sensitization	No data available	Guinea pig		

SECTION 12: Ecological information**12.1. Toxicity**

No information available.

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects



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Orriwood
61062 / 61862

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendations for the product

Remove in accordance with local official regulations.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

! SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	3082	3082	3082
14.2. UN proper shipping name	Environmentally hazardous substances, liquid, n.o.s	Environmentally hazardous substances, liquid, n.o.s	Environmentally hazardous substances, liquid, n.o.s
14.3. Transport hazard class(es)	9	9	9
14.4. Packing group	III	III	III
14.5. Environmental hazards	Yes	Yes	Yes

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Land and inland navigation transport ADR/RID

Hazard label(s) 9

Marine transport IMDG

MARINE POLLUTANT

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Water hazard class 2 value from literature

Decree for case of interference/remarks no



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No. 1907/2006 (REACH)
Printed 10.01.2020
Revision 10.01.2020 (GB) Version 2.3
Orriwood
61062 / 61862

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Training advice

no

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 2.2

Sources of key data used

Listed in EINECS and TSCA



Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)
Printed 27.03.2020
Revision 27.03.2020 (GB) Version 3.6
Indole
50905

! SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Name of product	Indole
	Prod-Nr 50905
Name of substance	Indole
EC No	204-420-7
REACH registration number	01-2120745892-45-****
CAS No	120-72-9

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended intended purpose(s)

used in fragrances and flavors

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor	A.C.S. International GmbH Im Wesertal 5, D-37671 Hötter - Stahle Phone +49 (0)5531 9906142, Fax +49 (0)5531 9906 196 E-Mail regulatory@acsint.com Internet www.acsint.com
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Advice	GIZ-Nord, Göttingen, Germany
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1.4. Emergency telephone number

Emergency advice	Phone +49 551 19240
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Acute Tox. 3	H311	
Acute Tox. 4	H302	
Eye Dam. 1	H318	
Skin Sens. 1	H317	

Hazard statements for health hazards

H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS05



GHS06

Signal word

Danger

Hazard statements for health hazards

H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Precautionary Statements

Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

No information available.

SECTION 3: Composition/ information on ingredients

3.1. Substances

CAS No 120-72-9 Indole

EC No 204-420-7

REACH registration number 01-2120745892-45-****

3.2. Mixtures

not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.

In case of inhalation

In case of inhalation remove the casualty into fresh air and seek medical advice.

In case of skin contact

In case of contact with skin wash off immediately with soap and water.
Remove contaminated clothing immediately, even underwear and shoes.
Seek medical advice immediately.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Turn a vomiting person lying on his back onto his side.

Do not induce vomiting.

Seek medical advice immediately.

Rinse out mouth and give plenty of water to drink.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Foam

Dry fire-extinguishing substance

Carbon dioxide

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Carbon monoxide (CO)

Carbon dioxide (CO₂)

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

Use breathing apparatus with independent air supply.

Do not inhale explosion and/or combustion gases.

Additional information

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Ensure adequate ventilation.

Remove persons to safety.

Use personal protective clothing.

Keep away sources of ignition.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, sawdust, general-purpose binder).

After taking up the material dispose according to regulation.

6.4. Reference to other sections

No information available.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

Take the usual precautions when handling with chemicals.

General protective measures

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

Hygiene measures

At work do not eat, drink and smoke.

Remove soaked clothing immediately.

Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking

7.2. Conditions for safe storage, including any incompatibilities

Advice on storage compatibility

Do not store together with oxidizing agents.

Further information on storage conditions

Keep container tightly closed.

Protect from heat and direct solar radiation.

Store at cool and aired place.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Additional advice

not determined

8.2. Exposure controls

Respiratory protection

Environment-independent breathing apparatus.

Hand protection

chemical-resistant gloves

Eye protection

safety goggles with side protection

Other protection measures

protective clothing

Limitation and surveillance of the environment

not determined

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

crystalline powder

Colour

colourless

Odour

fecal,floral odor in high dilution

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
boiling point	253 - 254 °C				
melting point	51 - 53 °C				
Flash point	> 100 °C			closed cup	
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	not determined				
Vapour density	not determined				
Solubility in water					insoluble
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				

Oxidising properties

No information available.

Explosive properties

No information available.

9.2. Other information

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Evolution of heat.

10.5. Incompatible materials**Substances to avoid**

Reactions with strong oxidising agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Hazardous decomposition products:

Thermal decomposition

Remark	Stable at ambient temperature.
--------	--------------------------------

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 1000 mg/kg	rat		Harmful if swallowed.
LD50 acute dermal	790 mg/kg	rabbit		Toxic in contact with skin.
Skin irritation	low irritant effect - not necessary to label	rabbit		
Eye irritation	Causes serious eye damage.			
Skin sensitization	May cause an allergic skin reaction.			

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Daphnia	EC50 1 mg/l (48 h)	Daphnia magna		
Algae	EC100 < 10 mg/l (96 h)	Scenedesmus quadricauda		

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendations for the product

Remove in accordance with local official regulations.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	2811	2811	2811
14.2. UN proper shipping name	Poisonous solid, organic, n.o.s.	Toxic solid, organic, n.o.s.	Toxic solid, organic, n.o.s.
14.3. Transport hazard class(es)	6.1	6.1	6.1
14.4. Packing group	III	III	III



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	ADR/RID	IMDG	IATA-DGR
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Land and inland navigation transport ADR/RID

Hazard label(s) 6.1

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Water hazard class 1 value from literature

Decree for case of interference/remarks no

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Training advice

no

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 3.5

Sources of key data used

Listed in EINECS and TSCA

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*** SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1 Product identifier

Trade name/designation	Rose Ketone beta
Prod-Nr	72901
Substance name	(E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one
EC No.	245-842-1
REACH No.	01-2120094433-55-****
CAS No.	23726-91-2

*** 1.2 Relevant identified uses of the substance or mixture and uses advised against**

*** Process categories [PROC]**

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.
PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC4 Chemical production where opportunity for exposure arises
PROC5 Mixing or blending in batch processes
PROC7 Industrial spraying
PROC8a Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC10 Roller application or brushing
PROC11 Non industrial spraying
PROC13 Treatment of articles by dipping and pouring
PROC14 Tableting, compression, extrusion, pelletisation, granulation
PROC15 Use as laboratory reagent

*** Environmental release categories [ERC]**

ERC2 Formulation into mixture
ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)
ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

*** Product Categories [PC]**

PC3 Air care products
PC8 Biocidal products
PC28 Perfumes, fragrances
PC31 Polishes and wax blends
PC35 Washing and cleaning products
PC39 Cosmetics, personal care products

*** Use of the substance/mixture**

Air care products
Biocidal products (e.g. Disinfectants, pest control)
Perfumes, fragrances
Polishes and wax blends
Washing and cleaning products (including solvent based products)
Cosmetics, personal care products
Flavouring agents
Food flavouring and nutrient

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1.3 Details of the supplier of the safety data sheet

Supplier

Aroma Chemical Services International GmbH
 Im Wesertal 5
 37671 Hörter-Stahle
 Germany

Telephone +49 (0)5531 9906 142
 Telefax +49 (0)5531 9906 196
 E-mail regulatory@acsint.com
 Website www.acsint.com

1.4 Emergency telephone number

GLZ-Nord, Göttingen, Germany +49 551 19240

* SECTION 2: Hazards identification

* 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
--	--------------------------

Skin Irrit. 2, H315	On basis of test data.
Skin Sens. 1B, H317	On basis of test data.
Aquatic Chronic 2, H411	On basis of test data.

Hazard statements for health hazards

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

* 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



GHS07



GHS09

Signal word

Warning

Hazard statements

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P264 Wash hands thoroughly after handling.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing and eye protection/face protection.
 P362 Take off contaminated clothing.
 P302 + P352 IF ON SKIN: Wash with plenty of water.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

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2.3 Other hazards

Adverse human health effects and symptoms

May cause sensitization by skin contact.

* SECTION 3: Composition / information on ingredients

* 3.1 Substances

Substance name	(E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one
EC No.	245-842-1
REACH No.	01-2120094433-55-****
CAS No.	23726-91-2
Molecular weight	192.30 g/mol
Molecular formula	C ₁₃ H ₂₀ O
Purity	> 94.0 %
Synonyms	IUPAC: 1-(2,6,6-trimethylcyclohex-1-en-1-yl)but-2-en-1-one

Additional information

Sum of the isomers

3.2 Mixtures

not applicable

* SECTION 4: First aid measures

* 4.1 Description of first aid measures

- * **General information**
Remove contaminated, saturated clothing immediately.
When in doubt or if symptoms are observed, get medical advice.

Following inhalation

In case of inhalation remove the casualty into fresh air and seek medical advice.

- * **Following skin contact**

After contact with skin, wash immediately with plenty of water and soap.
Remove contaminated, saturated clothing immediately.
In case of skin reactions, consult a physician.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

- * **Following ingestion**

Do NOT induce vomiting.
Seek medical advice immediately.
Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

No data available

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4.3 Indication of any immediate medical attention and special treatment needed

No data available

* SECTION 5: Firefighting measures

* 5.1 Extinguishing media

* Suitable extinguishing media

alcohol resistant foam
Dry extinguishing powder
Carbon dioxide (CO₂)
Water mist

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide
Carbon dioxide (CO₂)

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Do not inhale explosion and combustion gases.
Use water spray jet to protect personnel and to cool endangered containers.

* SECTION 6: Accidental release measures

* 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.
Remove persons to safety.
Use personal protection equipment.
Remove all sources of ignition.

* For emergency responders

Keep people away and stay on the upwind side.
Use appropriate respiratory protection.
Personal protection equipment

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment

Suitable material for taking up:
Sand
Sawdust
Universal binder
After taking up the material dispose according to regulation.

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6.4 Reference to other sections

No data available

* SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Take the usual precautions when handling with chemicals.

Keep away from sources of ignition - No smoking.

Avoid:

Eye contact

Skin contact

Do not inhale gases/vapours/aerosols.

Advices on general occupational hygiene

When using do not eat, drink, smoke, sniff.

Remove contaminated, saturated clothing immediately.

Wash hands before breaks and after work.

* 7.2 Conditions for safe storage, including any incompatibilities

* Requirements for storage rooms and vessels

Keep container tightly closed.

Materials to avoid

Do not store together with:

Oxidising agent

* Further information on storage conditions

Protect from heat and direct solar radiation.

Keep in a cool, well-ventilated place.

Store product under (gas):

Nitrogen

7.3 Specific end use(s)

No data available

* SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No data available

* 8.2 Exposure controls

* Appropriate engineering controls

* Technical measures to prevent exposure

The use of engineering measures such as enclosed processing equipment, local exhaust ventilation systems, or other engineering measures to reduce personal exposure is recommended in general.

* Personal protection equipment

Eye/face protection

Eye glasses with side protection

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Hand protection

chemical-resistant gloves

Body protection:

Protective clothing

*

Respiratory protection

Respiratory protection necessary at:
insufficient ventilation
insufficient exhaust
Suitable respiratory protection apparatus:
Self-contained respirator (breathing apparatus)
Filtering device (EN 147)
Multi-purpose filter ABEK

*

Environmental exposure controls

*

Technical measures to prevent exposure

If possible use in closed systems.

*** SECTION 9: Physical and chemical properties**

*** 9.1 Information on basic physical and chemical properties**

Physical state

liquid

Colour

colorless to pale yellow

*

Odour

floral
fruity
rose
Tobacco

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	Melting point 9 °C	OECD 102	ECHA REACH Dossier
Boiling point or initial boiling point and boiling range	254 °C pressure 97 kPa	OECD 103	ECHA REACH Dossier
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	> 100 °C	Regulation (EC) No. 440/2008, Annex A.9	ECHA REACH Dossier
Auto-ignition temperature	approx. 265 °C	Regulation (EC) No. 440/2008, Annex A.15	ECHA REACH Dossier Analogy conclusion CAS No.=24720-09-0 Rose Ketone alpha
Decomposition temperature			Stable at ambient temperature.

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	Value	Method	Source, Remark
pH	not determined		
Viscosity	not determined		
Solubility(ies)	Water solubility approx. 194 mg/L (20°C)	OECD 105	ECHA REACH Dossier pH=5,8
Partition coefficient n-octanol/water (log value)	3.68 (22.5°C)	OECD 117	ECHA REACH Dossier
Vapour pressure	2.6 Pa (25°C)	OECD 104	ECHA REACH Dossier
Density and/or relative density	Relative density 0.934- 0.942 g/cm ³ (20-20°C)	OECD 109	ACS International Specification
Relative vapour density	not determined		
particle characteristics			not applicable

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Evolution of heat.

10.5 Incompatible materials

Oxidising agent, strong

10.6 Hazardous decomposition products

Carbon monoxide
Carbon dioxide

* SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

* Acute toxicity

* Animal data

	Effective dose	Method, Evaluation	Source, Remark
Acute oral toxicity	LD50: > 2000 mg/kg Species Rat	OECD 401	ECHA REACH Dossier
Acute dermal toxicity	not determined		
Acute inhalation toxicity	not determined		

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- * **Assessment/classification**
Based on available data, the classification criteria are not met.

* **Skin corrosion/irritation**

* **In vitro skin test**

Result	Method
irritant. Source: ECHA REACH Dossier	OECD 439

- * **Assessment/classification**
Irritating to skin.

* **Serious eye damage/irritation**

Animal data

Result / Evaluation	Method	Source, Remark
Conjunctival redness. Conjunctival oedema (chemosis). reversible. Species Rabbit		ECHA REACH Dossier

- * **Other information**
reversible.

- * **Assessment/classification**
Based on available data, the classification criteria are not met.

Sensitisation to the respiratory tract

not determined

* **Skin sensitisation**

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
May cause an allergic skin reaction.	Species Mouse	OECD 429	ECHA REACH Dossier

- * **Assessment/classification**
Other skin sensitiser (Subcategory 1B)

* **Germ cell mutagenicity**

	Value	Method	Result / Evaluation	Remark
In vitro mutagenicity/genot otoxicity	Gene mutation Species Salmonella typhimurium	OECD 471 (Ames test)	negative.	ECHA REACH Dossier

- * **Assessment/classification**
Based on available data, the classification criteria are not met.

Carcinogenicity

not determined

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Reproductive toxicity

not determined

* Overall Assessment on CMR properties

Based on available data, the classification criteria are not met.

STOT-single exposure

not determined

STOT-repeated exposure

not determined

Aspiration hazard

not determined

11.2 Information on other hazards

No data available

* SECTION 12: Ecological information

* 12.1 Toxicity

* Aquatic toxicity

	Effective dose	Method, Evaluation	Source, Remark
Acute (short-term) fish toxicity	not determined		
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	EC50 9.5 mg/L Species Daphnia sp. Test duration 48 h	OECD 202	ECHA REACH Dossier (Q)SAR
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	EC50 8.8 mg/L Test duration 72 h	OECD 201	ECHA REACH Dossier (Q)SAR
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

* Assessment/classification

May cause long lasting harmful effects to aquatic life.

* 12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Activated sludge Test duration 28 d	OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F	BOD (% of ThOD). Not readily biodegradable (according to OECD criteria)

* Assessment/classification

Not readily biodegradable (according to OECD criteria)

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12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

No data available

* SECTION 13: Disposal considerations

* 13.1 Waste treatment methods

Appropriate disposal / Product

Dispose of waste according to applicable legislation.

Appropriate disposal / Package

Non-contaminated packages may be recycled.

Handle contaminated packages in the same way as the substance itself.

* Remark

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 3082	UN 3082	UN 3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)	Environmentally hazardous substance, liquid, n.o.s. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)
14.3 Transport hazard class(es)	9	9	9
14.4 Packing group	III	III	III
14.5 Environmental hazards	ENVIRONMENTALLY HAZARDOUS	ENVIRONMENTALLY HAZARDOUS Marine pollutant	ENVIRONMENTALLY HAZARDOUS
14.6 Special precautions for user	No data available		
14.7 Maritime transport in bulk according to IMO instruments	No data available		

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Land transport (ADR/RID)

UN number or ID number	UN 3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)
Transport hazard class(es)	9
Hazard label(s)	9
Classification code	M6
Packing group	III
Environmental hazards	ENVIRONMENTALLY HAZARDOUS
Limited quantity (LQ)	5 L
Special provisions	274, 335, 375, 601
Tunnel restriction code	-

Sea transport (IMDG)

UN number or ID number	UN 3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)
Transport hazard class(es)	9
Packing group	III
Environmental hazards	ENVIRONMENTALLY HAZARDOUS
Limited quantity (LQ)	5 L
Marine pollutant	Yes.
EmS	F-A, S-F

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number	UN 3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)
Transport hazard class(es)	9
Packing group	III
Environmental hazards	ENVIRONMENTALLY HAZARDOUS

* SECTION 15: Regulatory information

* 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

15.2 Chemical Safety Assessment

No data available

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* SECTION 16: Other information

* Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

Aquatic Chronic 2: Long-term (chronic) aquatic hazard, Category 2

BImSchV: Ordinance for the implementation of the Federal Immission Control Act (DE)

BOD: Biochemical (Biological) Oxygen Demand

BSB: Biochemical (Biological) Oxygen Demand (DE)

CLP: Classification, Labelling and Packaging

CMR: Carcinogenic, Mutagenic, toxic for Reproduction

DGR: Dangerous Goods Regulations (IATA)

EC: European Community

EC50: Effective Concentration 50%

ECHA: European Chemicals Agency

EmS: emergency procedures

ERC: Environmental Release Category

EU: European Union

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization

IUPAC: International Union of Pure and Applied Chemistry

bw: body weight

KOC: Partition coefficient n-octanol/water

KOC: Partition coefficient n-octanol/water

LC50: Lethal (fatal) Concentration 50%

LD50: Lethal (fatal) Dose 50%

NOAEL: No Observed Adverse Effect Level

OC: operational conditions

OECD: Organisation for Economic Cooperation and Development

PBT: persistent and bioaccumulative and toxic

PC: Products category

PROC: Process Category

QSAR: Quantitative Structure-Activity Relationship

REACH: Registration, Evaluation and Authorization of Chemicals

RID: Dangerous goods regulations for transport by rail

Skin Irrit. 2: Skin irritation, Category 2

Skin Sens. 1B: Skin sensitizer, Sub-category 1B

STOT: Specific Target Organ Toxicity

SU: use category

ThOD: Theoretical Oxygen Demand

vPvB: very persistent, very bioaccumulative

WGK: water hazard class

* Key literature references and sources for data

ECHA Reach Dossier

Rigoletto, Federal Environmental Agency of Germany

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Additional information

The product is listed in the following Global Chemical Inventories:

Australia (AIIC)
Canada (DSL)
China (IECSC)
European Union (EINECS) EINECS No.: 245-842-1
Korea (Republic of) (AREC) AREC Serial No.: 2006-3-3589
Mexico (INSQ)
New Zealand (NZIoC)
Philippines (PICCS)
Taiwan (TCSI)
Thailand (TDCA)
United States of America (TSCA)
Vietnam (VNECI)

National and local regulations concerning chemicals shall be observed.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Since the use of this information and the conditions of use of the product are not within the control of ACS International, it is the user's obligation to determine conditions of safe use of the product.

Relevant H- and EUH-phrases (Number and full text)

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Indication of changes

* Data changed compared with the previous version



Ficha de datos de seguridad conforme al
Reglamento (CE) n.º 1907/2006 (REACH)
Fecha de impresión 27.03.2020
Revision 27.03.2020 (E) Versión 3.6
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! SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

1.1. Identificador del producto

Nombre comercial	Indole
	Prod-Nr 50905
Nombre de la sustancia	Indole
EC No	204-420-7
REACH número de registro	01-2120745892-45-****
CAS No	120-72-9

1.2. Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

Uso(s) previsto(s) recomendado(s)
Uso en desarrollos de perfumes y sabores

1.3. Datos del proveedor de la ficha de datos de seguridad

Fabricante / proveedor	A.C.S. International GmbH Im Wesertal 5, D-37671 Hötter - Stahle Teléfono +49 (0)5531 9906142, Fax +49 (0)5531 9906 196 E-Mail regulatory@acsint.com Internet www.acsint.com
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Departamento informante	GIZ-Nord, Göttingen, Germany
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1.4. Teléfono de emergencia

Teléfono de emergencia	Teléfono +49 551 19240
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SECCIÓN 2: Identificación de los peligros

2.1. Clasificación de la sustancia o de la mezcla

Clasificación - (CE) No 1272/2008 [CLP/GHS]

Clases y categorías de peligro	Indicaciones de peligro	Procedimiento de clasificación
--------------------------------	-------------------------	--------------------------------

Acute Tox. 3	H311
Acute Tox. 4	H302
Eye Dam. 1	H318
Skin Sens. 1	H317

Indicaciones de peligro para peligros de salud

H302	Nocivo en caso de ingestión.
H311	Tóxico en contacto con la piel.
H317	Puede provocar una reacción alérgica en la piel.
H318	Provoca lesiones oculares graves.

2.2. Elementos de la etiqueta

Etiquetado - (CE) No 1272/2008 [CLP/GHS]



GHS05



GHS06

Palabra de alarma

Peligro

Indicaciones de peligro para peligros de salud

H302	Nocivo en caso de ingestión.
H311	Tóxico en contacto con la piel.
H317	Puede provocar una reacción alérgica en la piel.
H318	Provoca lesiones oculares graves.

Indicaciones de seguridad

Prevención

P261	Evitar respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.
P280	Llevar guantes/prendas/gafas/máscara de protección.

Reacción

P301 + P312	EN CASO DE INGESTIÓN: Llamar a un CENTRO DE TOXICOLOGIA/médico si la persona se encuentra mal.
P302 + P352	EN CASO DE CONTACTO CON LA PIEL: Lavar con abundante agua.
P305 + P351 + P338	EN CASO DE CONTACTO CON LOS OJOS: Enjuagar con agua cuidadosamente durante varios minutos. Quitar las lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado.

Almacenamiento

P403 + P233	Almacenar en un lugar bien ventilado. Mantener el recipiente cerrado herméticamente.
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2.3. Otros peligros

No existen informaciones.

SECCIÓN 3: Composición/ información sobre los componentes

3.1. Sustancias

CAS No 120-72-9 **Indole**
EC No 204-420-7
REACH número de registro 01-2120745892-45-****

3.2. Mezclas

no puede aplicarse

SECCIÓN 4: Primeros auxilios

4.1. Descripción de los primeros auxilios

Indicaciones generales

Quitarse inmediatamente toda la ropa manchada o empapada.

En caso de inhalación

Llevar el afectado al aire libre y consultar al médico.

En caso de contacto con la piel

Lavar la zona afectada inmediatamente con agua y jabón.

Quitar inmediatamente toda la ropa contaminada, inclusive ropa interior y zapatos.

Consultar inmediatamente al médico.

En caso de contacto con los ojos

Lavar cuidadosamente y a fondo con agua abundante y acudir al médico.

En caso de ingestión

Si la persona afectada está tendida sobre la espalda y vomita, cambiarla de posición, poniéndola de costado, sobre un lado.

No provocar el vómito.

Consultar inmediatamente al médico.

Enjuagar la boca y a continuación, beber abundante agua.

4.2. Principales síntomas y efectos, agudos y retardados

No existen informaciones.

4.3. Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente

No existen informaciones.

SECCIÓN 5: Medidas de lucha contra incendios

5.1. Medios de extinción

Medios de extinción apropiados

Espuma

Agentes extintores secos

Dióxido de carbono

Material extintor inadecuado

Chorro de agua

5.2. Peligros específicos derivados de la sustancia o la mezcla

Monóxido de carbono (CO)

Dióxido de carbono (CO₂)

5.3. Recomendaciones para el personal de lucha contra incendios

Equipo especial de protección en caso de incendio

Utilizar aparato respiratorio autónomo.

No respirar los gases de la explosión y/o combustión.

Otras indicaciones

Refrigerar con agua pulverizada los recipientes en peligro.

SECCIÓN 6: Medidas en caso de vertido accidental

6.1. Precauciones personales, equipo de protección y procedimientos de emergencia

Personal no formado para emergencias

Procurar ventilación suficiente.

Llevar las personas a un sitio seguro.

Llevar ropa de protección personal.

Mantener alejado de fuentes de ignición.

6.2. Precauciones relativas al medio ambiente

Evitar que penetre en el alcantarillado, aguas superficiales o subterráneas.

6.3. Métodos y material de contención y de limpieza

Recoger con material absorbente (p. ej. arena, serrín, absorbente universal).
Eliminar el material recogido de forma reglamentaria.

6.4. Referencia a otras secciones

No existen informaciones.

SECCIÓN 7: Manipulación y almacenamiento

7.1. Precauciones para una manipulación segura

Indicaciones para la manipulación sin peligro

Procurar buena ventilación de los locales; dado el caso, instalar aspiración localizada en el lugar de trabajo.
Deben observarse las precauciones habituales en la manipulación de productos químicos.

Medidas de protección generales

Evitar el contacto con los ojos y la piel.
No respirar los gases/vapores/aerosoles.

Medidas de higiene laboral

No fumar, ni comer o beber durante el trabajo.
Quitarse inmediatamente la ropa protectora empapada.
Lavarse las manos antes de los descansos y al terminar el trabajo.

Indicaciones para la protección contra incendio y explosión

Mantener el producto lejos de fuentes de ignición. No fumar.

7.2. Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades

Indicaciones para el almacenamiento conjunto

No almacenar junto con oxidantes.

Indicaciones adicionales para las condiciones de almacenamiento

Mantener los recipientes herméticamente cerrados.
Proteger de temperaturas elevadas y de los rayos solares directos.
Mantener en lugar fresco y bien ventilado.

7.3. Usos específicos finales

No existen informaciones.

SECCIÓN 8: Controles de exposición/protección individual

8.1. Parámetros de control

Otras indicaciones

no es determinada

8.2. Controles de la exposición

Protección respiratoria

Equipo respiratorio autónomo

Protección de las manos

Guantes resistentes a productos químicos

Protección de los ojos

Gafas protectoras con protección lateral

Otras medidas de protección

Ropa protectora

Limitación y vigilancia de la exposición ambiental
no es determinada

SECCIÓN 9: Propiedades físicas y químicas

9.1. Información sobre propiedades físicas y químicas básicas

Aspecto	Color	Olor
polvo cristalino	incoloro	fecal,floral odor in high dilution

Umbral olfativo
no es determinada

Información importante en relación con la salud, la seguridad y el medio ambiente

	Valor	Temperatura	a	Método	Comentario
valor pH	no es determinada				
Punto de ebullición:	253 - 254 °C				
Punto de fusión:	51 - 53 °C				
Punto de inflamación	> 100 °C			Copa cerrada	
Velocidad de evaporación	no es determinada				
Inflamabilidad (sólido)	no es determinada				
Inflamabilidad (gas)	no es determinada				
Temperatura de ignición	no es determinada				
Temperatura de autoignición	no es determinada				
Límite de explosión inferior	no es determinada				
Límite de explosión superior	no es determinada				
Presión de vapor	no es determinada				
Densidad relativa	no es determinada				
Densidad de vapor	no es determinada				
Solubilidad en agua					El producto no es soluble.
Solubilidad / otros	no es determinada				

	Valor	Temperatura	a	Método	Comentario
Coeficiente de distribución (n-octanol/agua) (log P O/W)	no es determinada				
Temperatura de descomposición	no es determinada				
Viscosidad	no es determinada				
Propiedades comburentes No existen informaciones.					
Propiedades explosivas No existen informaciones.					
9.2. Otra información No existen informaciones.					

SECCIÓN 10: Estabilidad y reactividad

10.1. Reactividad

No existen informaciones.

10.2. Estabilidad química

No existen informaciones.

10.3. Posibilidad de reacciones peligrosas

No existen informaciones.

10.4. Condiciones que deben evitarse

Desprendimiento de calor.

10.5. Materiales incompatibles

Sustancias que deben evitarse

Reacción con oxidantes fuertes.

10.6. Productos de descomposición peligrosos

Monóxido de carbono y dióxido de carbono

Productos de descomposición determinantes del peligro:

Descomposición térmica

Comentario A temperatura ambiente, el producto es estable.

SECCIÓN 11: Información toxicológica

11.1. Información sobre los efectos toxicológicos

Toxicidad aguda/Irritación / Sensibilización

	Valor/Valoración	Especie	Método	Comentario
Toxicidad oral aguda	> 1000 mg/kg	Rata		Nocivo en caso de ingestión.
Toxicidad dérmica aguda	790 mg/kg	Conejo		Tóxico en contacto con la piel.
Irritación cutánea	El producto es ligeramente irritante (no requiere etiqueta por este concepto).	Conejo		
Irritación ocular	Provoca lesiones oculares graves.			
Sensibilización cutánea	Puede provocar una reacción alérgica en la piel.			

SECCIÓN 12: Información ecológica

12.1. Toxicidad

Efectos ecotóxicos

	Valor	Especie	Método	Valoración
Dafnia	CE50 1 mg/l (48 h)	Daphnia maúna		
Algas	CE100 < 10 mg/l (96 h)	Scenedesmus quadricauda		

12.2. Persistencia y degradabilidad

No existen informaciones.

12.3. Potencial de bioacumulación

No existen informaciones.

12.4. Movilidad en el suelo

No existen informaciones.

12.5. Resultados de la valoración PBT y mPmB

No existen informaciones.

12.6. Otros efectos negativos

No existen informaciones.

SECCIÓN 13: Consideraciones relativas a la eliminación

13.1. Métodos para el tratamiento de residuos

Recomendación para el producto

Eliminar, observando las normas locales en vigor.

Recomendación para los envases / embalajes

Envases/embalajes contaminados deben ser vaciados lo mejor posible; después, tras la correspondiente limpieza, pueden ser utilizados de nuevo.

Envases/embalajes que no pueden ser limpiados deben ser eliminados de la misma forma que el producto contenido.

SECCIÓN 14: Información relativa al transporte

	ADR/RID	IMDG	IATA-DGR
14.1. Número ONU	2811	2811	2811
14.2. Designación oficial de transporte de las Naciones Unidas	Poisonous solid, organic, n.o.s.	Toxic solid, organic, n.o.s.	Toxic solid, organic, n.o.s.
14.3. Clase(s) de peligro para el transporte	6.1	6.1	6.1
14.4. Grupo de embalaje	III	III	III
14.5. Peligros para el medio ambiente	No	No	No

14.6. Precauciones particulares para los usuarios

No existen informaciones.

14.7. Transporte a granel con arreglo al anexo II del Convenio Marpol 73/78 y del Código IBC

No existen informaciones.

Transporte por tierra ADR/RID

Hoja de peligro 6.1

SECCIÓN 15: Información reglamentaria

15.1. Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla

Disposiciones nacionales

WGK (peligrosidad para aguas): Clase 1 dato bibliográfico
Normas averías Ninguno/a.

15.2. Evaluación de la seguridad química

No existen informaciones.

SECCIÓN 16: Otra información

Consejos relativos a la formación

Ninguno/a.

Uso aconsejado y limitaciones

Respetar la legislación nacional y local en vigor relativa a estos productos químicos.

Otras indicaciones

Los datos se basan en el estado actual de nuestros conocimientos, aunque no suponen una garantía de que el producto posea determinadas propiedades y no pueden ser la base de una relación legal.



Ficha de datos de seguridad conforme al
Reglamento (CE) n.º 1907/2006 (REACH)
Fecha de impresión 27.03.2020
Revision 27.03.2020 (E) Versión 3.6
Indole
50905

Procedencia de los datos más importantes

Listed in EINECS and TSCA

Ficha de datos de seguridad de acuerdo con el Reglamento (CE) n.º 1907/2006 (REACH)

72901

Rose Ketone beta

Fecha de edición 15.11.2023
Revisión 15.11.2023
Versión 4.0 (es)
reemplaza la versión de 10.03.2021 (3.9)



*** SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa**

1.1 Identificador del producto

Nombre comercial/denominación	Rose Ketone beta
Prod-Nr	72901
N.º CE	245-842-1
Número-REACH	01-2120094433-55-****
n.º CAS	23726-91-2

*** 1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**

*** Categorías de procesos**

PROC1 Producción de productos químicos o refinería en procesos cerrados en los que no hay probabilidades de exposición o procesos en condiciones de contención equivalentes.
PROC2 Producción de productos químicos o refinería en procesos cerrados y continuos con exposición ocasional controlada o procesos cuyas condiciones de contención son equivalentes.
PROC3 Fabricación o formulación en la industria química en procesos por lotes cerrados con exposición ocasional controlada o procesos cuyas condiciones de contención son equivalentes.
PROC4 Producción de productos químicos en los que se puede producir la exposición.
PROC5 Mezclado en procesos por lotes
PROC7 Pulverización industrial
PROC8a Transferencia de sustancias o mezclas (carga y descarga) en instalaciones no especializadas
PROC8b Transferencia de sustancias o mezclas (carga y descarga) en instalaciones especializadas
PROC9 Transferencia de sustancias o mezclas a pequeños contenedores (líneas de llenado especializadas, incluido el pesaje)
PROC10 Aplicación mediante rodillo o brocha
PROC11 Pulverización no industrial
PROC13 Tratamiento de artículos mediante inmersión y vertido
PROC14 Tableteado, compresión, extrusión, peletización, granulación
PROC15 Uso como reactivo de laboratorio

*** Categorías de emisión al medio ambiente [ERC]**

ERC2 Formulación en mezcla
ERC4 Uso de auxiliares tecnológicos no reactivos en emplazamientos industriales (no forman parte de artículos)
ERC8a Amplio uso de auxiliares tecnológicos no reactivos (no forman parte de artículos, interior)
ERC8b Amplio uso de auxiliares tecnológicos reactivos (no forman parte de artículos, interior)
ERC8d Amplio uso de auxiliares tecnológicos no reactivos (no forman parte de artículos, exterior)

*** Categoría del producto [PC]**

PC3 Productos de higienización del aire
PC8 Productos biocidas
PC28 Perfumes, fragancias
PC31 Abrillantadores y ceras
PC35 Productos de lavado y limpieza
PC39 Productos cosméticos y productos de cuidado personal

*** Uso de la sustancia/mezcla**

Productos de higienización del aire
Productos biocidas (por ejemplo, desinfectantes o de control de plagas)
Perfumes, fragancias
Preparados y componentes poliméricos
Productos de lavado y limpieza (incluidos los productos que contienen disolventes)
Productos cosméticos y productos de cuidado personal
Sustancias gustativas
Agente aromatizante y nutriente

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Revisión 15.11.2023
Versión 4.0 (es)
reemplaza la versión de 10.03.2021 (3.9)



1.3 Datos del proveedor de la ficha de datos de seguridad

Proveedor

Aroma Chemical Services International GmbH
Im Wesertal 5
37671 Hörter-Stahle
Germany

Teléfono +49 (0)5531 9906 142
Telefax +49 (0)5531 9906 196
Correo electrónico regulatory@acsint.com
Página web www.acsint.com

1.4 Teléfono de emergencia

GLZ-Nord, Göttingen, Germany +49 551 19240

* SECCIÓN 2: Identificación de los peligros

* 2.1 Clasificación de la sustancia o de la mezcla

Clasificación según el Reglamento (CE) N° 1272/2008 [CLP]	Procedimiento de clasificación
Skin Irrit. 2, H315	Conforme a datos obtenidos de los ensayos.
Skin Sens. 1B, H317	Conforme a datos obtenidos de los ensayos.
Aquatic Chronic 2, H411	Conforme a datos obtenidos de los ensayos.

Indicaciones de peligro para peligros de salud

H315 Provoca irritación cutánea.
H317 Puede provocar una reacción alérgica en la piel.

Indicaciones de peligro para peligro del medio ambiente

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

* 2.2 Elementos de la etiqueta

Etiquetado según el Reglamento (CE) n° 1272/2008 [CLP]

Pictograma de peligro



GHS07



GHS09

Palabra de advertencia

Atención

Indicaciones de peligro

H315 Provoca irritación cutánea.
H317 Puede provocar una reacción alérgica en la piel.
H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

Consejos de prudencia

P264 Lavarse las manos concienzudamente tras la manipulación.
P273 Evitar su liberación al medio ambiente.
P280 Llevar guantes/ropa de protección y equipo de protección para los ojos/la cara.
P362 Quitar las prendas contaminadas.
P302 + P352 EN CASO DE CONTACTO CON LA PIEL: Lavar con abundante agua.
P333 + P313 En caso de irritación o erupción cutánea: Consultar a un médico.

Ficha de datos de seguridad de acuerdo con el Reglamento (CE) n.º 1907/2006 (REACH)

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2.3 Otros peligros

Posibles efectos peligrosos y síntomas para seres humanos

Posibilidad de sensibilización en contacto con la piel.

* SECCIÓN 3: Composición / información sobre los componentes

* 3.1 Sustancias

Nombre de la sustancia	(E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one
N.º CE	245-842-1
Número-REACH	01-2120094433-55-****
n.º CAS	23726-91-2
Peso molecular	192.30 g/mol
Formula molecular	C ₁₃ H ₂₀ O
Puramente	> 94.0 %
sinónimos	IUPAC: 1-(2,6,6-trimethylcyclohex-1-en-1-yl)but-2-en-1-one

Advertencias complementarias

Sum of the isomers

3.2 Mezclas

no aplicable

* SECCIÓN 4: Primeros auxilios

* 4.1 Descripción de los primeros auxilios

* Informaciones generales

Quitar inmediatamente ropa contaminada y mojada.
En todos los casos de duda o si existen síntomas, solicitar asistencia médica.

En caso de inhalación

Llevar el afectado al aire libre y consultar al médico.

* Después de contacto con la piel

En caso de contacto con la piel, lávese inmediata- y abundantemente con agua y jabón.
Quitar inmediatamente ropa contaminada y mojada.
En caso de cutirreacción consultar un médico.

En caso de contacto con los ojos

En caso de contacto con los ojos, aclarar los ojos abiertos con suficiente agua durante bastante tiempo, después consultar inmediatamente un oftalmólogo.

* En caso de ingestión

NO provocar el vómito.
Llamar inmediatamente ayuda médica.
Enjuagar la boca con agua.

4.2 Principales síntomas y efectos, agudos y retardados

No hay datos disponibles

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72901

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reemplaza la versión de	10.03.2021 (3.9)



4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente

No hay datos disponibles

*** SECCIÓN 5: Medidas de lucha contra incendios**

*** 5.1 Medios de extinción**

*** Medios de extinción apropiados**

espuma resistente al alcohol
Extintor de polvo
Dióxido de carbono (CO₂)
Dispersión finísima de agua

Medios de extinción no apropiados

Chorro de agua

5.2 Peligros específicos derivados de la sustancia o la mezcla

Productos de combustión peligrosos

Monóxido de carbono
Dióxido de carbono (CO₂)

5.3 Recomendaciones para el personal de lucha contra incendios

Equipo especial de protección en caso de incendio

En caso de incendio: Utilizar un aparato de respiración autónomo.

Informaciones adicionales

No inhalar gases de explosión y combustión.

Para proteger a personas y para refrigeración de recipientes en la zona de peligro, utilizar chorro de agua a inyección.

*** SECCIÓN 6: Medidas en caso de vertido accidental**

*** 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia**

Para el personal que no forma parte de los servicios de emergencia

Asegurar una ventilación adecuada.
Llevar a las personas fuera del peligro.
Usar equipamiento de protección personal.
Eliminar toda fuente de ignición.

*** Para el personal de emergencia**

Mantener a las personas alejadas y situarse a favor del viento.
Utilizar protección respiratoria apropiada.
Protección individual

6.2 Precauciones relativas al medio ambiente

No dejar verter ni en la canalización ni en desagües.

Ficha de datos de seguridad de acuerdo con el Reglamento (CE) n.º 1907/2006 (REACH)

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6.3 Métodos y material de contención y de limpieza

Para retención

Material adecuado para recoger:
Arena
Serrín
Ligador universal
Eliminar el material recogido de forma reglamentaria.

6.4 Referencia a otras secciones

No hay datos disponibles

* SECCIÓN 7: Manipulación y almacenamiento

7.1 Precauciones para una manipulación segura

Medidas de protección

Si una aspiración local no es posible o es insuficiente, se debe garantizar una buena ventilación del campo de trabajo.
Deben observarse las precauciones habituales en la manipulación de productos químicos.
Conservar alejado de toda llama o fuente de chispas - No fumar.
Evitar:
Contacto con los ojos
Contacto con la piel
No respirar los gases/vapores/aerosoles.

Indicaciones para la higiene industrial general

Cuando se lo use, no comer, beber, fumar o estornudar.
Quitar inmediatamente ropa contaminada y mojada.
Lavar las manos antes de las pausas y al fin del trabajo.

* 7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades

* Requisitos para los lugares de almacenamiento y recipientes

Manténgase el recipiente bien cerrado.

Materias que deben evitarse

No almacenar junto con:
Agente oxidante

* Más datos sobre condiciones de almacenamiento

Proteger de temperaturas elevadas y de los rayos solares directos.
Consérvese el recipiente en lugar fresco y bien ventilado.
Guardar el producto bajo (gas):
Nitrógeno

7.3 Usos específicos finales

No hay datos disponibles

* SECCIÓN 8: Controles de exposición/protección individual

8.1 Parámetros de control

No hay datos disponibles

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* 8.2 Controles de la exposición

* Controles técnicos adecuados

* Medidas técnicas para evitar exposiciones

En general se recomienda el uso de medidas técnicas, como instalaciones cerradas, sistemas de extracción de aire u otras medidas para reducir la exposición de las personas.

* Protección individual

Protección de ojos y cara

Gafas con protección lateral

Protección de la mano

Guantes resistentes a productos químicos

Protección corporal:

Ropa protectora

* Protección respiratoria

Protección respiratoria es necesaria para:
ventilación insuficiente
aspiración insuficiente.

Aparatos respiratorios adecuados:

Aparato respiratorio independiente del ambiente de aire (aparato aislador)

Aparato filtrador (EN 147)

Filtro de aplicación múltiple ABEK

* Controles de exposición medioambiental

* Medidas técnicas para evitar exposiciones

Si es posible, utilizar en sistemas cerrados.

* SECCIÓN 9: Propiedades físicas y químicas

* 9.1 Información sobre propiedades físicas y químicas básicas

Estado físico

Líquido

Color

incoloro o amarillo pálido

* Olor

floral

afrutado

rosa

Tabaco

Datos básicos relevantes de seguridad

	Valor	Método	Fuente, Observación
Umbral olfativo:	no determinado		
Punto de fusión/punto de congelación	Punto de fusión 9 °C	OCDE 102	ECHA REACH Dossier

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	Valor	Método	Fuente, Observación
Punto de ebullición o punto inicial de ebullición e intervalo de ebullición	254 °C Presión 97 kPa	OCDE 103	ECHA REACH Dossier
inflamabilidad	no determinado		
Límite superior e inferior de explosividad	no determinado		
Punto de inflamabilidad	> 100 °C	Reglamento (CE) nº 440/2008, anexo A.9	ECHA REACH Dossier
Temperatura de auto-inflamación	aprox. 265 °C	Reglamento (CE) nº 440/2008, anexo A.15	ECHA REACH Dossier Conclusión analógica n.º CAS=24720-09-0 Rose Ketone alpha
Temperatura de descomposición			A temperatura ambiente, el producto es estable.
pH	no determinado		
Viscosidad	no determinado		
Solubilidad(es)	Solubilidad en agua aprox. 194 mg/L (20°C)	OCDE 105	ECHA REACH Dossier pH=5,8
Coeficiente de reparto n-octanol/agua (valor logarítmico)	3.68 (22.5°C)	OCDE 117	ECHA REACH Dossier
Presión de vapor	2.6 Pa (25°C)	OCDE 104	ECHA REACH Dossier
Densidad y/o densidad relativa	Densidad relativa 0.934- 0.942 g/cm³ (20-20°C)	OCDE 109	ACS International Specification
Densidad de vapor relativa	no determinado		
características de partículas			no aplicable

9.2 Información adicional

No hay datos disponibles

SECCIÓN 10: Estabilidad y reactividad

10.1 Reactividad

No hay datos disponibles

10.2 Estabilidad química

No hay datos disponibles

10.3 Posibilidad de reacciones peligrosas

No hay datos disponibles

10.4 Condiciones que deben evitarse

Desprendimiento de calor.

10.5 Materiales incompatibles

Agente oxidante, fuerte

10.6 Productos de descomposición peligrosos

Monóxido de carbono
Dióxido de carbono

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* SECCIÓN 11: Información toxicológica

11.1 Información sobre las clases de peligro definidas en el Reglamento (CE) n.º 1272/2008

* Toxicidad aguda

* Datos de animales

	Dosis efectiva	Método, Evaluación	Fuente, Observación
Toxicidad oral aguda	LD50: > 2000 mg/kg Especie Rata	OCDE 401	ECHA REACH Dossier
Toxicidad dermal aguda	no determinado		
Toxicidad inhalativa aguda	no determinado		

* Estimación/clasificación

A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

* Corrosión o irritación cutáneas

* Prueba de la piel in-vitro

Resultado	Método
irritante. Source: ECHA REACH Dossier	OCDE 439

* Estimación/clasificación

Irrita la piel.

* Lesiones oculares graves o irritación ocular

Datos de animales

Resultado / Evaluación	Método	Fuente, Observación
Eritema de la conjuntiva. Conjuntivitis química (Chemosis). reversible. Especie Conejo		ECHA REACH Dossier

* Otra información

reversible.

* Estimación/clasificación

A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

Sensibilización respiratoria

no determinado

* Sensibilización cutánea

Datos de animales

Resultado / Evaluación	Dosis / Concentración	Método	Fuente, Observación
Puede provocar una reacción alérgica en la piel.	Especie Ratón	OCDE 429	ECHA REACH Dossier

* Estimación/clasificación

Otro alérgeno de la piel (Subcategoría 1B)

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*** Mutagenicidad en células germinales**

	Valor	Método	Resultado / Evaluación	Observación
Mutagenicidad in vitro/genotoxicidad	Mutagenicidad Especie Salmonella typhimurium	OCDE 471 (test ames)	negativo.	ECHA REACH Dossier

*** Estimación/clasificación**

A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

Carcinogenicidad

no determinado

Toxicidad para la reproducción

no determinado

*** Valoración sentificada de las características de CMR**

A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

Toxicidad específica en determinados órganos (STOT) – exposición única

no determinado

Toxicidad específica en determinados órganos (STOT) – exposición repetida

no determinado

Peligro de aspiración

no determinado

11.2 Información relativa a otros peligros

No hay datos disponibles

*** SECCIÓN 12: Información ecológica**

*** 12.1 Toxicidad**

*** Toxicidad acuática**

	Dosis efectiva	Método, Evaluación	Fuente, Observación
Toxicidad de peces aguda (a corto plazo)	no determinado		
Toxicidad de peces crónica (a largo plazo)	no determinado		
Toxicidad aguda (breve) para crustáceos	EC50 9.5 mg/L Especie Daphnia sp. Demora de la prueba 48 h	OCDE 202	ECHA REACH Dossier (Q)SAR
Toxicidad crónica (a largo plazo) para invertebrados acuáticos	no determinado		
Toxicidad aguda (breve) para algas y cianobacterias	EC50 8.8 mg/L Demora de la prueba 72 h	OCDE 201	ECHA REACH Dossier (Q)SAR
Toxicidad crónica (continúa) para algas y cianobacterias	no determinado		

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	Dosis efectiva	Método, Evaluación	Fuente, Observación
Toxicidad para otras plantas/organismos acuáticos	no determinado		
Toxicidad para microorganismos	no determinado		

* **Estimación/clasificación**

Puede ser nocivo para los organismos acuáticos, con efectos nocivos duraderos.

* **12.2 Persistencia y degradabilidad**

	Valor	Método	Fuente, Observación
Biodegradable	Lodo activado	OCDE 301C/ ISO 9408/ EEC 92/69/V, C.4-F	BOD (% del ThOD). No fácilmente biodegradable (según criterios de OCDE)
	Demora de la prueba 28 d		

* **Estimación/clasificación**

No fácilmente biodegradable (según criterios de OCDE)

12.3 Potencial de bioacumulación

No hay datos disponibles

12.4 Movilidad en el suelo

No hay datos disponibles

12.5 Resultados de la valoración PBT y mPmB

No hay datos disponibles

12.6 Propiedades de alteración endocrina

No hay datos disponibles

12.7 Otros efectos negativos

No hay datos disponibles

* **SECCIÓN 13: Consideraciones relativas a la eliminación**

* **13.1 Métodos para el tratamiento de residuos**

Eliminación apropiada / Producto

Eliminar los residuos de acuerdo con la legislación aplicable.

Eliminación apropiada / Embalaje

Los embalajes no contaminados pueden ser reciclados.

Los embalajes contaminados deben de ser tratados como la sustancia.

* **Observación**

La coordinación de los números de clave de los residuos/marcas de residuos según CER hay que efectuarla espeditivamente de ramo y proceso.

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SECCIÓN 14: Información relativa al transporte

	Transporte por vía terrestre (ADR/RID)	Transporte marítimo (IMDG)	Transporte aéreo (ICAO-TI / IATA-DGR)
14.1 Número ONU o número ID	ONU 3082	ONU 3082	ONU 3082
14.2 Designación oficial de transporte de las Naciones Unidas	SUSTANCIA LÍQUIDA POTENCIALMENTE PELIGROSA PARA EL MEDIO AMBIENTE, N.E.P. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)	Environmentally hazardous substance, liquid, n.o.s. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)
14.3 Clase(s) de peligro para el transporte	9	9	9
14.4 Grupo de embalaje	III	III	III
14.5 Peligros para el medio ambiente	PELIGROSO PARA EL MEDIO AMBIENTE	PELIGROSO PARA EL MEDIO AMBIENTE Contaminante marino	PELIGROSO PARA EL MEDIO AMBIENTE

14.6 Precauciones particulares para los usuarios

No hay datos disponibles

14.7 Transporte marítimo a granel con arreglo a los instrumentos de la OMI

No hay datos disponibles

Transporte por vía terrestre (ADR/RID)

Número ONU o número ID	ONU 3082
Designación oficial de transporte de las Naciones Unidas	SUSTANCIA LÍQUIDA POTENCIALMENTE PELIGROSA PARA EL MEDIO AMBIENTE, N.E.P. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)
Clase(s) de peligro para el transporte	9
Hoja de peligro	9
Código de clasificación	M6
Grupo de embalaje	III
Peligros para el medio ambiente	PELIGROSO PARA EL MEDIO AMBIENTE
Cantidad limitada (LQ)	5 L
Disposiciones especiales	274, 335, 375, 601
Clave de limitación de túnel	-

Transporte marítimo (IMDG)

Número ONU o número ID	ONU 3082
Designación oficial de transporte de las Naciones Unidas	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)
Clase(s) de peligro para el transporte	9
Grupo de embalaje	III
Peligros para el medio ambiente	PELIGROSO PARA EL MEDIO AMBIENTE
Cantidad limitada (LQ)	5 L
Contaminante marino	Sí.
EmS	F-A, S-F

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Transporte aéreo (ICAO-TI / IATA-DGR)

Número ONU o número ID	ONU 3082
Designación oficial de transporte de las Naciones Unidas	Environmentally hazardous substance, liquid, n.o.s. ((E)-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-buten-1-one)
Clase(s) de peligro para el transporte	9
Grupo de embalaje	III
Peligros para el medio ambiente	PELIGROSO PARA EL MEDIO AMBIENTE

*** SECCIÓN 15: Información reglamentaria**

*** 15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**

No hay datos disponibles

15.2 Evaluación de la seguridad química

No hay datos disponibles

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* SECCIÓN 16: Otra información

* Abreviaciones y acrónimos

Para siglas y abreviaturas ver ECHA: Orientación sobre los requisitos de información y de valoración de la seguridad química, capítulo R.20 (registro de terminos y abreviaturas).

ADN: Acuerdo europeo relativo al transporte internacional de mercancías peligrosas por vías de navegación interior

ADR: Acuerdo europeo relativo al transporte internacional de mercancías peligrosas por carretera

Aquatic Chronic 2: Riesgo (crónico) a largo plazo para las aguas, Categoría 2

BImSchV: Ordenanza para la implementación de la Ley de Control de Inmisión Federal (DE)

BOD: Demanda bioquímica de oxígeno (EN)

BSB: Demanda bioquímica de oxígeno (DE)

CLP: Clasificación, etiquetado y envasado

CMR: Carcinógeno, mutágeno o tóxico para la reproducción

DGR: Reglamentaciones de Productos Peligrosos (IATA)

EC: Comunidad Europea

EC50: concentración efectivo 50%

ECHA: Agencia Europea de Sustancias y Mezclas Químicas

EmS: planes de emergencia

ERC: categoría de emisiones al medio ambiente

EU: Unión Europea

GHS: Sistema Globalmente Armonizado de clasificación y etiquetado de productos químicos

IATA: International Air Transport Association

ICAO: Organización de Aviación Civil Internacional

IMDG: Productos Marítimos Peligrosos Internacionales

IMO: Organización Marítima Internacional

IUPAC: International Union of Pure and Applied Chemistry

pc: peso corporal

KOC: Coeficiente de reparto n-octanol/agua (EN)

KOC: Coeficiente de reparto n-octanol/agua (EN)

LC50: Concentración letal media

LD50: Dosis letal 50%

NOAEL: nivel sin efecto adverso observado

OC: condiciones de funcionamiento

OECD: Organización para la Cooperación y el Desarrollo Económicos

PBT: persistente, bioacumulable y tóxico

PC: Categoría de productos

PROC: categoría de proceso

QSAR: Relación cuantitativa entre estructura y actividad

REACH: Registro, evaluación, autorización y restricción de las sustancias y preparados químicos

RID: Reglamento relativo al transporte internacional de mercancías peligrosas por ferrocarril

Skin Irrit. 2: Irritación cutánea, Categoría 2

Skin Sens. 1B: Sensibilizante cutáneo, Subcategoría 1B

STOT: Toxicidad específica en determinados órganos

SU: categoría de uso

ThOD: Demanda teórica de oxígeno

vPvB: muy persistentes y muy bioacumulativas

WGK: clase de peligro de agua

* Bibliografías y fuente de datos importantes

ECHA Reach Dossier

Rigoletto, Federal Environmental Agency of Germany

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Advertencias complementarias

The product is listed in the following Global Chemical Inventories:

Australia (AIIC)
Canada (DSL)
China (IECSC)
European Union (EINECS) EINECS No.: 245-842-1
Korea (Republic of) (AREC) AREC Serial No.: 2006-3-3589
Mexico (INSQ)
New Zealand (NZIoC)
Philippines (PICCS)
Taiwan (TCSI)
Thailand (TDCA)
United States of America (TSCA)
Vietnam (VNECI)

Respetar la legislación nacional y local en vigor relativa a estos productos químicos.

La información en ésta hoja de datos de seguridad corresponden al leal saber de nuestros conocimiento el día de impresión. Las informaciones deben de ser puntos de apoyo para un manejo seguro de productos mencionados en esta hoja de seguridad para el almacenamiento, elaboración, transporte y eliminación. Las indicaciones no se pueden traspasar a otros productos. Mientras el producto sea mezclado o elaborado con otros materiales, las indicaciones de esta hoja de seguridad no se pueden traspasar así al agente nuevo. Dado que el uso de esta información y las condiciones de uso del producto no están bajo el control de ACS Internacional, es obligación del usuario determinar las condiciones de uso seguro del producto.

Texto de las frases H- y EUH (Número y texto)

H315 Provoca irritación cutánea.
H317 Puede provocar una reacción alérgica en la piel.
H412 Nocivo para los organismos acuáticos, con efectos nocivos duraderos.

Indicación de modificaciones

* Datos frente la versión anterior modificados

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

1.1. Identificador del producto

Nombre comercial	Cinnamic Alcohol
	Prod-Nr 75931
Nombre de la sustancia	Cinnamyl alcohol
EC No	203-212-3
REACH número de registro	01-2119934496-29-****
CAS No	104-54-1

1.2. Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

Uso(s) previsto(s) recomendado(s)

Uso en desarrollos de perfumes

1.3. Datos del proveedor de la ficha de datos de seguridad

Fabricante / proveedor	A.C.S. International GmbH Im Wesertal 5, D-37671 Hötter - Stahle Teléfono +49 (0)5531 9906142, Fax +49 (0)5531 9906 196 E-Mail regulatory@acsint.com Internet www.acsint.com
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Departamento informante	GIZ-Nord, Göttingen, Germany
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1.4. Teléfono de emergencia

Teléfono de emergencia	Teléfono +49 551 19240
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SECCIÓN 2: Identificación de los peligros

2.1. Clasificación de la sustancia o de la mezcla

Clasificación - (CE) No 1272/2008 [CLP/GHS]

Clases y categorías de peligro	Indicaciones de peligro	Procedimiento de clasificación
Acute Tox. 4	H302	
Skin Sens. 1	H317	
Aquatic Chronic 2	H411	

Indicaciones de peligro para peligros de salud

H302	Nocivo en caso de ingestión.
H317	Puede provocar una reacción alérgica en la piel.

Indicaciones de peligro para peligro del medio ambiente

H411	Tóxico para los organismos acuáticos, con efectos nocivos duraderos.
------	--

2.2. Elementos de la etiqueta

Etiquetado - (CE) No 1272/2008 [CLP/GHS]



GHS07



GHS09

Palabra de alarma

Atención

Indicaciones de peligro para peligros de salud

H302 Nocivo en caso de ingestión.
H317 Puede provocar una reacción alérgica en la piel.

Indicaciones de peligro para peligro del medio ambiente

H411 Tóxico para los organismos acuáticos, con efectos nocivos duraderos.

Indicaciones de seguridad

Prevención

P261 Evitar respirar el polvo/el humo/el gas/la niebla/los vapores/el aerosol.
P264 Lavarse manos concienzudamente tras la manipulación.
P270 No comer, beber ni fumar durante su utilización.
P272 Las prendas de trabajo contaminadas no podrán sacarse del lugar de trabajo.
P273 Evitar su liberación al medio ambiente.
P280 Llevar guantes/prendas/gafas/máscara de protección.

Reacción

P301 + P312 EN CASO DE INGESTIÓN: Llamar a un CENTRO DE TOXICOLOGIA/médico si la persona se encuentra mal.
P302 + P352 EN CASO DE CONTACTO CON LA PIEL: Lavar con abundante agua.
P321 Se necesita un tratamiento específico (ver ... en esta etiqueta).
P330 Enjuagarse la boca.
P333 + P313 En caso de irritación o erupción cutánea: Consultar a un médico.
P362 + P364 Quitar las prendas contaminadas y lavarlas antes de volver a usarlas.
P363 Lavar las prendas contaminadas antes de volver a usarlas.
P391 Recoger el vertido.

Eliminación

P501 Dispose of contents/container to local regulations .

2.3. Otros peligros

No existen informaciones.

SECCIÓN 3: Composición/ información sobre los componentes

3.1. Sustancias

CAS No 104-54-1 Cinnamyl alcohol
EC No 203-212-3
REACH número de registro 01-2119934496-29-****

3.2. Mezclas

no puede aplicarse

SECCIÓN 4: Primeros auxilios

4.1. Descripción de los primeros auxilios

Indicaciones generales

Quitarse inmediatamente toda la ropa manchada o empapada.

En caso de inhalación

Llevar el afectado al aire libre y consultar al médico.

En caso de contacto con la piel

Lavar la zona afectada inmediatamente con agua y jabón.

Quitar inmediatamente toda la ropa contaminada, inclusive ropa interior y zapatos.

Consultar inmediatamente al médico.

En caso de contacto con los ojos

Lavar cuidadosamente y a fondo con agua abundante y acudir al médico.

En caso de ingestión

No provocar el vómito.

Consultar inmediatamente al médico.

Enjuagar la boca cuidadosamente y a fondo con agua.

4.2. Principales síntomas y efectos, agudos y retardados

No existen informaciones.

4.3. Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente

No existen informaciones.

SECCIÓN 5: Medidas de lucha contra incendios

5.1. Medios de extinción

Medios de extinción apropiados

Espuma

Agentes extintores secos

Dióxido de carbono

Material extintor inadecuado

Chorro de agua

5.2. Peligros específicos derivados de la sustancia o la mezcla

Monóxido de carbono (CO)

Dióxido de carbono (CO₂)

5.3. Recomendaciones para el personal de lucha contra incendios

Equipo especial de protección en caso de incendio

Utilizar aparato respiratorio autónomo.

No respirar los gases de la explosión y/o combustión.

Otras indicaciones

Refrigerar con agua pulverizada los recipientes en peligro.

SECCIÓN 6: Medidas en caso de vertido accidental

6.1. Precauciones personales, equipo de protección y procedimientos de emergencia

Personal no formado para emergencias

Procurar ventilación suficiente.

Llevar las personas a un sitio seguro.

Llevar ropa de protección personal.

Mantener alejado de fuentes de ignición.

6.2. Precauciones relativas al medio ambiente

Evitar que penetre en el alcantarillado, aguas superficiales o subterráneas.

6.3. Métodos y material de contención y de limpieza

Recoger con material absorbente (p. ej. arena, serrín, absorbente universal).
Eliminar el material recogido de forma reglamentaria.

6.4. Referencia a otras secciones

No existen informaciones.

SECCIÓN 7: Manipulación y almacenamiento

7.1. Precauciones para una manipulación segura

Indicaciones para la manipulación sin peligro

Procurar buena ventilación de los locales; dado el caso, instalar aspiración localizada en el lugar de trabajo.
Deben observarse las precauciones habituales en la manipulación de productos químicos.

Medidas de protección generales

Evitar el contacto con los ojos y la piel.
No respirar los gases/vapores/aerosoles.

Medidas de higiene laboral

No fumar, ni comer o beber durante el trabajo.
Quitarse inmediatamente la ropa protectora empapada.
Lavarse las manos antes de los descansos y al terminar el trabajo.

Indicaciones para la protección contra incendio y explosión

Mantener el producto lejos de fuentes de ignición. No fumar.

7.2. Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades

Indicaciones para el almacenamiento conjunto

No almacenar junto con oxidantes.

Indicaciones adicionales para las condiciones de almacenamiento

Mantener los recipientes herméticamente cerrados.
Proteger de temperaturas elevadas y de los rayos solares directos.
Mantener en lugar fresco y bien ventilado.

7.3. Usos específicos finales

No existen informaciones.

SECCIÓN 8: Controles de exposición/protección individual

8.1. Parámetros de control

Otras indicaciones

no es determinada

8.2. Controles de la exposición

Protección respiratoria

Equipo respiratorio autónomo

Protección de las manos

Guantes resistentes a productos químicos

Protección de los ojos

Gafas protectoras con protección lateral

Otras medidas de protección

Traje protector

Limitación y vigilancia de la exposición ambiental
no es determinada

SECCIÓN 9: Propiedades físicas y químicas

9.1. Información sobre propiedades físicas y químicas básicas

Aspecto	Color	Olor
masa fundida	amarillo claro	hyacinth-like

Umbral olfativo
no es determinada

Información importante en relación con la salud, la seguridad y el medio ambiente

	Valor	Temperatura	a	Método	Comentario
valor pH	no es determinada				
Punto de ebullición:	250 °C				
Punto de fusión:	33 °C				
Punto de inflamación	> 100 °C			Copa cerrada	
Velocidad de evaporación	no es determinada				
Inflamabilidad (sólido)	no es determinada				
Inflamabilidad (gas)	no es determinada				
Temperatura de ignición	no es determinada				
Temperatura de autoignición	no es determinada				
Límite de explosión inferior	no es determinada				
Límite de explosión superior	no es determinada				
Presión de vapor	no es determinada				
Densidad relativa					no puede aplicarse
Densidad de vapor	no es determinada				
Solubilidad en agua					El producto no es soluble.
Solubilidad / otros	no es determinada				

	Valor	Temperatura	a	Método	Comentario
Coeficiente de distribución (n-octanol/agua) (log P O/W)	no es determinada				
Temperatura de descomposición	no es determinada				
Viscosidad	no es determinada				
Propiedades comburentes					
No existen informaciones.					
Propiedades explosivas					
No existen informaciones.					
9.2. Otra información					
No existen informaciones.					

SECCIÓN 10: Estabilidad y reactividad

10.1. Reactividad

No existen informaciones.

10.2. Estabilidad química

No existen informaciones.

10.3. Posibilidad de reacciones peligrosas

No existen informaciones.

10.4. Condiciones que deben evitarse

Desprendimiento de calor.

10.5. Materiales incompatibles

Sustancias que deben evitarse

Reacción con oxidantes fuertes.

10.6. Productos de descomposición peligrosos

Monóxido de carbono y dióxido de carbono

Descomposición térmica

Comentario A temperatura ambiente, el producto es estable.

SECCIÓN 11: Información toxicológica

11.1. Información sobre los efectos toxicológicos

Toxicidad aguda/Irritación / Sensibilización

Valor/Valoración	Especie	Método	Comentario
------------------	---------	--------	------------

	Valor/Valoración	Especie	Método	Comentario
Toxicidad oral aguda	2000 mg/kg	Rata		Nocivo en caso de ingestión.
Toxicidad dérmica aguda	> 2000 mg/kg	Conejo		
Sensibilización cutánea	Puede provocar una reacción alérgica en la piel.			

SECCIÓN 12: Información ecológica

12.1. Toxicidad

Efectos ecotóxicos

	Valor	Especie	Método	Valoración
Pece	CL50 9 mg/l (96 h)		OCDE 203	
Dafnia	CE50 7,7 mg/l (48 h)	Daphnia maúna	OCDE 202	

12.2. Persistencia y degradabilidad

No existen informaciones.

12.3. Potencial de bioacumulación

No existen informaciones.

12.4. Movilidad en el suelo

No existen informaciones.

12.5. Resultados de la valoración PBT y mPmB

No existen informaciones.

12.6. Otros efectos negativos

No existen informaciones.

SECCIÓN 13: Consideraciones relativas a la eliminación

13.1. Métodos para el tratamiento de residuos

Recomendación para el producto

Eliminar, observando las normas locales en vigor.

Recomendación para los envases / embalajes

Envases/embalajes contaminados deben ser vaciados lo mejor posible; después, tras la correspondiente limpieza, pueden ser utilizados de nuevo.

Envases/embalajes que no pueden ser limpiados deben ser eliminados de la misma forma que el producto contenido.

SECCIÓN 14: Información relativa al transporte

	ADR/RID	IMDG	IATA-DGR
14.1. Número ONU	3077	3077	3077
14.2. Designación oficial de transporte de las Naciones Unidas	Environmentally hazardous substances, solid, n.o.s.	Environmentally hazardous substances, solid, n.o.s.	Environmentally hazardous substances, solid, n.o.s.
14.3. Clase(s) de peligro para el transporte	9	9	9
14.4. Grupo de embalaje	III	III	III
14.5. Peligros para el medio ambiente	Sí	Sí	Sí

14.6. Precauciones particulares para los usuarios

No existen informaciones.

14.7. Transporte a granel con arreglo al anexo II del Convenio Marpol 73/78 y del Código IBC

No existen informaciones.

Transporte por tierra ADR/RID

Hoja de peligro 9

Transporte por mar IMDG

MARINE POLLUTANT

Otras indicaciones sobre el transporte

No es mercancía peligrosa, según las Disposiciones sobre transportes - ADR/RID, IMDG, ICAO/IATA-DGR.

SECCIÓN 15: Información reglamentaria

15.1. Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla

Disposiciones nacionales

WGK (peligrosidad para aguas): Clase 2 dato bibliográfico

Normas averías Ninguno/a.

15.2. Evaluación de la seguridad química

No existen informaciones.



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SECCIÓN 16: Otra información

Consejos relativos a la formación

Ninguno/a.

Uso aconsejado y limitaciones

Respetar la legislación nacional y local en vigor relativa a estos productos químicos.

Otras indicaciones

Los datos se basan en el estado actual de nuestros conocimientos, aunque no suponen una garantía de que el producto posea determinadas propiedades y no pueden ser la base de una relación legal.

Procedencia de los datos más importantes

Listed in EINECS and TSCA

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Name of product	Dihydroionon beta Prod-Nr 10931
Name of substance	4-(2,6,6-trimethyl-1-cyclohexen-1-yl)butan-2-one
EC No	241-318-1
REACH registration number	01-2120229990-52-****
CAS No	17283-81-7

1.2. Relevant identified uses of the substance or mixture and uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor	A.C.S. International GmbH Im Wesertal 5, D-37671 Hötter - Stahle Phone +49 (0)5531 9906142, Fax +49 (0)5531 9906 196 E-Mail regulatory@acsint.com Internet www.acsint.com
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Advice GIZ-Nord, Göttingen, Germany

1.4. Emergency telephone number

Emergency advice
Phone +49 551 19240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Aquatic Chronic 2	H411	

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]



GHS09

Hazard statements for environmental hazards

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

P273 Avoid release to the environment.



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Response

P391 Collect spillage.

2.3. Other hazards

No information available.

! SECTION 3: Composition/ information on ingredients**3.1. Substances**

CAS No 17283-81-7

4-(2,6,6-trimethyl-1-cyclohexen-1-yl)butan-2-one

EC No 241-318-1

REACH registration number 01-2120229990-52-****

3.2. Mixtures

not applicable

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.

In case of inhalation

In case of inhalation remove the casualty into fresh air and seek medical advice.

In case of skin contact

In case of contact with skin wash off immediately with soap and water.

Remove contaminated clothing immediately, even underwear and shoes.

Seek medical advice immediately.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Do not induce vomiting.

Seek medical advice immediately.

Rinse out mouth thoroughly with water.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Foam

Dry fire-extinguishing substance

Carbon dioxide

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Carbon monoxide (CO)
Carbon dioxide (CO₂)

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

Use breathing apparatus with independent air supply.
Do not inhale explosion and/or combustion gases.

Additional information

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Ensure adequate ventilation.
Remove persons to safety.
Use personal protective clothing.
Keep away sources of ignition.

6.2. Environmental precautions

Collect contaminated water / firefighting water separately.

6.3. Methods and material for containment and cleaning up

Take up residues with absorbent material (e.g. sand, sawdust, general-purpose binder).
After taking up the material dispose according to regulation.

6.4. Reference to other sections

No information available.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.
Take the usual precautions when handling with chemicals.

General protective measures

Avoid contact with eyes and skin
Do not inhale gases/vapours/aerosols.

Hygiene measures

At work do not eat, drink and smoke.
Remove soaked clothing immediately.
Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking

7.2. Conditions for safe storage, including any incompatibilities

Advice on storage compatibility

Do not store together with oxidizing agents.

Further information on storage conditions

Keep container tightly closed.

Storage: cool and dry

Protect from heat and direct solar radiation.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No information available.

8.2. Exposure controls

Respiratory protection

Environment-independent breathing apparatus.

Hand protection

chemical-resistant gloves

Eye protection

safety goggles with side protection

Other protection measures

protective clothing

Limitation and surveillance of the environment

not determined

! SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

colorless to pale yellow

Odour

floral orris-like woody green

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not determined				
Acid number	<= 1 mgKOH/g				
Boiling temperature / boiling range	not determined				
Melting point / Freezing point	not determined				

	Value	Temperature	at	Method	Remark
Flash point	> 100 °C			closed cup	
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	0,926 - 0,931 g/cm ³	20 °C			
Vapour density	not determined				
Solubility in water					insoluble
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				
Oxidising properties No information available.					
Explosive properties No information available.					
9.2. Other information No information available.					

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

No information available.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

Evolution of heat.

10.5. Incompatible materials**Substances to avoid**

Reactions with acids and strong oxidising agents.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

Thermal decomposition

Remark Stable at ambient temperature.

! SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity/Irritation/Sensitization**

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 2000 mg/kg	rat		

! SECTION 12: Ecological information**12.1. Toxicity****Ecotoxicological effects**

	Value	Species	Method	Validation
Daphnia	EC50 5,72 mg/l (48 h)		OECD 202	
Algae	EC50 3,38 - 10 mg/l (72 h)		OECD 201	

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability				readily degradable

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recommendations for the product

There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

! SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	3082	3082	3082
14.2. UN proper shipping name	Environmentally hazardous substances, liquid, n.o.s	Environmentally hazardous substances, liquid, n.o.s	Environmentally hazardous substances, liquid, n.o.s
14.3. Transport hazard class(es)	9	9	9
14.4. Packing group	III	III	III
14.5. Environmental hazards	Yes	Yes	Yes

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Land and inland navigation transport ADR/RID

Hazard label(s) 9

Marine transport IMDG

MARINE POLLUTANT

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture



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National regulations**Other regulations, restrictions and prohibition regulations**

no

Water hazard class 2 value from literature**15.2. Chemical Safety Assessment**

No information available.

SECTION 16: Other information**Training advice**

no

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 7.7

Sources of key data used

Listed in EINECS and TSCA

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reemplaza la versión de 15.11.2021 (7.5)



*** SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa**

1.1 Identificador del producto

Nombre comercial/denominación	Megasantol
Prod-Nr	10930
Nombre de la sustancia	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol
Número de identificación - UE	603-150-00-0
N.º CE	411-580-3
Número-REACH	01-0000000316-81-****
n.º CAS	107898-54-4

*** 1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**

- * Uso de la sustancia/mezcla**
 Productos de higienización del aire
 Productos biocidas (por ejemplo, desinfectantes o de control de plagas)
 Productos cosméticos y productos de cuidado personal
 Perfumes, fragancias
 Preparados y componentes poliméricos
 Productos de lavado y limpieza (incluidos los productos que contienen disolventes)

1.3 Datos del proveedor de la ficha de datos de seguridad

Proveedor
 Aroma Chemical Services International GmbH
 Im Wesertal 5
 37671 Hörter-Stahle
 Germany

 Teléfono +49 (0)5531 9906 142
 Telefax +49 (0)5531 9906 196
 Correo electrónico regulatory@acsint.com
 Página web www.acsint.com

1.4 Teléfono de emergencia

GIZ-Nord, Göttingen, Germany +49 551 19240

*** SECCIÓN 2: Identificación de los peligros**

*** 2.1 Clasificación de la sustancia o de la mezcla**

Clasificación según el Reglamento (CE) N° 1272/2008 [CLP]	Procedimiento de clasificación
Skin Irrit. 2, H315	Conforme a datos obtenidos de los ensayos.
Aquatic Acute 1, H400	Conforme a datos obtenidos de los ensayos.
Aquatic Chronic 1, H410	Conforme a datos obtenidos de los ensayos.

Indicaciones de peligro para peligros de salud

H315 Provoca irritación cutánea.

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Indicaciones de peligro para peligro del medio ambiente

H400 Muy tóxico para los organismos acuáticos.

H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.

*** 2.2 Elementos de la etiqueta**

Etiquetado según el Reglamento (CE) n° 1272/2008 [CLP]

Pictograma de peligro



GHS07



GHS09

Palabra de advertencia

Atención

Indicaciones de peligro

H315 Provoca irritación cutánea.

H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.

Consejos de prudencia

P264 Lavarse las manos concienzudamente tras la manipulación.

P273 Evitar su liberación al medio ambiente.

P280 Llevar guantes/prendas y gafas/máscara de protección.

P391 Recoger el vertido.

P302 + P352 EN CASO DE CONTACTO CON LA PIEL: Lavar con abundante agua.

P332 + P313 En caso de irritación cutánea: Consultar a un médico.

P501 Elimine el contenido / recipiente en un lugar de eliminación de residuos aprobado de acuerdo con las regulaciones locales.

2.3 Otros peligros

Resultados de la valoración PBT y mPmB

Esta sustancia no cumple con los criterios de PBT /vPvB de las disposiciones REACH, anexo XIII.

*** SECCIÓN 3: Composición / información sobre los componentes**

*** 3.1 Sustancias**

Nombre de la sustancia	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol
Número de identificación - UE	603-150-00-0
N.º CE	411-580-3
Número-REACH	01-0000000316-81-****
n.º CAS	107898-54-4
Factor M	M=1 (Aquatic Acute 1) M=1 (Aquatic Chronic 1)
Peso molecular	222.37 g/mol
Formula molecular	C ₁₅ H ₂₆ O
Puramente	> 95.0 %

3.2 Mezclas

no aplicable

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SECCIÓN 4: Primeros auxilios

4.1 Descripción de los primeros auxilios

Informaciones generales

Quitar inmediatamente ropa contaminada y mojada.

En caso de inhalación

Llevar el afectado al aire libre y consultar al médico.

Después de contacto con la piel

En caso de contacto con la piel, lávese inmediata- y abundantemente con agua y jabón.
Quitar inmediatamente ropa contaminada y mojada.
Llamar inmediatamente ayuda médica.

En caso de contacto con los ojos

En caso de contacto con los ojos, aclarar los ojos abiertos con suficiente agua durante bastante tiempo, después consultar inmediatamente un oftalmólogo.

En caso de ingestión

Si la persona afectada está tendida sobre la espalda y vomita, cambiarla de posición, poniéndola de costado, sobre un lado.
NO provocar el vómito.
Llamar inmediatamente ayuda médica.
Enjuagar la boca con agua.

4.2 Principales síntomas y efectos, agudos y retardados

No hay datos disponibles

4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente

No hay datos disponibles

SECCIÓN 5: Medidas de lucha contra incendios

5.1 Medios de extinción

Medios de extinción apropiados

Espuma
Extintor de polvo
Dióxido de carbono (CO2)

Medios de extinción no apropiados

Chorro de agua

5.2 Peligros específicos derivados de la sustancia o la mezcla

Productos de combustión peligrosos

Monóxido de carbono
Dióxido de carbono (CO2)

5.3 Recomendaciones para el personal de lucha contra incendios

Equipo especial de protección en caso de incendio

En caso de incendio: Utilizar un aparato de respiración autónomo.

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Informaciones adicionales

No inhalar gases de explosión y combustión.
Para proteger a personas y para refrigeración de recipientes en la zona de peligro, utilizar chorro de agua a inyección.
Segregar el agua de extinción contaminada. Evitar que entre en desagües o aguas superficiales.

* SECCIÓN 6: Medidas en caso de vertido accidental

* 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia

Para el personal que no forma parte de los servicios de emergencia

Asegurar una ventilación adecuada.
Llevar a las personas fuera del peligro.
Usar equipamiento de protección personal.
Eliminar toda fuente de ignición.

* Para el personal de emergencia

Protección individual

6.2 Precauciones relativas al medio ambiente

Retener las aguas contaminadas, incluida el agua de extinción de incendios, caso de estar contaminada.
No dejar verter ni en la canalización ni en desagües.

6.3 Métodos y material de contención y de limpieza

Para retención

Recoger los restos con material absorbente (p. ej. arena, serrín, absorbente universal).
Eliminar el material recogido de forma reglamentaria.

6.4 Referencia a otras secciones

No hay datos disponibles

SECCIÓN 7: Manipulación y almacenamiento

7.1 Precauciones para una manipulación segura

Medidas de protección

Si una aspiración local no es posible o es insuficiente, se debe garantizar una buena ventilación del campo de trabajo.
Deben observarse las precauciones habituales en la manipulación de productos químicos.
Conservar alejado de toda llama o fuente de chispas - No fumar.
Evitar:
Contacto con los ojos
Contacto con la piel
No respirar los gases/vapores/aerosoles.

Indicaciones para la higiene industrial general

Cuando se lo use, no comer, beber, fumar o estornudar.
Quitar inmediatamente ropa contaminada y mojada.
Lavar las manos antes de las pausas y al fin del trabajo.

7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades

Requisitos para los lugares de almacenamiento y recipientes

Manténgase el recipiente bien cerrado.

Ficha de datos de seguridad de acuerdo con el Reglamento (CE) n.º 1907/2006 (REACH)

10930

Megasantol

Fecha de edición 22.05.2023

Revisión 02.05.2023

Versión 7.6 (es)

reemplaza la versión de 15.11.2021 (7.5)



Materias que deben evitarse

No almacenar junto con:
Agente oxidante

Más datos sobre condiciones de almacenamiento

Almacenar en ambiente seco y fresco.
Proteger de temperaturas elevadas y de los rayos solares directos.

7.3 Usos específicos finales

No hay datos disponibles

*** SECCIÓN 8: Controles de exposición/protección individual**

*** 8.1 Parámetros de control**

*** PNEC**

n.º CAS	Nombre de sustancia	PNEC Valor	PNEC tipo	Observación
107898-54-4	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol	0.025 mg/kg	sedimento, agua de mar	, Extrapolación
107898-54-4	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol	0.048 mg/kg	tierra	, Extrapolación
107898-54-4	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol	0.1 mg/L	estación de depuración (STP)	Factor de evaluación 10
107898-54-4	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol	0.12 µg/L	aguas, agua de mar	Factor de evaluación 10000
107898-54-4	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol	0.246 mg/kg	sedimento, agua dulce	, Extrapolación
107898-54-4	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol	1.2 µg/L	aguas, agua dulce	Factor de evaluación 1000
107898-54-4	(±) trans-3,3-Dimetil-5-(2,2,3-trimetil-ciclopent-3-en-1-il)-pent-4-en-2-ol	222.2 mg/kg	Envenenamiento secundario	Factor de evaluación 90
		alimentos		

*** 8.2 Controles de la exposición**

*** Controles técnicos adecuados**

*** Medidas técnicas para evitar exposiciones**

En general se recomienda el uso de medidas técnicas, como instalaciones cerradas, sistemas de extracción de aire u otras medidas para reducir la exposición de las personas.

*** Protección individual**

Protección de ojos y cara

Gafas con protección lateral

*** Protección de la mano**

Guantes resistentes a productos químicos
EN ISO 374
Class 4

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Protección corporal:

Ropa protectora

Protección respiratoria

Aparatos respiratorios adecuados:

Aparato respiratorio independiente del ambiente de aire (aparato aislador)

* **Controles de exposición medioambiental**

* **Medidas técnicas para evitar exposiciones**

Si es posible, utilizar en sistemas cerrados.

Advertencias complementarias

ningunos

* **SECCIÓN 9: Propiedades físicas y químicas**

* **9.1 Información sobre propiedades físicas y químicas básicas**

Estado físico

líquido

Color

incoloro o amarillo pálido

* **Olor**

leñoso
sandalwood

Datos básicos relevantes de seguridad

	Valor	Método	Fuente, Observación
Umbral olfativo:	no determinado		
Punto de fusión/punto de congelación	Punto de fusión < -20 °C Presión 1013.25 mbar	OCDE 102	ECHA REACH Dossier
Punto de ebullición o punto inicial de ebullición e intervalo de ebullición	273 °C Presión 1013.25 hPa	Reglamento (CE) n° 440/2008, anexo A.2	ECHA REACH Dossier
inflamabilidad	no determinado		
Límite superior e inferior de explosividad	no determinado		
Punto de inflamabilidad	> 100 °C	Reglamento (CE) n° 440/2008, anexo A.9	ECHA REACH Dossier
Temperatura de auto-inflamación	250 °C	Reglamento (CE) n° 440/2008, anexo A.15	ECHA REACH Dossier
Temperatura de descomposición			A temperatura ambiente, el producto es estable.
pH	no determinado		
Viscosidad	no determinado		
Solubilidad(es)	Solubilidad en agua 12.9 µg/L (23°C)	EU Method A.6	ECHA REACH Dossier pH=5,9

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	Valor	Método	Fuente, Observación
Coefficiente de reparto n-octanol/agua (valor logarítmico)	4.989 (25°C)	OCDE 123	ECHA REACH Dossier
Presión de vapor	1.5 Pa (25°C)	EU Method A.4	ECHA REACH Dossier
Densidad y/o densidad relativa	Densidad relativa 0.898- 0.906 g/cm³ (25-25°C)	OCDE 109	ACS International Specification
Densidad de vapor relativa	no determinado		
características de partículas			no aplicable

*** 9.2 Información adicional**

*** Otras características de seguridad**

	Valor	Método	Fuente, Observación
Tensión de superficie	58.7 mN/m (21°C) Concentración 0.011 g/L	OCDE 115	ECHA REACH Dossier

SECCIÓN 10: Estabilidad y reactividad

10.1 Reactividad

No hay datos disponibles

10.2 Estabilidad química

No hay datos disponibles

10.3 Posibilidad de reacciones peligrosas

No hay datos disponibles

10.4 Condiciones que deben evitarse

Desprendimiento de calor.

10.5 Materiales incompatibles

Agente oxidante, fuerte

10.6 Productos de descomposición peligrosos

Monóxido de carbono
Dióxido de carbono

* SECCIÓN 11: Información toxicológica

11.1 Información sobre las clases de peligro definidas en el Reglamento (CE) n.º 1272/2008

*** Toxicidad aguda**

*** Datos de animales**

	Dosis efectiva	Método, Evaluación	Fuente, Observación
Toxicidad oral aguda	LD50: > 5000 mg/kg Especie Rata	OCDE 401 A la vista de los datos disponibles, no se cumplen los criterios de clasificación.	ECHA REACH Dossier

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	Dosis efectiva	Método, Evaluación	Fuente, Observación
Toxicidad dermal aguda	LD50: > 2000 mg/kg Especie Rata	Reglamento (CE) nº 440/2008, anexo B.3 A la vista de los datos disponibles, no se cumplen los criterios de clasificación.	ECHA REACH Dossier

Toxicidad inhalativa aguda no determinado

- * **Estimación/clasificación**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

* **Corrosión o irritación cutáneas**

Datos de animales

Resultado / Evaluación	Método	Fuente, Observación
Provoca irritación cutánea. Especie Conejo Tiempo de exposición 4 h	OCDE 404	ECHA REACH Dossier

- * **Estimación/clasificación**
Provoca irritación cutánea.

* **Lesiones oculares graves o irritación ocular**

Datos de animales

Resultado / Evaluación	Método	Fuente, Observación
A la vista de los datos disponibles, no se cumplen los criterios de clasificación. Especie Conejo	OCDE 405	ECHA REACH Dossier

- * **Estimación/clasificación**
no irritante.

Sensibilización respiratoria

no determinado

* **Sensibilización cutánea**

Datos de animales

Resultado / Evaluación	Dosis / Concentración	Método	Fuente, Observación
El producto no es sensibilizante (test de dosis progresivas/cobayas).	Especie Conejillo de Indias	Reglamento (CE) nº 440/2008, anexo B.6 (Prueba para maximar)	ECHA REACH Dossier

- * **Estimación/clasificación**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

* **Mutagenicidad en células germinales**

	Valor	Método	Resultado / Evaluación	Observación
Mutagenicidad in vitro/genotoxicidad	Mutagenicidad Especie Salmonella typhimurium	OCDE 471 (test ames)	negativo.	ECHA REACH Dossier

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	Valor	Método	Resultado / Evaluación	Observación
Mutagenicidad in vitro/genotoxicidad	Aberración cromosoma estructural o numérica	OCDE 473	negativo.	ECHA REACH Dossier
	Especie linfocitos humanos			
Mutagenicidad in vitro/genotoxicidad	Mutagenicidad	OCDE 476	negativo.	ECHA REACH Dossier
	Especie Célula de hamster			

- * **Estimación/clasificación**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

Carcinogenicidad

no determinado

* Toxicidad para la reproducción

Datos de animales

	Valor	Método	Resultado / Evaluación	Observación
Toxicidad para la reproducción	oral NOAEL(C): ≥ 1000 mg/kg pc/día Especie Rata	OCDE 421		ECHA REACH Dossier

- * **Estimación/clasificación**
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

* Valoración sentificada de las características de CMR

A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

Toxicidad específica en determinados órganos (STOT) – exposición única

STOT SE 1 y 2

Datos de animales

	Dosis efectiva	Método	Efecto específico:	Órganos afectados:	Fuente, Observación
Toxicidad oral específica en órganos diana (exposición única)	1000 mg/kg Especie Rata (machos/hembras)	OECD 408			NOAEL Toxicidad subaguda por vía oral

* Toxicidad específica en determinados órganos (STOT) – exposición repetida

* Datos de animales

	Dosis efectiva	Método	Efecto específico:	Órganos afectados:	Fuente, Observación
Toxicidad oral específica en órganos diana (repetida exposición)	NOAEL(C): 1000 mg/kg pc/día Especie Rata Duración de exposición 90 d	OECD 408			ECHA REACH dossier

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Peligro de aspiración

no determinado

11.2 Información relativa a otros peligros

No hay datos disponibles

*** SECCIÓN 12: Información ecológica**

*** 12.1 Toxicidad**

*** Toxicidad acuática**

	Dosis efectiva	Método, Evaluación	Fuente, Observación
Toxicidad de peces aguda (a corto plazo)	CL50: 1.2 mg/L Especie Oncorhynchus mykiss (Trucha arcoiris) Demora de la prueba 96 h	OCDE 203 Tóxico para pescados.	ECHA REACH Dossier
Toxicidad de peces crónica (a largo plazo)	no determinado		
Toxicidad aguda (breve) para crustáceos	EC50 1.45 mg/L Especie Daphnia magna (pulga acuática grande) Demora de la prueba 48 h	OCDE 202 Tóxico para Pulgas acuáticas.	ECHA REACH Dossier
Toxicidad crónica (a largo plazo) para invertebrados acuáticos	no determinado		
Toxicidad aguda (breve) para algas y cianobacterias	EC50 0.88 mg/L Especie Desmodesmus subspicatus Demora de la prueba 72 h	Reglamento (CE) n° 440/2008, anexo C.3 Muy tóxico para algas.	ECHA REACH Dossier
Toxicidad crónica (continúa) para algas y cianobacterias	no determinado		
Toxicidad para otras plantas/organismos acuáticos	no determinado		
Toxicidad para microorganismos	NOEC 10 mg/L Especie Pseudomonas putida Demora de la prueba 16 h		Multiplicación de células ECHA REACH Dossier

*** Estimación/clasificación**

Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.

*** 12.2 Persistencia y degradabilidad**

	Valor	Método	Fuente, Observación
Biodegradable	Cuota de degradación 7 % Demora de la prueba 28 d	OCDE 301C/ ISO 9408/ EEC 92/69/V, C.4-F	Disminución sustancia - CG No fácilmente biodegradable (según criterios de OCDE)

*** Estimación/clasificación**

No fácilmente biodegradable (según criterios de OCDE)

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*** 12.3 Potencial de bioacumulación**

	Valor	Método	Fuente, Observación
Factor de bioconcentración (FBC)	Cyprinus carpio (Carpa) Factor de bioconcentración (FBC) 46- 60	OCDE 305	ECHA REACH Dossier

*** Estimación/clasificación**

Se enriquece en organismos insignificadamente.

12.4 Movilidad en el suelo

No hay datos disponibles

12.5 Resultados de la valoración PBT y mPmB

Esta sustancia no cumple con los criterios de PBT /vPvB de las disposiciones REACH, anexo XIII.

12.6 Propiedades de alteración endocrina

No hay datos disponibles

12.7 Otros efectos negativos

No hay datos disponibles

*** SECCIÓN 13: Consideraciones relativas a la eliminación**

*** 13.1 Métodos para el tratamiento de residuos**

*** Clave de los residuos/marcas de residuos según CER/AVV**

Clave de residuo producto	Denominación de desperdicio
160305 *	Residuos orgánicos que contienen sustancias peligrosas
Clave de residuo embalaje	Denominación de desperdicio
150110 *	Envases que contienen restos de sustancias peligrosas o están contaminados por ellas

*** Eliminación apropiada / Producto**

Eliminación de residuos según la "Kreislaufwirtschaftsgesetz (KrWG)".
Eliminar los residuos de acuerdo con la legislación aplicable.

Eliminación apropiada / Embalaje

Los embalajes no contaminados pueden ser reciclados.
Los embalajes contaminados deben de ser tratados como la sustancia.

SECCIÓN 14: Información relativa al transporte

	Transporte por vía terrestre (ADR/RID)	Transporte marítimo (IMDG)	Transporte aéreo (ICAO-TI / IATA-DGR)
14.1 Número ONU o número ID	ONU 3082	ONU 3082	ONU 3082
14.2 Designación oficial de transporte de las Naciones Unidas	SUSTANCIA LÍQUIDA POTENCIALMENTE PELIGROSA PARA EL MEDIO AMBIENTE, N.E.P.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.

Ficha de datos de seguridad de acuerdo con el Reglamento (CE) n.º 1907/2006 (REACH)

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	Transporte por vía terrestre (ADR/RID)	Transporte marítimo (IMDG)	Transporte aéreo (ICAO-TI / IATA-DGR)
14.3 Clase(s) de peligro para el transporte	9	9	9
14.4 Grupo de embalaje	III	III	III
14.5 Peligros para el medio ambiente	PELIGROSO PARA EL MEDIO AMBIENTE	PELIGROSO PARA EL MEDIO AMBIENTE Contaminante marino	PELIGROSO PARA EL MEDIO AMBIENTE

14.6 Precauciones particulares para los usuarios

No hay datos disponibles

14.7 Transporte marítimo a granel con arreglo a los instrumentos de la OMI

No hay datos disponibles

Transporte por vía terrestre (ADR/RID)

Número ONU o número ID ONU 3082
Designación oficial de transporte de las Naciones Unidas SUSTANCIA LÍQUIDA POTENCIALMENTE PELIGROSA PARA EL MEDIO AMBIENTE, N.E.P.
Clase(s) de peligro para el transporte 9
Hoja de peligro 9
Código de clasificación M6
Grupo de embalaje III
Peligros para el medio ambiente PELIGROSO PARA EL MEDIO AMBIENTE
Cantidad limitada (LQ) 5 L
Disposiciones especiales 274, 335, 375, 601
Clave de limitación de túnel -

Transporte marítimo (IMDG)

Número ONU o número ID ONU 3082
Designación oficial de transporte de las Naciones Unidas ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Clase(s) de peligro para el transporte 9
Grupo de embalaje III
Peligros para el medio ambiente PELIGROSO PARA EL MEDIO AMBIENTE
Cantidad limitada (LQ) 5 L
Contaminante marino Sí.
EmS F-A, S-F

Transporte aéreo (ICAO-TI / IATA-DGR)

Número ONU o número ID ONU 3082
Designación oficial de transporte de las Naciones Unidas Environmentally hazardous substance, liquid, n.o.s.
Clase(s) de peligro para el transporte 9
Grupo de embalaje III
Peligros para el medio ambiente PELIGROSO PARA EL MEDIO AMBIENTE

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* SECCIÓN 15: Información reglamentaria

* 15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla

No hay datos disponibles

15.2 Evaluación de la seguridad química

No hay datos disponibles

* SECCIÓN 16: Otra información

* Abreviaciones y acrónimos

Para siglas y abreviaturas ver ECHA: Orientación sobre los requisitos de información y de valoración de la seguridad química, capítulo R.20 (registro de terminos y abreviaturas).

ADN: Acuerdo europeo relativo al transporte internacional de mercancías peligrosas por vías de navegación interior

ADR: Acuerdo europeo relativo al transporte internacional de mercancías peligrosas por carretera

Aquatic Acute 1: Riesgo (agudo) a corto plazo para las aguas, Categoría 1

Aquatic Chronic 1: Riesgo (crónico) a largo plazo para las aguas, Categoría 1

BCF: Factor de bioconcentración

BImSchV: Ordenanza para la implementación de la Ley de Control de Inmisión Federal (DE)

BOD: Demanda bioquímica de oxígeno (EN)

BSB: Demanda bioquímica de oxígeno (DE)

CAS: Chemical Abstracts Service

CLP: Clasificación, etiquetado y envasado

CMR: Carcinógeno, mutágeno o tóxico para la reproducción

EC: Comunidad Europea

EC50: concentración efectivo 50%

ECHA: Agencia Europea de Sustancias y Mezclas Químicas

EINECS: Catálogo Europeo de Sustancias Químicas Comercializadas

EmS: planes de emergencia

EU: Unión Europea

GHS: Sistema Globalmente Armonizado de clasificación y etiquetado de productos químicos

IATA: International Air Transport Association

ICAO: Organización de Aviación Civil Internacional

IMDG: Productos Marítimos Peligrosos Internacionales

IMO: Organización Marítima Internacional

IUPAC: International Union of Pure and Applied Chemistry

pc: peso corporal

KOC: Coeficiente de reparto n-octanol/agua (EN)

KOW: Coeficiente de reparto n-octanol/agua (DE)

LD50: Dosis letal 50%

NOAEL: nivel sin efecto adverso observado

NOEL: No Observed Effect Level

OECD: Organización para la Cooperación y el Desarrollo Económicos

PBT: persistente, bioacumulable y tóxico

PNEC: Concentración prevista sin efecto

REACH: Registro, evaluación, autorización y restricción de las sustancias y preparados químicos

RID: Reglamento relativo al transporte internacional de mercancías peligrosas por ferrocarril

Skin Irrit. 2: Irritación cutánea, Categoría 2

STOT: Toxicidad específica en determinados órganos

STP: estación de depuración

ThOD: Demanda teórica de oxígeno

vPvB: muy persistentes y muy bioacumulativas

WGK: clase de peligro de agua

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* **Bibliografías y fuente de datos importantes**

ECHA Reach Dossier
GESTIS, German Social Accident Insurance
Rigoletto, Federal Environmental Agency of Germany

* **Advertencias complementarias**

The product is listed in the following Global Chemical Inventories:

Australia (AIIC)
Canada (DSL)
China (IECSC)
European Union (EINECS) EINECS No. 411-580-3
Korea (Republic of) (AREC)
Korea (Republic of) (ECL) ECL Serial No. 2006-3-3598
New Zealand (NZIoC)
Philippines (PICCS)
Switzerland (SWISS) SWISS No. 280138; 411-580-3
Taiwan (TCSI)
Thailand (TDCA)
United States of America (TSCA)
Vietnam (VNECI)

Respetar la legislación nacional y local en vigor relativa a estos productos químicos.

La información en ésta hoja de datos de seguridad corresponden al leal saber de nuestros conocimiento el día de impresión. Las informaciones deben de ser puntos de apoyo para un manejo seguro de productos mencionados en esta hoja de seguridad para el almacenamiento, elaboración, transporte y eliminación. Las indicaciones no se pueden traspasar a otros productos. Mientras el producto sea mezclado o elaborado con otros materiales, las indicaciones de esta hoja de seguridad no se pueden traspasar así al agente nuevo. Dado que el uso de esta información y las condiciones de uso del producto no están bajo el control de ACS Internacional, es obligación del usuario determinar las condiciones de uso seguro del producto.

Texto de las frases H- y EUH (Número y texto)

H315 Provoca irritación cutánea.
H400 Muy tóxico para los organismos acuáticos.
H410 Muy tóxico para los organismos acuáticos, con efectos nocivos duraderos.

Indicación de modificaciones

* Datos frente la versión anterior modificados



Ficha de datos de seguridad conforme al
Reglamento (CE) n.º 1907/2006 (REACH)
Fecha de impresión 04.01.2021
Revision 04.01.2021 (E) Versión 7.8
Dihydroionon beta
10931

SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

1.1. Identificador del producto

Nombre comercial	Dihydroionon beta
	Prod-Nr 10931
Nombre de la sustancia	4-(2,6,6-trimethyl-1-cyclohexen-1-yl)butan-2-one
EC No	241-318-1
REACH número de registro	01-2120229990-52-****
CAS No	17283-81-7

1.2. Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

No existen informaciones.

1.3. Datos del proveedor de la ficha de datos de seguridad

Fabricante / proveedor	A.C.S. International GmbH Im Wesertal 5, D-37671 Hötter - Stahle Teléfono +49 (0)5531 9906142, Fax +49 (0)5531 9906 196 E-Mail regulatory@acsint.com Internet www.acsint.com
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Departamento informante	GIZ-Nord, Göttingen, Germany
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1.4. Teléfono de emergencia

Teléfono de emergencia	Teléfono +49 551 19240
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SECCIÓN 2: Identificación de los peligros

2.1. Clasificación de la sustancia o de la mezcla

Clasificación - (CE) No 1272/2008 [CLP/GHS]

Clases y categorías de peligro	Indicaciones de peligro	Procedimiento de clasificación
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Aquatic Chronic 2	H411	
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Indicaciones de peligro para peligro del medio ambiente

H411	Tóxico para los organismos acuáticos, con efectos nocivos duraderos.
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2.2. Elementos de la etiqueta

Etiquetado - (CE) No 1272/2008 [CLP/GHS]



GHS09

Indicaciones de peligro para peligro del medio ambiente

H411	Tóxico para los organismos acuáticos, con efectos nocivos duraderos.
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Indicaciones de seguridad

Prevención

P273	Evitar su liberación al medio ambiente.
------	---

Reacción

P391 Recoger el vertido.

2.3. Otros peligros

No existen informaciones.

! SECCIÓN 3: Composición/ información sobre los componentes**3.1. Sustancias**

CAS No 17283-81-7

4-(2,6,6-trimethyl-1-cyclohexen-1-yl)butan-2-one

EC No 241-318-1

REACH número de registro 01-2120229990-52-****

3.2. Mezclas

no puede aplicarse

SECCIÓN 4: Primeros auxilios**4.1. Descripción de los primeros auxilios****Indicaciones generales**

Quitarse inmediatamente toda la ropa manchada o empapada.

En caso de inhalación

Llevar el afectado al aire libre y consultar al médico.

En caso de contacto con la piel

Lavar la zona afectada inmediatamente con agua y jabón.

Quitar inmediatamente toda la ropa contaminada, inclusive ropa interior y zapatos.

Consultar inmediatamente al médico.

En caso de contacto con los ojos

Lavar cuidadosamente y a fondo con agua abundante y acudir al médico.

En caso de ingestión

No provocar el vómito.

Consultar inmediatamente al médico.

Enjuagar la boca cuidadosamente y a fondo con agua.

4.2. Principales síntomas y efectos, agudos y retardados

No existen informaciones.

4.3. Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente

No existen informaciones.

SECCIÓN 5: Medidas de lucha contra incendios**5.1. Medios de extinción****Medios de extinción apropiados**

Espuma

Agentes extintores secos

Dióxido de carbono

Material extintor inadecuado

Chorro de agua

5.2. Peligros específicos derivados de la sustancia o la mezcla

Monóxido de carbono (CO)
Dióxido de carbono (CO₂)

5.3. Recomendaciones para el personal de lucha contra incendios**Equipo especial de protección en caso de incendio**

Utilizar aparato respiratorio autónomo.
No respirar los gases de la explosión y/o combustión.

Otras indicaciones

Refrigerar con agua pulverizada los recipientes en peligro.

SECCIÓN 6: Medidas en caso de vertido accidental**6.1. Precauciones personales, equipo de protección y procedimientos de emergencia****Personal no formado para emergencias**

Procurar ventilación suficiente.
Llevar las personas a un sitio seguro.
Llevar ropa de protección personal.
Mantener alejado de fuentes de ignición.

6.2. Precauciones relativas al medio ambiente

Retener las aguas contaminadas, incluida el agua de extinción de incendios, caso de estar contaminada.

6.3. Métodos y material de contención y de limpieza

Recoger los restos con material absorbente (p. ej. arena, serrín, absorbente universal).
Eliminar el material recogido de forma reglamentaria.

6.4. Referencia a otras secciones

No existen informaciones.

SECCIÓN 7: Manipulación y almacenamiento**7.1. Precauciones para una manipulación segura****Indicaciones para la manipulación sin peligro**

Procurar buena ventilación de los locales; dado el caso, instalar aspiración localizada en el lugar de trabajo.
Deben observarse las precauciones habituales en la manipulación de productos químicos.

Medidas de protección generales

Evitar el contacto con los ojos y la piel.
No respirar los gases/vapores/aerosoles.

Medidas de higiene laboral

No fumar, ni comer o beber durante el trabajo.
Quitarse inmediatamente la ropa protectora empapada.
Lavarse las manos antes de los descansos y al terminar el trabajo.

Indicaciones para la protección contra incendio y explosión

Mantener el producto lejos de fuentes de ignición. No fumar.

7.2. Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**Indicaciones para el almacenamiento conjunto**

No almacenar junto con oxidantes.

Indicaciones adicionales para las condiciones de almacenamiento

Mantener los recipientes herméticamente cerrados.
Almacenar en ambiente seco y fresco.
Proteger de temperaturas elevadas y de los rayos solares directos.

7.3. Usos específicos finales

No existen informaciones.

SECCIÓN 8: Controles de exposición/protección individual

8.1. Parámetros de control

No existen informaciones.

8.2. Controles de la exposición

Protección respiratoria

Equipo respiratorio autónomo

Protección de las manos

Guantes resistentes a productos químicos

Protección de los ojos

Gafas protectoras con protección lateral

Otras medidas de protección

Ropa protectora

Limitación y vigilancia de la exposición ambiental

no es determinada

! SECCIÓN 9: Propiedades físicas y químicas

9.1. Información sobre propiedades físicas y químicas básicas

Aspecto

líquido

Color

colorless to pale yellow

Olor

floral orris-like woody green

Umbral olfativo

no es determinada

Información importante en relación con la salud, la seguridad y el medio ambiente

	Valor	Temperatura	a	Método	Comentario
valor pH	no es determinada				
Índice de acidez	<= 1 mgKOH/g				
Temperatura de ebullición/zona de ebullición	no es determinada				
Temperatura de fusión / Punto de congelación	no es determinada				
Punto de inflamación	> 100 °C			Copa cerrada	

	Valor	Temperatura	a	Método	Comentario
Velocidad de evaporación	no es determinada				
Inflamabilidad (sólido)	no es determinada				
Inflamabilidad (gas)	no es determinada				
Temperatura de ignición	no es determinada				
Temperatura de autoignición	no es determinada				
Límite de explosión inferior	no es determinada				
Límite de explosión superior	no es determinada				
Presión de vapor	no es determinada				
Densidad relativa	0,926 - 0,931 g/cm ³	20 °C			
Densidad de vapor	no es determinada				
Solubilidad en agua					El producto no es soluble.
Solubilidad / otros	no es determinada				
Coefficiente de distribución (n-octanol/agua) (log P O/W)	no es determinada				
Temperatura de descomposición	no es determinada				
Viscosidad	no es determinada				
Propiedades comburentes No existen informaciones.					
Propiedades explosivas No existen informaciones.					
9.2. Otra información No existen informaciones.					

SECCIÓN 10: Estabilidad y reactividad

10.1. Reactividad

No existen informaciones.

10.2. Estabilidad química

No existen informaciones.

10.3. Posibilidad de reacciones peligrosas

No existen informaciones.

10.4. Condiciones que deben evitarse

Desprendimiento de calor.

10.5. Materiales incompatibles

Sustancias que deben evitarse

Reacción con ácidos y oxidantes fuertes.

10.6. Productos de descomposición peligrosos

Monóxido de carbono y dióxido de carbono

Descomposición térmica

Comentario A temperatura ambiente, el producto es estable.

! SECCIÓN 11: Información toxicológica

11.1. Información sobre los efectos toxicológicos

Toxicidad aguda/Irritación / Sensibilización

	Valor/Valoración	Especie	Método	Comentario
Toxicidad oral aguda	> 2000 mg/kg	Rata		

! SECCIÓN 12: Información ecológica

12.1. Toxicidad

Efectos ecotóxicos

	Valor	Especie	Método	Valoración
Dafnia	CE50 5,72 mg/l (48 h)		OCDE 202	
Algas	CE50 3,38 - 10 mg/l (72 h)		OCDE 201	

12.2. Persistencia y degradabilidad

	Grado de eliminación	Mét. análisis	Método	Valoración
Biodegradación				El producto es fácilmente degradable.

12.3. Potencial de bioacumulación

No existen informaciones.

12.4. Movilidad en el suelo

No existen informaciones.

12.5. Resultados de la valoración PBT y mPmB

No existen informaciones.

12.6. Otros efectos negativos

No existen informaciones.

SECCIÓN 13: Consideraciones relativas a la eliminación

13.1. Métodos para el tratamiento de residuos

Recomendación para el producto

No existen reglamentos normalizados para la eliminación de productos químicos o residuales en los Estados miembros de la UE. En Alemania la recuperación está reglamentada por las leyes relativas a la economía de reciclaje y a los desechos (KrWG).

Recomendación para los envases / embalajes

Envases/embalajes contaminados deben ser vaciados lo mejor posible; después, tras la correspondiente limpieza, pueden ser utilizados de nuevo.

Envases/embalajes que no pueden ser limpiados deben ser eliminados de la misma forma que el producto contenido.

! SECCIÓN 14: Información relativa al transporte

	ADR/RID	IMDG	IATA-DGR
14.1. Número ONU	3082	3082	3082
14.2. Designación oficial de transporte de las Naciones Unidas	Environmentally hazardous substances, liquid, n.o.s	Environmentally hazardous substances, liquid, n.o.s	Environmentally hazardous substances, liquid, n.o.s
14.3. Clase(s) de peligro para el transporte	9	9	9
14.4. Grupo de embalaje	III	III	III
14.5. Peligros para el medio ambiente	Sí	Sí	Sí

14.6. Precauciones particulares para los usuarios

No existen informaciones.

14.7. Transporte a granel con arreglo al anexo II del Convenio Marpol 73/78 y del Código IBC

No existen informaciones.

Transporte por tierra ADR/RID

Hoja de peligro 9

Transporte por mar IMDG
MARINE POLLUTANT

SECCIÓN 15: Información reglamentaria

15.1. Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla

Disposiciones nacionales

Otras disposiciones aplicables, limitaciones y prohibiciones

Ninguno/a.

WGK (peligrosidad para 2 **dato bibliográfico**
aguas): Clase

15.2. Evaluación de la seguridad química

No existen informaciones.

SECCIÓN 16: Otra información

Consejos relativos a la formación

Ninguno/a.

Uso aconsejado y limitaciones

Respetar la legislación nacional y local en vigor relativa a estos productos químicos.

Otras indicaciones

Los datos se basan en el estado actual de nuestros conocimientos, aunque no suponen una garantía de que el producto posea determinadas propiedades y no pueden ser la base de una relación legal.

Indicación de modificaciones: "!" = Datos frente la versión anterior modificados. Versión anterior: 7.7

Procedencia de los datos más importantes

Listed in EINECS and TSCA

Shipper
LEXZAU, SCHARBAU GMBH & CO. KG
KAP-HORN-STR. 18,
28237 BREMEN, GERMANY
TAX ID: DE 114624125

B/L No.
ALM252915



SACO SHIPPING LINE LTD

Consigned to order of
LESCHACO MEXICANA, S.A. DE C.V.
BLVD. MANUEL AVILA CAMACHO
NO. 88-PISO 8
COL. LOMAS DE CHAPULTEPEC
11000 MEXICO, D.F., MEXICO
TEL.: +52(55)59550000 **)

Notify Party and address
LESCHACO MEXICANA, S.A. DE C.V.
BLVD. MANUEL AVILA CAMACHO
NO. 88-PISO 8
COL. LOMAS DE CHAPULTEPEC
11000 MEXICO, D.F., MEXICO
TEL.: +52(55)59550000 **)

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526703

Copy

		Place of receipt		
		CFS BREMEN		
Ocean vessel			Port of loading	
AL MANAMAH			HAMBURG	
Port of discharge	Place of delivery	Freight payable	Number of original Bills of Lading	
ALTAMIRA	CFS ALTAMIRA	BREMEN	0/ZERO	
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg. Measurement, m ³
CARGO DETAILS AS PER ATTACHED STATEMENT				

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA, C.P. 06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
CREACIONES IGUAZU, ALTAMIRA	9 PALLETS	2 PLASTIC DRUMS UN 1H1 INDOLE HS CODE : 29339920 UN 2811, TOXIC SOLID, ORGANIC, N.O.S. (INDOLE), 6.1, III 3 STEEL DRUMS UN 1A1 TRIMORAN HS CODE : 29142900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT OF ACETIC ANHYDRIDE AND 1,5,10-TRIME THYLCYCLODODECA-1,5,9-TRIE NE), 9, III, MARINE POLLUTANT 2 STEEL DRUMS UN 1A1 SANDACANOL HS CODE : 29061900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((2E)-2-ETH YL-4-(2,2,3-TRIMETHYLCYCLO PENT-3-EN-1-YL)BUT-2-EN-1- OL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 MEGASANTOL HS CODE : 29061900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((+-) TRANS- 3,3-DIMETHYL-5-(2,2,3-TRIM ETHYL-CYCLOPENT-3-EN-1-YL) -PENT-4-EN-2-OL), 9, III, MARINE POLLUTANT 7 STEEL DRUMS UN 1A1 MEGASANTOL HS CODE : 29061900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((+) TRANS- 3,3-DIMETHYL-5-(2,2,3-TRIM ETHYL-CYCLOPENT-3-EN-1-YL) -PENT-4-EN-2-OL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 CINNAMIC ALCOHOL HS CODE : 29062900 UN 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CINNAMYL ALCOHOL), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 ROSE KETONE DELTA HS CODE : 29142900 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((E)-1-(2,6		6092,630	11,827

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
		,6-TRIMETHYL-1-CYCLOHEX-3-ENYL)BUT-2-EN-1-ONE), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 DIHYDROIONON BETA HS CODE : 29142300 UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-(2,6,6-TRIMETHYL-1-CYCLOHEXEN-1-YL)BUTAN-2-ONE), 9, III, MARINE POLLUTANT 1 STEEL DRUM UN 1A1 PHENYLPROPANOL HS CODE: 29062900 UN 1760, CORROSIVE LIQUID, N.O.S. (3-PHENYLPROPAN-1-OL), 8, II, MARINE POLLUTANT, IMDG-CODE SEGREGATION GROUP 0-NOT APPLICABLE 1 DRUMS DIHYDROAMBRETTOLIDE EXTRA PURE HS CODE : 29322090 2 DRUMS PHENYLACETALDEHYDE DIMETHYL ACETAL HS CODE : 29110000 12 DRUMS METHYL DIHYDRO JASMONATE HC 70 HS CODE : 29183000 3 DRUMS METHOXYPHENAL TOC HS CODE : 29124900 3 DRUMS METHOXYPHENAL TOC HS CODE : 29124900 2 DRUMS AMBRETTOLIDE HC HS CODE : 29322090 4 DRUMS GREYWOOD 10% IN DPG HS CODE : 33029090 2 DRUMS LACTOMIEL 10% IN DPG HS CODE : 33029090 5 DRUMS AMBRETTOLIDE HC SUPREME HS CODE : 29322090 5 DRUMS 2-ETHOXY-2,6,6-TRIMETHYL-9-METHYLENEBICYCLO HS CODE: 29142300 5 DRUMS (E)-1-(2,6,6-TRIMETHYL-1-CYCLOHEXEN-1-YL)-2-BUTEN-1-ONE HS CODE: 29142900 **) RFC: LME980116R15			

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
		NVOCC SELF FILER - SCAC CODE: ALRB			
STOWED INTO CONTAINER NO.: NYKU4710376				SEAL : WWA010179041	
TOTAL		9 PALLETS		6092,630 KGS	11,827 CBM

MULTI MODAL DANGEROUS GOODS FORM

This form may be used as a dangerous goods declaration as it meets the requirements of SOLAS 74, Chapter VII, regulation 4;

MARPOL 73/78, Annex III, regulation 4

Shipper/Consignor/Sender Symrise AG Muehlenfeldstrasse 1 37603 Holzminden Germany		Page 1 of 1 Pages	Freight Forwarder's reference 240613170118
		Carrier Saco Shipping Line, Limassol ALM252938	
Consignee SYMRISE S DE RL DE CV Y/O AGENTE ADUANAL DE AMERICANA (SYM-750430-R87) ALTAMIRA TAMPICO GUADALUPE ALONSO AV. RIO TAMESI KM 0+700		Vessel Jazan (010W)	
		Port of loading Hamburg	Port of discharge Altamira
CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described below have been packed/loaded into the container/vehicle identified below in accordance with the applicable provisions. MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING Name/status, company Place and Date: Signature of packer		SHIPPER'S DECLARATION I hereby declare that the contents of this consignment are fully and accurately described below by the proper shipping name, and are classified, packaged, marked and labelled/placarded and are in all respects in proper condition for transport according to the applicable international and national government regulations. Name/status, company Lexzau, Scharbau on behalf of Symrise, Holzminden Place and Date: Hamburg / Bremen 23.05.2024 <i>T. Liberoudis T. Glaubke</i> Signature on behalf of shipper Thomas Liberoudis / Timo Glaubke	
No.	Number & kind of packages	Description of goods	Gross mass
1)	1 one-way pallet = 16 plastic jerricans UN 3H1	pallet weight: 12,500 kg UN 1197 EXTRACTS, LIQUID, 3, II, (+22,0°C c.c.), EmS: F-E,S-D Emergency Contact: Symrise AG via GBK/Infotrac ID 101844 24-hours no. Europe: GBK +49-6132-9829021 toll free: Infotrac +1-800-535-5053 Intl.: Infotrac +1-352-323-3500 Cargo gross/net weight: 421,600kg / 400,000kg	Gross weight: 421,600 kg

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**LIME EXTRACT FTNF**

Version	Revision Date:	SDS Number:	Date of last issue: 29.12.2022
13.0	15.06.2023	141943	Date of first issue: 04.04.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : LIME EXTRACT FTNF

Product code : 141943

Unique Formula Identifier (UFI) : 2T05-4UQ4-D00J-DAWP

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-stance/Mixture : Flavor mix

1.3 Details of the supplier of the safety data sheet

Company : Symrise AG
Mühlenfeldstrasse 1
37603 Holzminden

Telephone : +495531900

Telefax : +495531901649

E-mail address of person responsible for the SDS : sds@symrise.com

1.4 Emergency telephone number

Emergency CONTACT (24-Hour-Number)
GBK/Infotrac ID 101844: +49(6132)9829021

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Flammable liquids, Category 2 H225: Highly flammable liquid and vapour.

Eye irritation, Category 2 H319: Causes serious eye irritation.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**LIME EXTRACT FTNF**

Version	Revision Date:	SDS Number:	Date of last issue: 29.12.2022
13.0	15.06.2023	141943	Date of first issue: 04.04.2021

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Additional Labelling

EUH208 Contains citral, (R)-p-mentha-1,8-diene; d-limonene. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
ethanol; ethyl alcohol	64-17-5 200-578-6 603-002-00-5	Flam. Liq. 2; H225 Eye Irrit. 2; H319 specific concentration limit	>= 50 - < 70

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**LIME EXTRACT FTNF**

Version 13.0 Revision Date: 15.06.2023 SDS Number: 141943 Date of last issue: 29.12.2022
 Date of first issue: 04.04.2021

		Eye Dam. 2 50 %	
citral	5392-40-5 226-394-6 605-019-00-3	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317	>= 0,1 - < 1
(R)-p-mentha-1,8-diene; d-limonene	5989-27-5 227-813-5 601-096-00-2	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 3; H412 M-Factor (Acute aquatic toxicity): 1	>= 0,1 - < 0,25

For explanation of abbreviations see section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
- If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Rinse mouth with water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Never give anything by mouth to an unconscious person.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**LIME EXTRACT FTNF**

Version	Revision Date:	SDS Number:	Date of last issue: 29.12.2022
13.0	15.06.2023	141943	Date of first issue: 04.04.2021

If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes serious eye irritation.

First aider needs to protect himself.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.
There is no specific antidote available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : In the event of fire and/or explosion do not breathe fumes.
Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

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6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For disposal considerations see section 13., For personal protection see section 8.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Advice on safe handling : Take precautionary measures against static discharges. Avoid formation of aerosol. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : No special restrictions on storage with other products.

Storage class (TRGS 510) : 3, Flammable liquids

Further information on storage stability : No decomposition if stored and applied as directed.

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7.3 Specific end use(s)

Specific use(s) : Flavor mix

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethanol; ethyl alcohol	64-17-5	MAK	200 ppm 380 mg/m ³	DFG
		AGW	200 ppm 380 mg/m ³	DE TRGS 900
(R)-p-mentha-1,8-diene; d-limonene	5989-27-5	MAK	5 ppm 28 mg/m ³	DFG
		AGW	5 ppm 28 mg/m ³	DE TRGS 900

8.2 Exposure controls**Personal protective equipment**

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use. Wear chemicals-resistant gloves, e.g. safety gloves of nitril (thickness 0.4mm) or of butyl rubber (thickness 0.7mm).

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : Not required; except in case of aerosol formation.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state : clear liquid

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Colour	:	pale yellow to yellow
Odour	:	characteristic
Odour Threshold	:	No data available
Melting point/freezing point	:	not determined
Boiling point/boiling range	:	not determined
Upper explosion limit / Upper flammability limit	:	Vapours may form explosive mixtures with air.
Lower explosion limit / Lower flammability limit	:	Vapours may form explosive mixtures with air.
Flash point	:	22 °C
Decomposition temperature	:	not determined
pH	:	not determined
Viscosity		
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	28 kPa (50 °C) calculated
Relative density	:	0,8990 - 0,9190 (20 °C) relation to density of water at 4°C
Bulk density	:	Not applicable
Relative vapour density	:	not determined

9.2 Other information

Explosives	:	Due to its structural properties, the product is not classified as explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Self-ignition	:	The substance or mixture is not classified as self heating.

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Evaporation rate : Not applicable

Molecular weight : Not applicable

SECTION 10: Stability and reactivity**10.1 Reactivity**

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Not classified based on available information.

Components:**ethanol; ethyl alcohol:**Acute oral toxicity : LD50 Oral (Rat, male and female): 10.470 mg/kg
Method: OECD Test Guideline 401Acute inhalation toxicity : LC50 (Rat, male and female): 117 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
GLP: noAcute dermal toxicity : LD50 Dermal (Rabbit): > 20.000 mg/kg
Method: OECD Test Guideline 402

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citral:

Acute oral toxicity : LD50 Oral (Rat, male and female): ca. 6.800 mg/kg
GLP: no

Acute dermal toxicity : LD50 Dermal (Rat, male and female): > 2.000 mg/kg
GLP: no

(R)-p-mentha-1,8-diene; d-limonene:

Acute oral toxicity : LD50 Oral (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 423
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Remarks: Information given is based on data obtained from similar substances.

Skin corrosion/irritation

Not classified based on available information.

Components:**ethanol; ethyl alcohol:**

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes
Concentration : 100 %

(R)-p-mentha-1,8-diene; d-limonene:

Species : Rabbit
Exposure time : 4 h
Method : OECD Test Guideline 404
Result : Skin irritation
GLP : yes
Concentration : 100 %

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:**ethanol; ethyl alcohol:**

Species : Rabbit
Method : OECD Test Guideline 405
Result : Eye irritation
Concentration : 100 %

citral:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Eye irritation

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GLP : no
Concentration : 100 %

(R)-p-mentha-1,8-diene; d-limonene:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Mild eye irritation
GLP : yes
Concentration : 100 %

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**ethanol; ethyl alcohol:**

Test Type : Maximisation Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : No sensitizing effect.
GLP : no

citral:

Test Type : Local Lymph Node Assay
Species : Mouse
Method : OECD 429
Result : Sensitizing effect.
Concentration : 6,3 %
solvents : Diethylphthalate/Ethyl alcohol (3:1)

Test Type : Maximisation Test
Species : Guinea pig
Method : OECD Test Guideline 406
Result : Sensitizing effect.
GLP : no
Concentration : 25 %
solvents : Paraffin oil

(R)-p-mentha-1,8-diene; d-limonene:

Test Type : Local Lymph Node Assay
Species : Mouse
Method : OECD Test Guideline 429
Result : Sensitizing effect.
GLP : yes
Concentration : 22 %
solvents : Diethylphthalate/Ethyl alcohol (3:1)

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Germ cell mutagenicity

Not classified based on available information.

Components:**ethanol; ethyl alcohol:**

Genotoxicity in vitro : Test Type: Ames test
 Metabolic activation: with and without metabolic activation
 Method: OECD 471
 Result: negative

Test Type: In vitro Mammalian Cell Gene Mutation Test
 Test system: mouse lymphoma L5178Y cells
 Metabolic activation: with and without metabolic activation
 Method: OECD 476
 Result: negative

citral:

Genotoxicity in vitro : Test Type: Ames test
 Metabolic activation: with and without metabolic activation
 Method: OECD 471
 Result: negative

Test Type: In vitro Mammalian Cell Gene Mutation Test
 Test system: Chinese hamster ovary cells
 Metabolic activation: with and without metabolic activation
 Method: OECD 476
 Result: negative
 GLP: yes

Test Type: In vitro Mammalian Chromosome Aberration Test
 Test system: Chinese hamster ovary cells
 Metabolic activation: with and without metabolic activation
 Method: OECD 473
 Result: negative

Genotoxicity in vivo : Test Type: Mammalian Erythrocyte Micronucleus Test
 Species: Mouse (male and female)
 Application Route: Oral
 Method: OECD Test Guideline 474
 Result: negative

(R)-p-mentha-1,8-diene; d-limonene:

Genotoxicity in vitro : Test Type: In vitro Mammalian Cell Gene Mutation Test
 Test system: mouse lymphoma L5178Y cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 476
 Result: negative

Test Type: sister chromatid exchange assay
 Test system: Chinese hamster ovary cells
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 479

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Result: negative
GLP: no

Test Type: In vitro Mammalian Chromosome Aberration Test
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: no

Test Type: Ames test
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Genotoxicity in vivo : Test Type: comet assay
Species: Rat (male)
Application Route: Oral
Result: negative
GLP: no

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards**Endocrine disrupting properties****Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information**Product:**

Remarks : Solvents may degrease the skin.

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SECTION 12: Ecological information**12.1 Toxicity****Components:****ethanol; ethyl alcohol:**

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 15.300 mg/l Exposure time: 96 h Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Ceriodaphnia dubia): 5.012 mg/l Exposure time: 48 h Test Type: static test
Toxicity to algae/aquatic plants	:	EC50 (Chlorella vulgaris (Fresh water algae)): 675 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to microorganisms	:	IC50 (Activated sludge): > 1.000 mg/l Exposure time: 3 h Test Type: static test Method: OECD 209

citral:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 6,78 mg/l End point: mortality Exposure time: 96 h Test Type: static test Analytical monitoring: no Method: DIN 38412 GLP: no
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 6,8 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: no Method: Directive 67/548/EEC, Annex V, C.2. GLP: no
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 103,8 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Analytical monitoring: no Method: DIN 38412 (part 9) GLP: no
		EC10 (Desmodesmus subspicatus (green algae)): 3 mg/l End point: Growth rate Exposure time: 72 h

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Test Type: static test
 Analytical monitoring: no
 Method: DIN 38412 (part 9)
 GLP: no

Toxicity to microorganisms : EC50 (Activated sludge): ca. 160 mg/l
 Exposure time: 0,5 h
 Test Type: static test
 Analytical monitoring: no
 Method: OECD 209
 GLP: no

(R)-p-mentha-1,8-diene; d-limonene:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0,720 mg/l
 End point: mortality
 Exposure time: 96 h
 Test Type: flow-through test
 Analytical monitoring: yes
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,307 mg/l
 End point: Immobilization
 Exposure time: 48 h
 Test Type: semi-static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 202
 GLP: yes

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): 0,32 mg/l
 End point: Growth rate
 Exposure time: 72 h
 Test Type: static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 201
 GLP: yes

EC10 (Raphidocelis subcapitata (freshwater green alga)): 0,174 mg/l
 End point: Growth rate
 Exposure time: 72 h
 Test Type: static test
 Analytical monitoring: yes
 Method: OECD Test Guideline 201
 GLP: yes

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : EC50 (Activated sludge): 209 mg/l
 Exposure time: 3 h
 Test Type: static test
 Analytical monitoring: no

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Method: OECD Test Guideline 209
GLP: yes

EC10 (Activated sludge): 18 mg/l
Exposure time: 3 h
Test Type: static test
Analytical monitoring: no
Method: OECD Test Guideline 209
GLP: yes

Toxicity to fish (Chronic toxicity) : EC10: > 0,37 - < 0,67 mg/l
Exposure time: 8 d
Species: Pimephales promelas (fathead minnow)
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD 212
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10: 0,153 mg/l
End point: Reproduction rate
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 211
GLP: yes

12.2 Persistence and degradability**Components:****ethanol; ethyl alcohol:**

Biodegradability : Test Type: Closed Bottle test
Result: Readily biodegradable.
Biodegradation: > 70 %
Exposure time: 5 d
Method: OECD 301D

citral:

Biodegradability : Test Type: Manometric respiration test
Result: Readily biodegradable.
Biodegradation: > 90 %
Exposure time: 28 d
Method: OECD 301F
GLP: yes

(R)-p-mentha-1,8-diene; d-limonene:

Biodegradability : Test Type: CO2 Evolution Test
Result: Readily biodegradable.
Biodegradation: 71 %
Exposure time: 28 d
Method: OECD 301B

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GLP: yes

12.3 Bioaccumulative potential**Components:****ethanol; ethyl alcohol:**

Partition coefficient: n-octanol/water : log Pow: -0,32

citral:

Partition coefficient: n-octanol/water : log Pow: 2,76 (25 °C)
Method: OECD Test Guideline 107
GLP: no

(R)-p-mentha-1,8-diene; d-limonene:

Partition coefficient: n-octanol/water : log Pow: 4,38 (37 °C)
pH: 7,2
Method: OECD Test Guideline 117

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties**Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Product : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

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Contaminated packaging : Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.
 Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information**14.1 UN number or ID number**

ADR : UN 1197
 RID : UN 1197
 IMDG : UN 1197
 IATA : UN 1197

14.2 UN proper shipping name

ADR : EXTRACTS, LIQUID
 RID : EXTRACTS, LIQUID
 IMDG : EXTRACTS, LIQUID
 IATA : Extracts, liquid

14.3 Transport hazard class(es)

ADR : 3
 RID : 3
 IMDG : 3
 IATA : 3

14.4 Packing group

ADR
 Packing group : II
 Classification Code : F1
 Hazard Identification Number : 33
 Labels : 3
 Tunnel restriction code : (D/E)
 Remarks : Special Provision 640D

RID
 Packing group : II
 Classification Code : F1
 Hazard Identification Number : 33
 Labels : 3
 Remarks : Special Provision 640D

IMDG
 Packing group : II

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Labels : 3
EmS Code : F-E, S-D

IATA (Cargo)

Packing instruction (cargo aircraft) : 364
Packing instruction (LQ) : Y341
Packing group : II
Labels : Flammable Liquid

IATA (Passenger)

Packing instruction (passenger aircraft) : 353
Packing instruction (LQ) : Y341
Packing group : II
Labels : Flammable Liquid

14.5 Environmental hazards**ADR**

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered:
Number on list 3

ethanol; ethyl alcohol (Number on list 40, 3)
citral (Number on list 3)
(R)-p-mentha-1,8-diene; d-limonene (Number on list 3)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

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Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c	FLAMMABLE LIQUIDS	Quantity 1 5.000 t	Quantity 2 50.000 t
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Water hazard class (Germany) : WGK 1 slightly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : Total dust:
Not applicable
Inorganic substances in powdered form:
Not applicable
Inorganic substances in vapour or gaseous form:
Not applicable
Organic Substances:
Not applicable
Carcinogenic substances:
Not applicable
Mutagenic:
Not applicable
Toxic to reproduction:
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 50,2 %

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information**Full text of H-Statements**

H225	: Highly flammable liquid and vapour.
H226	: Flammable liquid and vapour.
H304	: May be fatal if swallowed and enters airways.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H400	: Very toxic to aquatic life.
H412	: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Asp. Tox.	: Aspiration hazard

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Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
DE TRGS 900	:	Germany. TRGS 900 - Occupational exposure limit values.
DFG	:	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).
DE TRGS 900 / AGW	:	Exposure limit(s):
DFG / MAK	:	Maximum allowable concentration:

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information**Classification of the mixture:**

Flam. Liq. 2	H225
Eye Irrit. 2	H319

Classification procedure:

Based on product data or assessment
Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**LIME EXTRACT FTNF**

Version	Revision Date:	SDS Number:	Date of last issue: 29.12.2022
13.0	15.06.2023	141943	Date of first issue: 04.04.2021

to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

DE / EN

Shipper
LEXZAU, SCHARBAU GMBH & CO. KG
KAP-HORN-STR. 18, 28237 BREMEN,
GERMANY, TAX ID: DE 114624125

B/L No.
ALM252938



SACO SHIPPING LINE LTD

Consigned to order of
LESCHACO MEXICANA, S.A. DE C.V.
BLVD. MANUEL AVILA CAMACHO
NO. 88-PISO 8
COL. LOMAS DE CHAPULTEPEC
11000 MEXICO, D.F., MEXICO
TEL.: +52(55)59550000 **)

Notify Party and address
LESCHACO MEXICANA, S.A. DE C.V.
BLVD. MANUEL AVILA CAMACHO
NO. 88-PISO 8
COL. LOMAS DE CHAPULTEPEC
11000 MEXICO, D.F., MEXICO
TEL.: +52(55)59550000 **)

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526704

Copy

		Place of receipt		
		CFS BREMEN		
Ocean vessel			Port of loading	
AL MANAMAH			HAMBURG	
Port of discharge	Place of delivery	Freight payable	Number of original Bills of Lading	
ALTAMIRA	CFS ALTAMIRA	BREMEN	0/ZERO	
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg. Measurement, m ³
CARGO DETAILS AS PER ATTACHED STATEMENT				

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA, C.P. 06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
SYMRISE S DE R.L. DE C.V. SAN NICOLAS DE LOS GARZA, N.L. VIA TAMPICO 33492323/01 4500931020	16 JERRICANS	STOWED ON 1 ONE-WAY PALLET FLAVOUR COMPOUND LIME FLAVOR FTNF HS CODE: 33021090 UN 1197, EXTRACTS, LIQUID, 3, II, (+22.00 C C.C.) **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB UN 1197/CLASS 3/PG II/FLP. +022 IMO GROSS WEIGHT: 421,600 KGS IMO NET WEIGHT : 400,000 KGS EXTRACTS, LIQUID		434,100	0,912
STOWED INTO CONTAINER NO.: NYKU4710376				SEAL : WWA010179041	
TOTAL	16 JERRICANS			434,100 KGS	0,912 CBM

Shipper
SILESIA GERHARD HANKE GMBH & CO KG
AM ALTEN BACH 20-24
41470 NEUSS
DE120695665

B/L No.
ALM252948



SACO SHIPPING LINE LTD

Consigned to order of
SILESIA DE MEXICO S.DE R.L. DE C.V.
AV. DEL CARMEN NO. 276, INTERIOR 7
PARQ.IND. GRUNPARK LA LLAVE 2,
COLONIA EX EJIDO LOS RANCHITOS
45618 TLAQUEPAQUE.JALISCO / MEXICO*

Notify Party and address
SILESIA DE MEXICO S.DE R.L. DE C.V.
AV. DEL CARMEN NO. 276, INTERIOR 7
PARQ.IND. GRUNPARK LA LLAVE 2,
COLONIA EX EJIDO LOS RANCHITOS
45618 TLAQUEPAQUE.JALISCO / MEXICO*

SACO SHIPPING LINE LIMITED

44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526705

Copy

		Place of receipt		
		BREMEN CFS		
Ocean vessel			Port of loading	
AL MANAMAH			HAMBURG	
Port of discharge	Place of delivery	Freight payable	Number of original Bills of Lading	
ALTAMIRA	ALTAMIRA CFS	BREMEN	0/ZERO	
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg. Measurement, m ³

CARGO DETAILS AS PER ATTACHED STATEMENT

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA,C.P.06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
SILESIA 4500236742 80963858 4500236739 80963862 * E-MAIL :GUILLERMO.SOLIS@SIL ESIA.COM RFC:SME991101PA6	1 PALLET	10 CAJAS SIL-A-GLASS AROMA POPCORN 10 CAJAS SIL-A-GLASS TYPE FLAN FLAVOUR 1 CAJA SIL-A-GLASS AROMA FRAMBUESA (SFC) 7 CAJAS SIL-A-GLASS AROMA FRAMBUESA (SFC) . HS-CODE: 33021090		583,100	1,210
STOWED INTO CONTAINER NO.: NYKU4710376				SEAL : WWA010179041	
TOTAL	1 PALLET			583,100 KGS	1,210 CBM

Shipper
NGL NAVIGATOR GLOBAL LOGISTICS GMBH
FELIX-WANKEL-STRASSE 3
STUHR NI 28816 GERMANY

EORI+DE6702740

Consigned to order of
NGL NAVIGATOR GLOBAL LOGISTICS S. DE R.L
DE C.V.
CALZADA ZAVALITA 1306 SANTA CRUZ
BUENAVISTA
PUEBLA PUE 72150 MEXICO
+522225036510
SEA@NGL-MEXICO.COM / RFC+NNG201012KD4
Notify Party and address

B/L No.
ALM252949 - B



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
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INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526303

Copy

		Place of receipt BREMEN CFS		
Ocean vessel AL MANAMAH	Port of loading HAMBURG, GERMANY			
Port of discharge ALTAMIRA, MEXICO	Place of delivery ALTAMIRA, MEXICO CFS	Freight payable BREMEN	Number of original Bills of Lading 0/ZERO	
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg. Measurement, m ³
CARGO DETAILS AS PER ATTACHED STATEMENT				

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA,C.P.06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
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One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
PO LIGHTING MEXICO S. DE R.L. DE C.V. DN 2910060169 STOWED INTO CONTAINER NO.: TCLU9655054	4 PALLETS	MOTOR CAR ACCESSORIES HS-CODE: 830160		626,560	4,070
				SEAL : WWA01-0221445	
PO LIGHTING MEXICO S. DE R.L. DE C.V. 3884798 STOWED INTO CONTAINER NO.: TCLU9655054	1 PALLET	MOTOR CAR ACCESSORIES HS-CODE: 851290		389,000	1,411
				SEAL : WWA01-0221445	
PO LIGHTING MEXICO S. DE R.L. DE C.V. DN: 94398050 + 94398051 STOWED INTO CONTAINER NO.: TCLU9655054	2 PACKAGES	MOTOR CAR ACCESSORIES HS-CODE: 731816		43,670	0,145
				SEAL : WWA01-0221445	
PO LIGHTING MX DN 80005501	3 PALLETS	MOTOR CAR ACCESSORIES HS-CODE: 851290		500,000	4,118
STOWED INTO CONTAINER NO.: NYKU4710376				SEAL : WWA010179041	
TOTAL		10 PACKAGES		1559,230 KGS	9,744 CBM

- B

Shipper
WICKE GMBH + CO. KG
ELBERFELDER STR. 109
45549 SPROCKHOEVEL
GERMANY

B/L No.
ALM252950



SACO SHIPPING LINE LTD

Consigned to order of
HYSTER-YALE MEXICO, S.A. DE C.V.
INDUSTRIA AUTOMOTRIZ # 3090 C
P25900
PARQUE INDUSTRIAL RAMOS ARIZPE,
RAMOS ARIZP, COA
MEXICO

Notify Party and address
GRUPO CARGOQUIN SA DE CV
RODOLFO VALENCIA PRIETO
PATENTE: 3395
TAX ID: VAPR6111244Y2
LIC. KARLA LOZANO
TEL: (83) 3385 7090

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
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LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526706

Copy

		Place of receipt BREMEN CFS	
Ocean vessel AL MANAMAH		Port of loading HAMBURG	
Port of discharge ALTAMIRA	Place of delivery ALTAMIRA CFS		Number of original Bills of Lading 0/ZERO
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain
HYSTER-YALE MEXICO DELIVERY ADDRESS: ALTAMIRA, TAMP PORT HYG MEXICO Y/O OSCAR SERAFIN PEREZ COL. UNIDAD NACIONAL TMS 89410 ALTAMIRA MEXICO STOWED INTO CONTAINER NO.: NYKU4710376	1 PALLET	PARTS FOR ELECTRIC FORK LIFTS HS CODE 84312000	Gross weight, kg. 458,000 Measurement, m ³ 0,538

SEAL : WWA010179041

TOTAL **1 PALLET** **458,000 KGS** **0,538 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA,C.P.06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
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One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Shipper

MULTI FREIGHT SOLUTIONS GMBH
LLOYDSTRASSE 1
D- 28217 BREMEN
VAT: DE263948690
TEL: +49 421 33021335

B/L No.
ALM252959



SACO SHIPPING LINE LTD

Consigned to order of

AFS TRANSPORTE Y LOGISTICA SC
REFORMA #520-B, C.P. 66600
CENTRO APODACA, NUEVO LEON
TAX ID ATL090504IH6
CONTACTO: CLAUDIA VALDIVIA
PH. 81 2661 0773

Notify Party and address

SAME AS CNEE
CLAUDIA.VALDIVIA@AFSFORWARDING.COM

SACO SHIPPING LINE LIMITED

44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526707

Copy

		Place of receipt HAMBURG CFS	
Ocean vessel AL MANAMAH		Port of loading HAMBURG	
Port of discharge ALTAMIRA		Place of delivery ALTAMIRA CFS	Freight payable BREMEN
			Number of original Bills of Lading 0/ZERO
Marks and Nos. GRUPO CABEZUT SA DE CV AFS REF: STOWED INTO CONT: STOWED INTO CONTAINER NO.: NYKU4710376	Quantity of Goods 1 PALLET	Description of Goods SINGLE MACHINE HS CODE: 84794000	Said to contain Gross weight, kg. 2800,000 Measurement, m ³ 6,279

SEAL : WWA010179041

TOTAL **1 PALLET** **2800,000 KGS** **6,279 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA, C.P. 06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
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IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Shipper
STRECK TRANSPORTGES. MBH
BLANKREUTESTRASSE 6
79108 FREIBURG
GERMANY

B/L No.
ALM252987



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

4/06/BRE/526702

Copy

Consigned to order of
HENCO GLOBAL S.A. DE C.V.
CALLE ROBLE # 668-A COLONIA URDIALES
C.P. 64430 MONTERREY NUEVO LEON
RFC : HGL980417J43
ATN: FH@HENCO.COM.MX

Notify Party and address
HENCO GLOBAL S.A. DE C.V.
CALLE ROBLE # 668-A COLONIA URDIALES
C.P. 64430 MONTERREY NUEVO LEON
RFC : HGL980417J43
ATN: FH@HENCO.COM.MX

		Place of receipt HAMBURG CFS			
Ocean vessel AL MANAMAH			Port of loading HAMBURG		
Port of discharge ALTAMIRA			Place of delivery ALTAMIRA CFS	Freight payable HAMBURG	Number of original Bills of Lading 0/ZERO
Marks and Nos. RAYMOND MEXICO 94399803	Quantity of Goods 1 PACKAGE	Description of Goods = 1 PALLET FASTENERS RAYMOND LOERRACH GERMANY		Said to contain	Gross weight, kg. 81,490 Measurement, m ³ 0,354

STOWED INTO CONTAINER NO.: NYKU4710376

SEAL : WWA010179041

TOTAL **1 PACKAGE** **81,490 KGS** **0,354 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL:005255146915, FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

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- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
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One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Shipper
STRECK TRANSPORTGES. MBH
BLANKREUTESTRASSE 6
79108 FREIBURG
GERMANY

B/L No.
ALM252988



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

4/06/BRE/526703

Copy

Consigned to order of
HENCO GLOBAL S.A. DE C.V.
CALLE ROBLE # 668-A COLONIA URDIALES
C.P. 64430 MONTERREY NUEVO LEON
RFC : HGL980417J43
ATN: FH@HENCO.COM.MX

Notify Party and address
HENCO GLOBAL S.A. DE C.V.
CALLE ROBLE # 668-A COLONIA URDIALES
C.P. 64430 MONTERREY NUEVO LEON
RFC : HGL980417J43
ATN: FH@HENCO.COM.MX

		Place of receipt			
		HAMBURG CFS			
Ocean vessel			Port of loading		
AL MANAMAH			HAMBURG		
Port of discharge			Place of delivery	Freight payable	Number of original Bills of Lading
ALTAMIRA			ALTAMIRA CFS	HAMBURG	0/ZERO
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
RAYMOND	7 PACKAGES	7 CARTONS		33,250	0,059
MEXICO		FASTENERS			
94388602		RAYMOND			
		GRENOBLE			
		FRANCE			

STOWED INTO CONTAINER NO.: NYKU4710376

SEAL : WWA010179041

TOTAL **7 PACKAGES** **33,250 KGS** **0,059 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL:005255146915, FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Shipper
APC LOGISTICS GERMANY
HALSKESTR. 32
40880 RATINGEN
GERMANY
TAX-ID:DE324954295

B/L No.
ALM252997



SACO SHIPPING LINE LTD

Consigned to order of
EUROPARTNERS MEXICO, S.A. DE C.V.
TELS: (52)(81) 82202630
AV. REVOLUCION 649
COLONIA JARDIN ESPANOL MONTERREY
NUEVO LEON MEXICO, C.P. 64820
RFC: EME020824U4A

Notify Party and address
SAME AS CONSIGNEE
E-MAIL:ANGEL.PEREZ@XPDGLOBAL.COM

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526710

Copy

		Place of receipt BREMEN CFS	
Ocean vessel AL MANAMAH		Port of loading HAMBURG	
Port of discharge ALTAMIRA		Place of delivery ALTAMIRA CFS	Freight payable BREMEN
			Number of original Bills of Lading 0/ZERO
Marks and Nos. VKI 10017226	Quantity of Goods 1 PALLET	Description of Goods PUMP COVER HS-CODE: 84139100	Gross weight, kg. 342,800
			Measurement, m ³ 0,634
STOWED INTO CONTAINER NO.: NYKU4710376			SEAL : WWA010179041

TOTAL	1 PALLET	342,800 KGS	0,634 CBM
--------------	-----------------	--------------------	------------------

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA, C.P. 06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

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IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Shipper
ALPHA TRANS AS AGENT OF
BLUE ARROW CONTAINER LINE LTD.
RM 907, 9/F., CHEVALIER COMMERCIAL
CENTER, 8 WANGHOI ROAD
KOWLOON BAY, KOWLOON, HONG KONG

B/L No.
ALM253002



SACO SHIPPING LINE LTD

Consigned to order of
CARGO Y SERVICIOS INTERNACIONALES,
S.A. DE C.V.
RCF CSI010716Q89
CALLE NORTE 176 NR. 436
COL. PENSADOR MEXICANO
15510 CIUDAD DE MEXICO, CMX, MEXICO

Notify Party and address
SAME AS CONSIGNEE
RFC: CSI 010716 Q89
PHONE: 52 55 26432100

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526712

Copy

		Place of receipt ERBACH	
Ocean vessel AL MANAMAH		Port of loading HAMBURG	
Port of discharge ALTAMIRA	Place of delivery ALTAMIRA CFS		Number of original Bills of Lading 0/ZERO
Marks and Nos. INV. 152407562, 152407563 142407655- 12402193/ 142407656 -12402194 PLASTIVALOIRE MEXICO SA DE CV STOWED INTO CONTAINER NO.: NYKU4710376	Quantity of Goods 1 PACKAGE	Description of Goods PLASTIC PARTS HS CODE: 39263000, 39269097	Said to contain Gross weight, kg. 66,000 Measurement, m ³ 0,384

SEAL : WWA010179041

TOTAL **1 PACKAGE** **66,000 KGS** **0,384 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA,C.P.06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

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IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Shipper
LINKINPARTNER EUROPE GMBH
HAMMERBROOKSTR. 90
20097 GERMANY

B/L No.
ALM253008



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

4/06/BRE/526704

Copy

Consigned to order of
EUROPARTNERS MEXICO S.A.DE C.V.
COLONIA JARDIN ESPANOL MONTERREY
AVENIDA REVOLUCION 649
64820 MONTERREY, NLE
MEXICO TAX ID:EME020824U4A

Notify Party and address
EUROPARTNERS MEXICO S.A.DE C.V.
COLONIA JARDIN ESPANOL MONTERREY
AVENIDA REVOLUCION 649
64820 MONTERREY, NLE
MEXICO TAX ID:EME020824U4A

		Place of receipt HAMBURG CFS			
Ocean vessel AL MANAMAH		Port of loading HAMBURG			
Port of discharge ALTAMIRA		Place of delivery ALTAMIRA CFS			
		Freight payable ALTAMIRA			
		Number of original Bills of Lading 0/ZERO			
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
ARAUCO INDUSTRIA DE MEXICO SA DE CV RFC: MSM010823770 CARRETERA PANAMER ICANA KM 959 S/N JOSE MARIA MORE LOS Y PAVON (LA TINAJA) 34390 DURANGO, DU RANGO MEXICO 3091628 STOWED INTO CONTAINER NO.: NYKU4710376	8 IBCS	DEUROWOOD KS-N, MA30, FA, AD10 INVOICE: 30600000059 HS CODE: 382499, 340290, 340399		8630,000	11,232
			SEAL : WWA010179041		

SEAL : WWA010179041

TOTAL **8 IBCS** **8630,000 KGS** **11,232 CBM**

FREIGHT COLLECT - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA,C.P. 06700 MEXICO D.F.
TEL:005255146915,FAX:005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
HAMBURG 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

MULTI MODAL DANGEROUS GOODS FORM

This form may be used as a dangerous goods declaration as it meets the requirements of SOLAS 74, Chapter VII, regulation 4;

MARPOL 73/78, Annex III, regulation 4

Shipper/Consignor/Sender Symrise AG Muehlenfeldstrasse 1 37603 Holzminden Germany	Page 1 of 1 Pages		Freight Forwarder's reference 240613170274	
Consignee SYMRISE S DE RL DE CV Y/O AGENTE ADUANAL DE AMERICANA (SYM-750430-R87) ALTAMIRA TAMPICO GUADALUPE ALONSO AV. RIO TAMESI KM 0+700	Carrier Saco Shipping Line, Limassol			
CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described below have been packed/loaded into the container/vehicle identified below in accordance with the applicable provisions. MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING Name/status, company Place and Date: Signature of packer	Vessel Al Manamah (006W) Port of loading Hamburg Port of discharge Altamira SHIPPER'S DECLARATION I hereby declare that the contents of this consignment are fully and accurately described below by the proper shipping name, and are classified, packaged, marked and labelled/placarded and are in all respects in proper condition for transport according to the applicable international and national government regulations. Name/status, company Lexzau, Scharbau on behalf of Symrise, Holzminden Place and Date: Hamburg / Bremen 29.05.2024 <i>T. Liberoudis T. Glaubke</i> Signature on behalf of shipper Thomas Liberoudis / Timo Glaubke			
No.	Number & kind of packages	Description of goods	Gross mass	
	1) 2 steel drums UN 1A1 UN 1760 CORROSIVE LIQUID, N.O.S. (7-METHYL-2H-BENZO-1,5-DIOXEPIN-3(4H)-ONE (CALONE), 1-METHYL-4- (4-METHYL-3-PENTENYL)CYCLOHEX-3-ENE-1-CARBA LDEHYDE, (1S, 2S)-2- (2-METHYL-2-PROPANYL)CYCLOHEXYL ACETATE)), 8, II, (+75,0°C c.c.), MARINE POLLUTANT, IMDG-CODE SEGREGATION GROUP 1-Acids, EmS: F-A,S-B Emergency Contact: Symrise AG via GBK/Infotrac ID 101844 24-hours no. Europe: GBK +49-6132-9829021 toll free: Infotrac +1-800-535-5053 Intl.: Infotrac +1-352-323-3500 Cargo gross/net weight: 57,800kg / 50,000kg	Gross weight:	57,800 kg	

Shipper
LEXZAU, SCHARBAU GMBH & CO. KG
KAP-HORN-STR. 18, 28237 BREMEN,
GERMANY, TAX ID: DE 114624125

B/L No.
ALM253009



SACO SHIPPING LINE LTD

Consigned to order of
LESCHACO MEXICANA, S.A. DE C.V.
BLVD. MANUEL AVILA CAMACHO
NO. 88-PISO 8
COL. LOMAS DE CHAPULTEPEC
11000 MEXICO, D.F., MEXICO
TEL.: +52(55)59550000 **)

Notify Party and address
LESCHACO MEXICANA, S.A. DE C.V.
BLVD. MANUEL AVILA CAMACHO
NO. 88-PISO 8
COL. LOMAS DE CHAPULTEPEC
11000 MEXICO, D.F., MEXICO
TEL.: +52(55)59550000 **)

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526714

Copy

		Place of receipt		
		CFS BREMEN		
Ocean vessel			Port of loading	
AL MANAMAH			HAMBURG	
Port of discharge	Place of delivery	Freight payable	Number of original Bills of Lading	
ALTAMIRA	CFS ALTAMIRA	BREMEN	0/ZERO	
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg. Measurement, m ³
CARGO DETAILS AS PER ATTACHED STATEMENT				

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA, C.P. 06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

The Carrier in accordance with the provisions contained on this side and on the reverse side of this document;

- undertakes to perform or to procure the performance of the entire transport from the place at which the Goods are taken in charge to the place designated for delivery in this document, and
- assumes liability as prescribed in this document for such transport.

One of the Bills of Lading to be surrendered duly endorsed in exchange for the Goods or delivery order.

IN WITNESS whereof three (3) original Bills of Lading have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.

Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
33512312/01 4500941644 SYMRISE S DE R.L. DE C.V. 4500941644 SAN NICOLAS DE LOS GARZA, N.L. VIA TAMPICO	2 DRUMS	FRAGRANCE COMPOUND EMBRUNS BASE MPF 2021 HS CODE: 33029090 UN 1760, CORROSIVE LIQUID, N.O.S. (7-METHYL-2H-BENZO- 1,5-DIOXEPIN-3(4H)-ONE (CALONE), 1-METHYL-4-(4-ME THYL-3-PENTENYL)CYCLOHEX-3 -ENE-1-CARBALDEHYDE, (1S, 2S)-2-(2-METHYL-2-PROPANYL)CYCLOHEXYL ACETATE)), 8, II, (+75.00 C C.C.), MARINE POLLUTANT, IMDG-CODE SEGREGATION GROUP 1-ACIDS **) RFC: LME980116R15 NVOCC SELF FILER - SCAC CODE: ALRB		57,800	0,085
STOWED INTO CONTAINER NO.: NYKU4710376				SEAL : WWA010179041	
TOTAL	2 DRUMS			57,800 KGS	0,085 CBM

Shipper
ALPHA TRANS AS AGENT OF
BLUE ARROW CONTAINER LINE LTD.
RM 907, 9/F., CHEVALIER COMMERCIAL
CENTER, 8 WANG HOI ROAD
KOWLOON BAY, KOWLOON, HONG KONG

B/L No.
ALM253019



SACO SHIPPING LINE LTD

Consigned to order of
CARGO Y SERVICIOS INTERNACIONALES,
S.A. DE C.V.
RCF CSI010716Q89
CALLE NORTE 176 NR. 436
COL. PENSADOR MEXICANO
15510 CIUDAD DE MEXICO, CMX, MEXICO

Notify Party and address
SAME AS CONSIGNEE
RFC: CSI 010716 Q89
PHONE: 52 55 26432100

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

ALL COSTS, CHARGES,
LIABILITIES AND DELAYS
RESULTING FROM EMERGENCY
QUARANTINE FOR WOOD AND
WOODEN PACKAGING OR FROM
INSUFFICIENT OR IMPROPER
LABELLING OF NON-WOODEN
PACKAGING ARE FOR
CUSTOMER'S ACCOUNT

4/06/BRE/526716

Copy

		Place of receipt HAMBURG CFS	
Ocean vessel AL MANAMAH		Port of loading HAMBURG	
Port of discharge ALTAMIRA	Place of delivery ALTAMIRA CFS		Freight payable BREMEN
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. 31424060040 PLASTIVALOIRE, MEXICO SAN LUIS POTOSI STOWED INTO CONTAINER NO.: NYKU4710376	Quantity of Goods 2 PACKAGES	Description of Goods AUTOMOTIVE PARTS HS CODE: 60063300	Said to contain Gross weight, kg. 316,800 Measurement, m ³ 2,721

SEAL : WWA010179041

TOTAL **2 PACKAGES** **316,800 KGS** **2,721 CBM**

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVIC. INTERNACION. DE COMERCIO
COLIMA 114 DESPACHO 201
COLONIA ROMA, C.P. 06700, MEXICO DF
PH: 514-69 15 FX: 208-79-8
INT-961206-ES7

Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

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RECEIVED for shipment the above mentioned Goods in apparent good order and condition as far as could be ascertained by exercising reasonable means of checking or as stated above.

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Place and date of issue
BREMEN 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Shipper
LINKINPARTNER EUROPE GMBH
HAMMERBROOKSTR. 90,
20097 HAMBURG
GERMANY

B/L No.
ALM253068



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED
44, Kroytser
PANORAMA Residence
Block A, Flat 01
3120 Limassol CYPRUS
FMC Organization No. 025875

4/06/BRE/526705

Copy

Consigned to order of
EUROPARTNERS MEXICO S.A. DE C.V.
AVENIDA REVOLUCION #649
COLONIA JARDIN ESPANOL
MONTERREY, NUEVO LEON
MEXICO 64820

Notify Party and address
EUROPARTNERS MEXICO S.A. DE C.V.
TAX ID: EME020824U4A
PH: +52(81)8220 2630
FX: +52(81)8342 8310

		Place of receipt				
		HAMBURG CFS				
Ocean vessel	Port of loading					
AL MANAMAH	HAMBURG					
Port of discharge	Place of delivery	Freight payable	Number of original Bills of Lading			
ALTAMIRA	ALTAMIRA CFS	ALTAMIRA	0/ZERO			

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
133859 / HANN182	2 PACKAGES	MACHINERY FOR THE INDUSTRIAL PREPAR ATION OF MEAT OR POULTRY, PARTS OF MACHINERY FOR THE INDUSTRI AL PREPARATION OR MANUFACTURE OF FOOD OR DRINK. HS-CODE: 843890 INVOICE: 10126211		1138,000	5,224

STOWED INTO CONTAINER NO.: NYKU4710376

SEAL : WWA010179041

TOTAL **2 PACKAGES** **1138,000 KGS** **5,224 CBM**

FREIGHT COLLECT - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
SERVICIOS INTERNACIONALS DE
COMERCIO, COLIMA 114 DESPACHO 201,
COLONIA ROMA, C.P. 06700 MEXICO D.F.
TEL: 005255146915, FAX: 005252087989
DANIELA.BORJA@INTERTEAM.COM.MX

Declared Value of the Goods (see clause 12)
US\$
Ad valorem freight paid:

Note:

The Merchant's attention is called to the fact that according to Clauses 11 to 13 of this Bill of Lading, the liability of the Carrier is, in most cases, limited in respect of loss of or damage to the goods and delay

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Place and date of issue
HAMBURG 15.06.2024

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Bürgermeister-Smidt-Str. 128
28195 Bremen
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL

