

Ships Bag for MB/L 721581291

Container: MRSU5588444	1
PL SHEET MRSU 558 844 4.pdf	1
00346 MANIFEST 0949165.pdf	2
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HB/L: 27748536	10
TYP: Externes B/L	10
VER285096 HBL 138.pdf	10
HB/L: 29122277	11
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HB/L: GCHAM26070400	14
TYP: Externes B/L	14
VER285171 HBL 67.pdf	14
HB/L: GCHAM26070495	16
TYP: Externes B/L	16
VER285239 HBL 65.pdf	16
HB/L: VER285180	18
TYP: B/L	18
SACO Shipping Line Ltd. B/L VER285180 VER28518	18
HB/L: VER285186	19
TYP: B/L	19
SACO Shipping Line Ltd. B/L VER285186 VER28518	19
HB/L: VER285188	20
TYP: B/L	20
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SACO Shipping Line Ltd. B/L VER285227 VER28522	97
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TYP: B/L	98
SACO Shipping Line Ltd. B/L VER285232 VER28523	98
HB/L: VER285238	99
TYP: B/L	99
SACO Shipping Line Ltd. B/L VER285238 VER28523	99
HB/L: VER580693	100
TYP: B/L	100
SACO Shipping Line Ltd. B/L VER580693 VER58069	100

valid from March 1st 2026

Container:
MRSU 558 844-4



Agreed special PLC :

SHIPPER	Consignee	Doc fee	Unstuffing	Admin	Tranmiss.	Port Transfer
Würth Hansa Gateway	Knipping/Globaltranz all	USD 50,- USD 70,-	USD 28,-w/m USD 33,-w/m			

Manifest

Page: 1

Container-No.: MRSU5588444 40' HIGH CUBE CONTAINER Seal-No.: B193312

Vessel: SAC1656 / GSL TEGEA

ETS:

Master-B/L.: 721581291

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
27748536	PO 929304241 :	1	PIECE	S.T.C. PARTS FOR DAIRY EQUIPMENT HS 84195080 NAC: TETRA PAK	1826.000	5.240
29122277	29122277 METSO OUTOTEC MEXICO S.A. DE C.V SALAMANCA OTE. ESQ. CALAYA S/N CD INDUSTRIAL ; 36541 IRAPUATO. ORDER NO-S: 7500276077, 7500294943, 7500302154	2	PALLETS	S.T.C. METSO INDUSTRIAL PRODUCTS RUBBER SEALER HS CODE: 40169952 NAC: LOCAL	660.000	1.098
GCHAM260	GASTRONOMIA PREFERENTE SA DE CV. MEXICO	5	PALLETS	S.T.C. GREEN TEA HS CODE: 09021000	908.000	10.022

Manifest

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Container-No.: MRSU5588444 40' HIGH CUBE CONTAINER Seal-No.: B193312

Vessel: SAC1656 / GSL TEGEA

ETS:

Master-B/L.: 721581291

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
GCHAM260	ADLER PELZER GROUP HPP SYSTEMS DE MEXICO S.A. DE C.V. KM 48 CARRETERA FEDERAL MEXICO PACHUCA, LOS REYES ACUZAC-TECAMAC 55755 ESTADO DE MEXICO MEXIKO 1911811 LOS REYES ACUZAC	2	PALLETS	S.T.C. OFFICE PRODUCTS HS CODE: 40169957	358.000	1.463
VER285180	856763984 856763931 856760678 856760653 856760532 856739148 856739005	7	CRATES	HELICOPTER PARTS HS-CODE: 88073000, 84833080, 84833032	1384.000	6.562
VER285180	1352383 / 307060	5	CASES	PRINTING PAPER AND CONSUMABLES FOR SHEETFEED-OFFSET- MACHINE RA164-6+L SAPC ALV2 S/N: 381429 INVOICE: 1352383, 3961781500 HS-CODE: 48101900, 11081300, 11081990, 19019099, 32141010, 32151900, 35061000, 38140090, 38249992, 38249996, 39199080, 39233010, 39249000, 39269097, 40082190, 40151900, 48239085	3854.000	8.761

Manifest

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Container-No.: MRSU5588444 40' HIGH CUBE CONTAINER Seal-No.: B193312

Vessel: SAC1656 / GSL TEGEA

ETS:

Master-B/L.: 721581291

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
VER285186	APTIV SERVICES US LLC RAMOS ARIZPE MEXICO MX REF 85072822	3	PALLETS	SEALS FOR AUTOMOTIVE AS PER INVOICE#85072822 HTS:392690 **HSCODE: 392690**	449.800	2.774
VER285193	GRUPO ABC DE MEXI CO SA DE CV AV. NORTE CUATRO DN: 82148744	1	PALLET	HC.AIR 55 FKM HP KRT HS-CODE: 730729 INVOICE: 40047490	246.000	1.507
VER285209	SISTEMAS MECATRONICOS INTICA S.A.P.I. DE C.V. PUERTO INTERIOR, SILAO, GUANAJUATO, MEXICO DELIVERY NOTE NO. 80024032 + 80024035 SHIPPER'S LOAD, STOW, WEIGH AND COUNT	2	PACKAGES	S.T.C. / S.L.A.C. 2 CARTONS STOWED ON 2 PALLETS WITH CABLE/CONNECOTR + SEALING BATCH: 0000017905, 0000017911 HS CODE: 85444290	90.000	1.067
VER285227	83172993/83172994	3	PALLETS	WOODEN FLOOR AND FILLER AND OIL HS-CODE: 440900	1201.000	3.340
VER285232	TOLUCA PLANTA DE BLINDADOS S.A. DE CV RO:661950	1	PALLET	INFORMATION SIGNS: BMW LOGO, MINI L OGO NON STACKABLE HS: 83100000, 94056180, 94059900	110.000	2.171

Manifest

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Container-No.: MRSU5588444 40' HIGH CUBE CONTAINER Seal-No.: B193312

Vessel: SAC1656 / GSL TEGEA

ETS:

Master-B/L.: 721581291

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
VER285238	VER285238 SANBORN HERMANOS MEXICO	4	PALLETS	BOOKS HS CODE: 4901 * TEL: +52 55 5514 6097 EMAIL: OPERACIONES@BON	1628.525	4.333
VER580693	DKSONPNA 3100001490 221201 1687	1	PALLET	CONTROL PANEL **HSCODE: 853710**	218.000	1.091

Total

**Quantity
37**

**Grossweight Measurement
12.933.325 49.429**

 MAERSK		NON-NEGOTIABLE WAYBILL		SCAC MAEU B/L No. 721581291
Shipper (As principal, where "care of", "c/o", or other variants used.) SACO SHIPPING GMBH AS AGENT OF SACO SHIPPING LINE LIMITED WOLLKAEMMERSTR. 1 D-21107 HAMBURG / GERMANY TAX-ID. DE-118597456		Booking No. 721581291		
Consignee (Negotiable only if consigned "to order", "to order of" a named Person or "to order of bearer". As principal, where "care of", "c/o", or other variants used.) INTERTEAM, S.A. DE C.V. COLIMA 114, INT 201 COLONIA ROMA, C.P. 06700 MEXICO CITY. TEL: +525555149897 TAX ID: INT961206ES7 CTC: MARCELA GODINEZ		Export references 607HAM1690GYGR		
Notify Party (see clause 22) SAME AS CONSIGNEE EMAIL: IMPORT@INTERTEAM.COM.MX		Svc Contract 299024568		
This contract is subject to the terms, conditions and exceptions, including the law & jurisdiction clause and limitation of liability & declared value clauses, of the current Maersk Bill of Lading (available from the Carrier, its agents and at terms.maersk.com/carriage), which are applicable with logical amendments (mutatis mutandis). To the extent necessary to enable the Consignee to sue and to be sued under this contract, the Shipper on entering into this contract does so on his own behalf and as agent for and on behalf of the Consignee and warrants that he has the authority to do so. The shipper shall be entitled to change the Consignee at any time before delivery of the goods provided he gives the Carrier reasonable notice in writing. Delivery will be made to the Consignee or his authorised agent on production of reasonable proof of identity (and, in the case of an agent, reasonable proof of authority) without production of this waybill. The Carrier shall be under no liability whatsoever for misdelivery unless caused by the Carrier's negligence.				
Onward inland routing (Not part of Carriage as defined in clause 1. For account and risk of Merchant)				
Vessel GSL TEGEA	Voyage No. 630W	Place of Receipt. Applicable only when document used as Multimodal Waybill Hamburg		
Port of Loading Bremerhaven	Port of Discharge Veracruz *	Place of Delivery. Applicable only when document used as Multimodal Transport B/L. (see clause 1)		

PARTICULARS FURNISHED BY SHIPPER

Kind of Packages; Description of goods; Marks and Numbers; Container No./Seal No. 1 Container Said to Contain 37 PACKAGE MRSU 558844-4 40/DRY 9'6 1 PIECE GROSS WEIGHT: 1826.000 KGS MEASUREMENT: 5.240 CBM S.T.C. PARTS FOR DAIRY EQUIPMENT HS 84195080 NAC: TETRA PAK 2 PALLETS GROSS WEIGHT: 660.000 KGS MEASUREMENT: 1.098 CBM S.T.C. METSO INDUSTRIAL PRODUCTS RUBBER SEALER HS CODE: 40169952 NAC: LOCAL 5 PALLETS GROSS WEIGHT: 908.000 KGS MEASUREMENT: 10.022 CBM S.T.C. GREEN TEA Below freight details will not be part of Original Bill of Lading unless requested by customer Above particulars as declared by Shipper, but without responsibility of or representation by Carrier.	Weight 12933.325 KGS	Measurement 49.429 CBM
--	-------------------------	---------------------------

Freight & Charges		Rate	Unit	Currency	Prepaid	Collect
Charges Name Basic Ocean Freight Container Protect Essential Documentation fee - Destination	Prepaid/Collect Prepaid Collect Collect	Invoice Party SACO SHIPPING GMBH	Customer Code 11314343	Collection Business Unit Maersk Deutschland (Hamburg)		
Carrier's Receipt. Total number of containers or packages received by Carrier. 1 container	Place of Issue of Waybill Mumbai		Shipped, as far as ascertained by reasonable means of checking, 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 opposite entitled "Carrier's Receipt"			
Shipped on Board Date (Local Time)	Date Issue of Waybill					
Declared Value Charges (see clause 7.3 of the Maersk Bill of Lading) for Declared Value of US\$						
Signed for the Carrier Maersk A/S						
This transport document has one or more numbered pages						

As Agent(s)

HS CODE: 09021000
 7 CRATES GROSS WEIGHT: 1384.000 KGS MEASUREMENT: 6.562 CBM
 HELICOPTER PARTS
 HS-CODE: 88073000,
 84833080, 84833032
 5 CASES GROSS WEIGHT: 3854.000 KGS MEASUREMENT: 8.761 CBM
 PRINTING PAPER
 HS-CODE: 48101900
 3 PALLETS GROSS WEIGHT: 449.800 KGS MEASUREMENT: 2.774 CBM
 SEALS FOR AUTOMOTIVE AS
 PER
 INVOICE#85072822
 HTS:392690
 HSCODE: 392690
 1 PALLET GROSS WEIGHT: 246.000 KGS MEASUREMENT: 1.507 CBM
 HC.AIR 55 FKM HP KRT
 HS-CODE: 730729
 INVOICE: 40047490
 2 PACKAGES GROSS WEIGHT: 90.000 KGS MEASUREMENT: 1.067 CBM
 S.T.C. / S.L.A.C.
 2 CARTONS
 2 PALLETS WITH
 CABLE/CONNECOTR + SEALING
 BATCH: 0000017905,
 0000017911
 HS CODE: 85444290
 3 PALLETS GROSS WEIGHT: 1201.000 KGS MEASUREMENT: 3.340 CBM
 WOODEN FLOOR AND FILLER
 AND OIL
 HS-CODE: 440900
 1 PKG GROSS WEIGHT: 110.000 KGS MEASUREMENT: 2.171 CBM
 INFORMATION SIGNS: BMW
 LOGO, MINI L
 OGO
 NON STACKABLE

Freight & Charges		Rate	Unit	Currency	Prepaid	Collect
Charges Name	Prepaid/Collect	Invoice Party	Customer Code	Collection Business Unit		
Terminal Handling Service - Destination	Collect					
Emergency Bunker Surcharge	Prepaid	SACO SHIPPING GMBH	11314343	Maersk Deutschland (Hamburg)		
Export Intermodal Fuel Fee	Prepaid	SACO SHIPPING GMBH	11314343	Maersk Deutschland (Hamburg)		
Equipment Handling Import	Collect					
Emission Surcharge	Prepaid	SACO SHIPPING GMBH	11314343	Maersk Deutschland (Hamburg)		
Inland Haulage Export	Prepaid	SACO SHIPPING GMBH	11314343	Maersk Deutschland (Hamburg)		
Peak Season Surcharge	Prepaid	SACO SHIPPING GMBH	11314343	Maersk Deutschland (Hamburg)		
Value Protect Starter	Prepaid	SACO SHIPPING GMBH	11314343	Maersk Deutschland (Hamburg)		

SHIPPER'S LOAD, STOW, WEIGHT AND COUNT
FREIGHT PREPAID
SD/CY

Freight & Charges		Rate	Unit	Currency	Prepaid	Collect
Charges Name		Prepaid/Collect	Invoice Party		Customer Code	Collection Business Unit

EUROPEISKA GEMENSKAPEN

EXPORTFÖLJEDOKUMENT	Avsändare/Exportör (2) Alfa Laval Technologies AB Rudeboksvägen 1 226 55 Lund SE		Nr		TYP AV DEKLARATION (1) EX A Kod ASO (S32)		MRN  26SE0000IV0778BHA5	
	Blanketter (3) 1 1		Säk.dekl (S00)		Varuposter (5) 1		Antal kollin (6) 1	
	Mottagare (8) TETRA PAK S.A DE C.V Km 1 Carr Tepotzotl'an-Aurora 54715 Cuautitlan Izcalli MX		Nr		Referensnummer (7) LAV0676066 026-701954-01		Datum för utfärdande: 20260618 Tullkontor: SE092714	
	Kod betalningssätt för transportkostnader (S29) Y		Avs-/Expl Kod (15) a SE		Bestland Kod (17) a MX		Landkoder i ruttordning (S13)	
	Deklarant/Ombud (14) Alfa Laval Technologies AB Box 74 22100 Lund SE 1		Nr SE5560168642		Ombud för den person som inger sum.dekl. (14b) Svensson Lina, 0709 366812, lina.svensson@alfalaval.com		Nr	
	Transportmediets identitet vid avgången (18)				Bruttovikt (kg)(35) 1826			
	Transportsätt 1 vid gränsen (25)		Godsets förvaringsplats (30) JRAD		Förseglingsnummer (S28)			
	Utfartstullkontor (29) DE004851							
	Koli och varubeskrivning (31)		Märken och nummer - Containernummer - Antal och slag					

32 Varup.nr	Kollin, antal och slag, märken och nummer (31/1)			Varubeskrivning (31/2)		
Avsändare/Exportör (2)				Mottagare (8)		
Transportmediets identitet vid avgången (18)				Varukod (33)		
Unikt referensnummer för sändningen (7)				Summarisk deklaration/Tidigare handlingar (40)		
Bilagda handlingar/Certifikat och tillstånd (44/1)				Containernummer (31/3)		Förseglingsnummer (S28)
Särskilda upplysningar (44/2)				Förfarande (37)	Avs./exportland	Best. land (17a)
UNDG (44/4)		Kod betalningssätt för transportkostnader (S29)		Typ av deklaration (1)	Statistiskt värde (46)	Bruttovikt (kg) (35)
						Nettovikt (kg) (38)
1	1 delar NE Unpacked or unpackaged Alfa Laval Package Mark			Heat-exchange units (excl. those used with boilers and those made of fluoropolymers with inlet and outlet tube bores with inside diameters measuring <=3 cm)		
				84195080 00		
N380 026-701954-01 Y901 Not included Y160 Not included						
				1000		1826
				187716.86		1496

E KONTROLLERAT AV AVSÄNDNINGSG-/EXPORTTULLKONTORET				UTFARTSTULLKONTORETS KONTROLL (K)			
Resultat:				Ankomstdatum:			
Plomber:		Antal:		Kontroll av plomber:			
		märke:		Anmärkningar:			
Tidsfrist (datum):							

SHIPPER/EXPORTER (COMPLETE NAME AND ADDRESS) KUEHNE + NAGEL AS A. H. TAMMSAARE TEE 47 11316 TALLINN HARJU MAAKOND ESTONIA AGENT OF BLUE ANCHOR LINE		BOOKING NO. 29122277	BILL OF LADING NO. 29122277
		EXPORT REFERENCES 1075777173	
CONSIGNEE (NOT NEGOTIABLE UNLESS CONSIGNED TO ORDER) KUEHNE + NAGEL FORWARDING SA DE CV PROL. AV. CERRO GORDO COL. LAS QUINTAS 201 INT 103 37125 LEON GUANAJUATO AGENT OF BLUE ANCHOR LINE P:+52 (477)2408576 FELIPE.DELGADO@KUEHNE-NAGEL.COM		FORWARDING AGENT, F.M.C. NO KUEHNE & NAGEL AS CO CODE 10890101 PARNU MNT 102 C VAT CODE 101032854	
		POINT AND COUNTRY OF ORIGIN OF GOODS	
NOTIFY PARTY (COMPLETE NAME AND ADDRESS) KUEHNE + NAGEL FORWARDING SA DE CV PROL. AV. CERRO GORDO COL. LAS QUINTAS 201 INT 103 37125 LEON GUANAJUATO AGENT OF BLUE ANCHOR LINE P:+52 (477)2408576 FELIPE.DELGADO@KUEHNE-NAGEL.COM		FOR DELIVERY PLEASE APPLY TO INTERTEAM S.A. DE C.V. SERVICIOS INTERNACIONALES DE COMERCIO COLIMA 114 DESPACHO 201, 06700 MEXICO D.F.COLONIA ROMA, C.P. MEXICO PHONE: +52 (5555) 199 897	
PRE-CARRIAGE BY*	PLACE OF RECEIPT BY PRE-CARRIER* TALLINN	TRANSSHIPMENT PORT	
EXPORT CARRIER (VESSEL/VOY/FLAG) MAERSK DANUBE 629W	PORT OF LOADING HAMBURG	LOADING PIER/TERMINAL CFS / CFS	2607303019
PORT OF DISCHARGE VERACRUZ	PLACE OF DELIVERY BY ON CARRIER* VERACRUZ	NUMBER OF ORIGINALS 0/EXPRESS	

PARTICULARS FURNISHED BY SHIPPER				
MARKS & NOS/CONTAINER NOS	NO. OF PKGS	DESCRIPTION OF PACKAGES AND GOODS	GROSS WEIGHT	MEASUREMENT
29122277 METSO OUTOTEC MEXICO S.A. DE C.V SALAMANCA OTE. ESQ. CALAYA S/N CD INDUSTRIAL ; 36541 IRAPUATO. ORDER NO-S: 7500276077, 7500294943, 7500302154	2	PALLETS S.T.C. METSO INDUSTRIAL PRODUCTS RUBBER SEALER HS CODE: 40169952 NAC: LOCAL	1455.051 Lbs 660.000 Kgs	38.765 Cbf 1.098 Cbm

For notification purpose only

For notification purpose only

Page 1 of 2

Container: MISC1234567/MISC1234567

Size/Type: 53' Trailer

[illegible]

RECEIVED by Carrier, so far as can be reasonably ascertained, in external apparent good order and condition (unless otherwise stated herein) the Goods as specified above for carriage from the Place of Receipt or Port of Loading to the Port of Discharge or Place of Delivery, whichever is applicable. **Notwithstanding** any local customs or privileges to the contrary, **Merchant agrees on acceptance of contract or acceptance or notice of this Bill to be bound, and that the Goods and Services as evidenced herein are subject to, all terms of the Bill including but not limited to Defences (as defined), Indemnities, liabilities and obligations of the Merchant, and the Carrier, and the Carrier's Tariff, as if all signed by the Merchant.** Above particulars of the Goods and address details are as provided and as declared by Merchant and are stated without warranty, liability or responsibility as to correctness by Carrier. Where the Bill is non-negotiable and unless Merchant gives written notice of and Carrier has given written agreement to the contrary prior to Carrier's acceptance of the Goods, or if this is an Express Bill, then Carrier may give delivery to the Merchant or Merchant's agent, and the Merchant shall be deemed to have accepted the Goods and the Bill as presented to him, whether or not with and without the surrendering of any Original Bill. Where the Bill is negotiable (To order / or) in accordance with the terms of this Bill, one original Bill of Lading, duly endorsed, must be surrendered by the Merchant to the Carrier (together with payment of outstanding Freight and Charges) in exchange for the Goods or a receipt for the Goods. **Where the Bill is negotiable, the Merchant agrees to indemnify the Carrier for the full value of the Goods as stated above, all of this tenor and date, and where the Bill is negotiable, as received by this Bill one original Bill of Lading has been surrendered and all other Bills of Lading shall be void.**

DATED _____
AT _____ ON _____
BY _____

SHIPPER/EXPORTER (COMPLETE NAME AND ADDRESS) KUEHNE + NAGEL AS A. H. TAMMSAARE TEE 47 11316 TALLINN HARJU MAAKOND ESTONIA AGENT OF BLUE ANCHOR LINE		BOOKING NO. 29122277	BILL OF LADING NO. 29122277
CONSIGNEE (NOT NEGOTIABLE UNLESS CONSIGNED TO ORDER) KUEHNE + NAGEL FORWARDING SA DE CV PROL. AV. CERRO GORDO COL. LAS QUINTAS 201 INT 103 37125 LEON GUANAJUATO AGENT OF BLUE ANCHOR LINE P:+52 (477)2408576 FELIPE.DELGADO@KUEHNE-NAGEL.COM		EXPORT REFERENCES 1075777173	
NOTIFY PARTY (COMPLETE NAME AND ADDRESS) KUEHNE + NAGEL FORWARDING SA DE CV PROL. AV. CERRO GORDO COL. LAS QUINTAS 201 INT 103 37125 LEON GUANAJUATO AGENT OF BLUE ANCHOR LINE P:+52 (477)2408576 FELIPE.DELGADO@KUEHNE-NAGEL.COM		FORWARDING AGENT, F.M.C. NO KUEHNE & NAGEL AS CO CODE 10890101 PARNU MNT 102 C VAT CODE 101032854	
		POINT AND COUNTRY OF ORIGIN OF GOODS	
		FOR DELIVERY PLEASE APPLY TO INTERTEAM S.A. DE C.V. SERVICIOS INTERNACIONALES DE COMERCIO COLIMA 114 DESPACHO 201, 06700 MEXICO D.F. COLONIA ROMA, C.P. MEXICO PHONE: +52 (5555) 199 897	
PRE-CARRIAGE BY*	PLACE OF RECEIPT BY PRE-CARRIER*	TRANSHIPMENT PORT	
	TALLINN		
EXPORT CARRIER (VESSEL/VOY/FLAG) MAERSK DANUBE 629W	PORT OF LOADING HAMBURG	LOADING PIER/TERMINAL CFS / CFS	2607303019
PORT OF DISCHARGE VERACRUZ	PLACE OF DELIVERY BY ON CARRIER* VERACRUZ	NUMBER OF ORIGINALS 0/EXPRESS	

PARTICULARS FURNISHED BY SHIPPER				
MARKS & NOS/CONTAINER NOS	NO. OF PKGS	DESCRIPTION OF PACKAGES AND GOODS	GROSS WEIGHT	MEASUREMENT
		FREIGHT PREPAID Due to ongoing operational and regional constraints affecting logistics flows into the Middle East, shipments destined for this region may experience delays. Additionally, extra charges may apply depending on the final routing and service adjustments required. LCL - LCL DESTINATION CHARGES TO BE PAID BY THE CONSIGNEE		

For notification purpose only

Container: MISC1234567/MISC1234567

Size/Type: 53' Trailer

Page 2 of 2

Total:

1455.051 Lbs

660.000 Kgs

38.765 Cbf

1.098 Cbm

SHIPPERS DECLARED VALUE \$
SUBJECT TO EXTRA FREIGHT AS PER TARIFF AND CLAUSE 8 (3) OF THIS B/L

FREIGHT & CHARGES	BASIS	RATE	PREPAID	COLLECT
DO				
RECEIVED by Carrier, so far as can be reasonably ascertained, in external apparent good order and condition (unless otherwise stated herein) the Goods as			TOTAL	TOTAL

RECEIVED by Carrier, so far as can be reasonably ascertained, in external apparent good order and condition (unless otherwise stated herein) the Goods as specified above for carriage from the Place of Receipt or Port of Loading to the Port of Discharge or Place of Delivery, whichever is applicable. **Notwithstanding any local customs or privileges to the contrary, Merchant agrees on acceptance of contract or acceptance or notice of this Bill to be bound, and that the Goods and Services as evidenced herein are subject to, all terms of the Bill including but not limited to Defences (as defined), Indemnities, Liabilities, Limitations of Remedies, and the Carrier's Tariff, as if all signed by the Merchant.** Above particulars of the Goods and address details are as provided and as declared by Merchant and are stated without warranty, liability or responsibility as to correctness by Carrier. Where the Bill is non-negotiable and unless Merchant gives written notice of and Carrier has given written agreement to the contrary prior to Carrier's acceptance of a Bill of Lading, this Bill is an Express Bill, then Carrier may give delivery to the consignee or to the order of the consignee, notwithstanding any clause in the Bill to the contrary. Where the Bill is negotiable, Merchant may deliver the Bill, with and without the surrendering of any Original Bill. Where the Bill is negotiable (To Order / or) in accordance with the terms of this Bill, one original Bill of Lading, duly endorsed, must be surrendered by the Merchant to the Carrier (together with payment of outstanding Freight and Charges) in exchange for the Goods or a copy of the Bill of Lading. **Where the Bill is negotiable, the Bill of Lading shall be deemed to be surrendered to the Carrier at the time and place above, all of this tenor and date, and where required by this Bill, one original Bill of Lading has been surrendered, all other Bills of Lading shall be void.**

DATED AT TALLINN ON JUL 24, 2026
BY SHIPCO TRANSPORT AS CARRIER

Shipper J.T. Ronnefeldt KG Jan-Weber-Str. 2 27726 Wörpswede Germany		B/L No. GCHAM26070400	
Consigned to order of Gastronomia Preferente SA DE CV. RFC : GPR130214BD0 Polanco. Delegacion Miguel Hidalgo 11560 Ciudad de Mexico, MEX Mexico		 115, OMONIA AVENUE PAROUTIS BLDG., 3 rd Floor 3045 LIMASSOL	
Notify Party and address SEA CARGO LOGISTICS S.A. DE C.V. Calle Leibnitz no. 117, Oficina 401, Col. Anzures, Alcaldia Miguel Hidalgo, Ciudad de Mexico, C.P. 11590 TAX ID: SCL090414QE0			
Ocean Vessel MAERKS DANUBE	Voyage No. SAC1655	Port of Loading Bremerhaven	Place of Acceptance Bremen
Port of Discharge Veracruz	Place of Delivery Veracruz	Freight payable Veracruz	Number of original Bills of Lading E / Express B/L
Marks and Nos. Gastronomia Preferente SA DE CV. Mexico		Quantity and description of goods 5 Pallet(s) S.T.C. green tea HS Code: 09021000	Gross weight, kg 908kg Measurement, m ³ 10,070m ³

DRAFT

All particulars above declared by Merchant	
For delivery of cargo please apply to InterTEAM SA de CV Colima 114 Desp 201 Col. Roma 06700 Cuauhtemoc, MEX Mexico	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: a) 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 b) assumes liability as prescribed in this document for such transport. One of the Bills of Lading must be surrendered duly endorsed in exchange for the goods or delivery order. IN WITNESS whereof three (3) original Bs/L have been signed, if not otherwise stated above, one of which being accomplished the other(s) to be void.
	Place and date of issue Norderstedt / 2026-JUL-24
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.	Signed for the carrier  as agents of carrier G.C.S. Container Line Ltd.

1. Applicability

Notwithstanding the heading "Combined Transport", the provisions set out and referred to in this Bill of Lading shall also apply, if the transport as described in this Bill of Lading is performed by one mode of transport only.

2. Definitions

"Carrier" means the party on whose behalf this Bill of Lading has been signed. "Merchant" includes the Shipper, the Receiver, the Consignor, and the Consignee, the holder of this Bill of Lading and the owner of the Goods or person entitled to the possession of the Goods and the servants and agents and principals of any of these, all of whom shall be jointly and severally liable to the Carrier for the payment of Freight, and for the performance of the obligations of any of them under this Bill of Lading. "Goods" means the cargo received from the Shipper and includes a Container not supplied by the Carrier. "Container" includes a container, trailer, transportable tank, flat rack, pallet or any other article used to consolidate Goods or any equipment thereof or connected thereto. "Carriage" means the whole of the operations and the services undertaken by the Carrier in respect of the Goods. "Combined Transport" arises when the Place of Acceptance and/or the Place of Delivery are set out on page two overleaf in the relevant margins.

3. Carrier's Tariff

The terms of the Carrier's applicable Tariff at the date of shipment are incorporated herein. Copies of the relevant provisions of the applicable Tariff are available from the Carrier or its agents. In the case of inconsistency between this Bill of Lading and the applicable Tariff, this Bill of Lading shall prevail.

4. Time Bar

All liability, whatsoever, of the Carrier shall cease unless suit is brought within 9 months after delivery of the Goods or the date when the Goods should have been delivered.

5. Law and Jurisdiction

Except as otherwise provided specifically herein, disputes arising under this Bill of Lading or in connection therewith shall be determined exclusively by the High Court of Justice in London and in accordance with the English law. Any actions against the Merchant may, at the Carrier's sole option, also be brought in the countries of the Port of Loading, Port of Discharge, Place of Delivery or in any jurisdiction where the Merchant has a place of business.

6. Subcontracting

The Carrier shall be entitled to subcontract the whole or any part of the contract of Carriage, loading, unloading, storing, warehousing, handling including, but not limited to all duties usually undertaken by a Carrier.

7. Methods and Routes of Transportation

The Carrier may at any time and without notice to the Merchant:

- use any means of transport (water, land and/or air) or storage whatsoever;
 - transport or carry the Goods on another vessel or by conveyance or by any other means of transport than that named on page two overleaf;
 - proceed by any route in its sole and absolute discretion and whether the nearest, most direct, customary or advertised route at any speed, and proceed to or stay at any place whatsoever once or more often and in any order or omit calling at any port, whether scheduled or not;
 - terminate the transportation and discharge Goods or Containers or other packages and devan and/or store contents at any place whatsoever, ashore or afloat, in the open or covered, and require the Merchant to take delivery and, upon failure to do so, warehouse the Goods at risk and expense of Merchant and Goods;
 - comply with any orders, directions or recommendations given by any government or authority or by any person or body acting or purporting to act with the authority of any government or authority or having under the terms of the insurance on the Vessel or other conveyance employed by the Carrier the right to give such orders, directions or recommendations;
 - take any other steps or precautions as may appear reasonable to the Carrier under the circumstances.
- The liberties set out in Clause 7(a) through 7(f) may be invoked for any purpose whatsoever even if not connected with the carriage covered by this Bill of Lading, and any action taken or omitted to be taken, and any delay arising therefrom, shall be deemed to be within the contractual and contemplated carriage and not be an unreasonable deviation. Notwithstanding, the Carrier shall be entitled to full charges and any additional freight, storage and all other expenses incurred by or on behalf of Carrier, all of which shall be due and owing from Merchant, and the Carrier shall have a lien on the Goods for same.

8. Optional Storage

- Goods may be stowed by the Carrier by means of and in, for example, Containers, trailers, transportable tanks, flats, pallets, or similar articles of transport used to consolidate Goods.
 - Containers, trailers, transportable tanks and covered and uncovered flats, whether stowed by the Carrier or received by it in a stowage condition from the Merchant, may be carried on or under deck without notice to the Merchant and if so carried, the legislation referred to in Clause 11 below shall apply notwithstanding carriage on deck and the Goods and/or Containers shall contribute to General Average as if carried under deck.
- Notwithstanding anything contained in this Clause the Carrier shall be under no liability whatsoever for loss, damage or delay howsoever occurring to Goods stated on page two overleaf hereof to be carried on deck or so carried or to live animals whether or not carried on or under deck.

9. Hindrances affecting performance

- The Carrier shall use reasonable endeavours to complete the transport and to deliver the Goods at the place designated for delivery or as near thereto as under the prevailing circumstances possible.
- If at any time the performance of the contract as evidenced by this Bill of Lading is or will be affected by any hindrance, risk, delay, difficulty or disadvantage of whatsoever kind the Carrier (whether or not the transport is commenced) may at any time at its sole discretion and without notice to the Merchant:
 - abandon the Carriage of the Goods and where reasonably possible place the Goods or any part of them at the Merchant's disposal at any place which the Carrier may deem safe and convenient, whereupon the responsibility of the Carrier in respect of such Goods shall cease, or sell the Goods;
 - without prejudice to the Carrier's right to abandon the Carriage under Sub-Clause (a) above, continue the Carriage.
 - In any event the Carrier shall be entitled to full freight for Goods received for transportation and additional compensation for extra costs resulting from the circumstances referred to above. The Carrier exercising the liberties under this Clause shall not be under any obligation to take any particular measure and shall not be liable for any loss, delay or damage howsoever arising from any action or lack of action under this Clause.
 - The liability of the Carrier in respect of the Goods shall cease on the delivery or other disposition of the Goods in accordance with the orders or recommendations given by any government or authority or any person acting or purporting to act as or on behalf of such government or authority.

10. Option of Inspection

The Carrier may at its option open any Container or package to inspect the contents. If it appears that any part thereof cannot safely or properly be carried, either at all or without incurring additional expense, the Carrier may abandon the transportation and/or take any measures and/or incur any reasonable additional expenses to continue carriage or store Goods, which storage shall be deemed to constitute due delivery hereunder. The Merchant shall indemnify the Carrier against any reasonable additional Charges so incurred, unless due solely to the Carrier's fault.

11. Basic Liability

(1) The Carrier shall be liable for loss of or damage to the Goods occurring between the time when it receives the Goods into its charge and the time of delivery. In case of a multimodal transport and if the place of damage or loss of the Goods is known, the responsibility of the Carrier is determined by

- such loss or damage arose or resulted from
- act or neglect of the Merchant.
 - compliance with the instructions of the person(s) entitled to give them.
 - the lack of, or defective conditions of packing in the case of Goods which, by their nature, are liable to wastage or to be damaged when not packed or when not properly packed.
 - handling, loading, stowage or unloading of the Goods by or on behalf of the Merchant.
 - inherent vice of the Goods.
 - insufficiency or inadequacy of marks or numbers on the Goods, covering, or unit loads.
 - strikes or lock-outs or stoppages or restraints of labour from whatever cause whether partial or general.
 - nuclear incident.
 - act, neglect or default of the master, mariner, pilot or the servants of the Carrier in the navigation or in the management of the vessel.
 - fire, unless caused by the actual fault or privity of the Carrier.
 - act and instructions of governments, of prince and rulers, act of god, force majeure or authorities (including customs authorities) performing their duties.
 - independent subcontractors not appointed by or in the direct services of the Carrier.
 - any cause or event which the Carrier could not avoid and the consequence whereof it could not prevent by the exercise of reasonable diligence.
 - Where under Clause 11 (2) the Carrier is not under any liability in respect of some of the factors causing the loss or damage, it shall only be liable to the extent that those factors for which it is liable under this Clause have contributed to the loss or damage.
 - It shall be presumed that a damage which under the circumstances of the case could be attributed to the causes or events specified in Clause 11 (2) were caused by these causes or events. The Merchant shall however be entitled to prove that the loss or damage was not in fact caused either wholly or partly by one or more of these causes or events.

12. Limits of Liability

- When the Carrier is liable for compensation in respect of loss of or damage to the Goods, such compensation shall be calculated by reference to the value of such Goods they would have had at the place and time they were delivered to the Merchant in accordance with the contract or when they should have been so delivered.
- The sound value of the Goods shall be fixed according to the commodity exchange price or, if there is no such price, according to the current market price or, if there be no commodity exchange price or current market price, by reference to the normal value of Goods of the same kind and quality and is presumed to be the FOB/CFR invoice value plus freight and insurance if paid.
- Compensation per Bill of Lading for Goods lost or damaged or for other damages shall not exceed US\$ 1,000.00 legal tender of the USA.
- Compensation shall not, however, exceed the limits of the Hague Rules, Hague-Visby Rules/ US COGSA 1936/ or any other limit set under the applicable Conventions. In all other events the compensation shall not exceed US\$ 2.00 per kilo of gross weight of the Goods.
- Higher compensation may be claimed only when, with the consent of the Carrier, the value for the Goods declared by the Shipper and which exceeds the limits laid down in this Clause has been stated on page two overleaf of this Bill of Lading at the place indicated and when an ad valorem freight has been paid. In that case the amount of the declared value shall be substituted for that limit.

13. Special Provisions for Liability and Compensation

- Notwithstanding anything provided for in Clauses 11 and 12 above, the loss or damage of the Carrier and or the Merchant shall, in respect of liability of the Carrier, be determined by the provisions contained in any International Convention or national law which provisions cannot be departed from by private contract, to the detriment of the claimants and which would have applied if the Merchant had made a separate and direct contract with the Carrier in respect of the particular stage of transport where the loss or damage occurred and if there was received as evidence thereof any particular document which must be issued if such International Convention or national law shall apply.
- If neither the Hague- or Hague-Visby Rules or US COGSA 1936 or The Water Carriage Act of 1936 apply to carriage by sea by virtue of the foregoing provisions, the liability of the Carrier in respect of any carriage by sea shall be determined by the International Convention for the Unification of certain rules relating to Bills of Lading dated 25 August 1924 (Hague Rules) and any subsequent amendments thereto. The Hague-/Hague-Visby Rules shall also determine the liability of the Carrier in respect of carriage by inland waterways as if such carriage were carriage by sea. They shall also apply to all Goods whether carried on deck or under deck.
- If it cannot be proven where or when or at what stage of the Carriage the Goods were lost or damaged, it shall be conclusively deemed to have occurred whilst at sea and the Carrier's liability, if any, shall be determined in accordance with the provisions of Clause 13 (2).
- If the place of receipt or place of delivery is not named on page two overleaf
 - the Carrier shall be under no liability whatsoever for loss of or damage to the Goods, howsoever occurring, if such loss or damage arises prior to loading onto the vessel;
 - if the place of delivery is not named on the face hereof, the Carrier shall be under no liability whatsoever for loss of or damage to the Goods, howsoever occurring, if such loss or damage arises subsequent to discharge from the vessel.
- The clauses 11 to 13 of this Bill of Lading apply in addition to and shall not be construed as derogating from any defence or exclusion, restriction or limitation of liability available to the Carrier under the terms of this Bill of Lading or otherwise.

14. Delay, Consequential Loss

Unless expressly agreed, the Carrier does not undertake that the Goods shall arrive at the Port of Discharge or Place of Delivery at any particular time or to meet any particular market or use, and the Carrier shall not be liable for direct, indirect or consequential loss or damage caused by delay. If the Carrier should nevertheless be held legally liable for any such direct or indirect or consequential loss or damage caused by such alleged delay, such liability shall be limited to the freight for the transport covered by this Bill of Lading, or to the value of the Goods as determined in Clause 12, whichever is the lesser.

15. Notice of Loss of or Damage to the Goods

- Unless notice of loss of or damage to the Goods, specifying the general nature of such loss or damage, is given in writing by the Merchant to the Carrier when the Goods are handed over to the Merchant, such handing over is prima facie evidence of the delivery by the Carrier of the Goods as described in this Bill of Lading.
- Where the loss or damage is not apparent, the same prima facie effect shall apply if notice in writing is not given within three (3) consecutive days after the day when the Goods were handed over to the Merchant.

16. Defences and Limits for the Carrier, Servants, etc.

- The defences and limits of liability provided for in this Bill of Lading shall apply in any action against the Carrier for loss or damage to the Goods whether the action be founded in contract, bailment or in tort and even if the loss or damage arose as a result of unseaworthiness, negligence or fundamental breach of contract.
- The Merchant undertakes that no claim shall be made against any servant, agent, subcontractor or other persons whose services the Carrier has used in order to perform this Contract and if a claim is nevertheless made, to indemnify the Carrier against all consequences thereof.
- Without prejudice to the foregoing every such servant, agent, and Subcontractor shall have the benefit of all Terms and Conditions of

its own bill, and also as agent and trustee for such servants, agents and Subcontractors.

17. Merchant's Responsibility

The Merchant shall be deemed to have guaranteed to the Carrier the accuracy, at the time the Goods were taken in charge by the Carrier, of the description of the Goods, marks, numbers, quantity and weight, as furnished by it and the Merchant shall defend, indemnify and hold harmless the Carrier against all loss, damage and expenses arising or resulting from inaccuracies in or inadequacy of such particulars. The Merchant shall remain liable even if the Bill of Lading has been transferred.

18. Shipper-packed Containers

- If a Container has not been loaded, packed or stowed by the Carrier, the latter shall not be liable for loss of or damage to its contents and the Merchant shall cover any loss or expense incurred by the Carrier, if such loss, damage or expense has been caused by:
 - negligent loading, packing or stowing of the Container;
 - the contents being unsuitable for carriage in Container; or
 - the unsuitability or defective condition of the Container unless the Container has been supplied by the Carrier and the unsuitability or defective condition would not have been apparent upon reasonable inspection at or prior to the time when the Container was filled, packed or stowed.
- The Carrier does not accept liability for damage due to the unsuitability or defective condition of any equipment supplied by the Merchant.
- Containers supplied by or on behalf of the Carrier shall be returned to the Carrier with interiors clean, odour free to the point or place designated by the Carrier and in the same order and condition as handed over to the Merchant at the port of loading or any other inland destination and within the time prescribed in the Carrier's tariff or elsewhere. Should a Container not be returned in such manner the Merchant shall be liable for any detention, loss or expense incurred as a result thereof.
- Containers released into the care of the Merchant for packing, unpacking or any other purpose whatsoever are at the sole risk of the Merchant until redelivered to the Carrier. The Merchant shall indemnify the Carrier for all loss of and/or damage and/or delay to such Containers. Merchants are deemed to be aware of the dimensions and capacity of any Containers released to them.

19. Dangerous Goods

- The Merchant shall comply with all internationally recognised requirements and all rules which apply according to national law or by reason of international Convention, relating to the carriage of Goods of a dangerous nature, and shall in any event inform the Carrier in writing of the exact nature of the danger before Goods of a dangerous nature are taken into charge by the Carrier and indicate to it, if need be, the precautions to be taken.
- Goods of a dangerous nature which the Carrier did not know were dangerous, may, at any time or place, be unloaded, destroyed, or rendered harmless, without compensation. The Merchant shall be liable for all expenses, loss or damage arising out of their handing over for carriage or of their carriage.
- If any Goods shipped with the knowledge of the Carrier as to their dangerous nature shall become a danger to any person or property, they may in a like manner be landed at any place or destroyed or rendered innocuous by the Carrier without liability on the part of the Carrier except to General Average.
- Any hazardous cargo to be clearly marked with an asterisk on page two overleaf.

20. Freight and Charges

- The freight payable hereunder has been calculated and based on particulars of the Goods furnished by or on behalf of the Merchant. The Carrier shall be entitled at any time to reweigh, remeasure or revalue the Goods and for this purpose to open and remove and examine the contents of any Container(s) and if the particulars furnished are found to be incorrect, the freight shall be adjusted accordingly with a surcharge of 30% of the adjusted freight and the Merchant shall also pay any expenses incurred by the Carrier in checking the said particulars.
- Freight shall be deemed completely earned on receipt of the Goods by the Carrier and shall not be returnable in any event. Goods and/or Vessel lost or not lost and shall be paid by the Merchant immediately without any set-off, counter-claim or deduction or stay of execution but at latest before delivery of the cargo.
- Charges and/or expenses and/or claims, fines, penalties, damages, costs and other amounts which may be incurred or imposed upon Carrier by reason of any breach by Merchant of any of the terms and provisions of this Bill of Lading or of any statutory or regulatory requirement or to be paid by the Merchant as agreed and/or under the conditions of this Bill of Lading and/or under the statutory law are payable on demand shall be considered definitely payable in like manner as soon as the charges/expenses have been incurred.
- Merchants shall be jointly and severally liable to Carrier for freight, charges, expenses, demurrage, detention, advances and any and all costs and shall be liable to the Carrier for the cost and expenses of recovering such sums. The Carrier shall also have a lien against the Merchant on the Goods and any document relating thereto for all sums due from him to the Carrier in connection with any other shipment of the Merchant. The Carrier may exercise its lien at any time and place in its sole discretion and may dispose of or sell the Goods privately or by public auction without notice to the Merchant.

21. Lien

The Carrier shall have a lien on the Goods and any documents relating thereto which shall survive delivery of the Goods for any sums whatsoever payable by or chargeable to or for the account of the Merchant under this Bill of Lading and any contract preliminary hereto and for general average contributions to whomsoever due and for the cost and expenses of recovering such sums. The Carrier shall also have a lien against the Merchant on the Goods and any document relating thereto for all sums due from him to the Carrier in connection with any other shipment of the Merchant. The Carrier may exercise its lien at any time and place in its sole discretion and may dispose of or sell the Goods privately or by public auction without notice to the Merchant.

22. General Average

- General Average shall be adjusted at any port or place at the Carrier's option, and to be settled according to the York-Antwerp Rules 1994, this covering all Goods whether carried on or under deck. The New Jason Clause, as approved by BIMCO, to be considered as incorporated herein.
- Security including a cash deposit as the Carrier may deem sufficient to cover the estimated contribution of the Goods and any salvage and special charges thereon, shall, if required, be submitted to the Carrier prior to delivery of the Goods.

23. Both-to-Blame Collision Clause

The Both-to-Blame Collision Clause as adopted by BIMCO shall be considered incorporated herein.

24. U.S. Trade

- In case the contract evidenced by this Bill of Lading is subject to the Carriage of Goods by Sea Act of the United States of America, 1936 (U.S. COGSA), then the provisions stated in the said Act shall govern before loading and after discharge and throughout the entire time the Goods are in the Carrier's custody.
- If the U.S. COGSA applies, and unless the nature and value of the Goods have been declared by the shipper before the Goods have been handed over to the Carrier and inserted in this Bill of Lading, the Carrier shall in no event be or become liable for any loss of or damage to the Goods in an amount exceeding USD 500 per package or customary freight unit.
- The Southern District Court of New York to have sole jurisdiction in cases that are litigated for cargo shipped to or from the United States of America.

24. Non-Waiver and Severability

Nothing in this Bill of Lading shall operate to deprive the Carrier of any statutory protection or defence, immunity, exemption, limitation of or exoneration from liability contained in applicable laws. The Terms and Conditions of this Bill of Lading (including all the terms and conditions of the Carrier's applicable tariff incorporated herein by virtue of Clause 3 above) shall be separable, and if any part or term hereof shall be held invalid, this shall not affect the validity or enforceability of any other part or term hereof.

Shipper Durable - Hunke & Jochheim GmbH & Co. KG Westfalenstr. 77-79 58636 Iserlohn Germany		B/L No. GCHAM26070495	
Consigned to order of HPP Systems de Mexico S.A. de C.V. Km 48 Carretera Federal México-Pachuca, Los Reyes Acozac, Tecámac, CP. 55755 Estado de México, MX		 115, OMONIA AVENUE PAROUTIS BLDG., 3 rd Floor 3045 LIMASSOL	
Notify Party and address HPP Systems de Mexico S.A. de C.V. Km 48 Carretera Federal México-Pachuca, Los Reyes Acozac, Tecámac, CP. 55755 Estado de México, MX			
Ocean Vessel MAERKS DANUBE	Voyage No. SAC1655		
Port of Discharge Veracruz	Place of Delivery Veracruz	Freight payable Veracruz	Number of original Bills of Lading E / Express B/L
Marks and Nos.		Quantity and description of goods	Gross weight, kg Measurement, m ³
Adler Pelzer Group HPP Systems de Mexico S.A. de C.V. Km 48 Carretera Federal Mexico Pachuca, Los Reyes Acozac-Tecamac 55755 ESTADO DE MEXICO MEXIKO 1911811 Los Reyes Acozac		2 Pallet(s) S.T.C. Office products HS Code: 40169957	358kg
DRAFT			
All particulars above declared by Merchant			
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		Place and date of issue Norderstedt / 2026-JUL-24	
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The Carrier may at any time and without notice to the Merchant:

- (a) use any means of transport (water, land and/or air) or storage whatsoever;
- (b) transship or carry the Goods on another vessel or by conveyance or by any other means of transport than that named on page two overleaf;
- (c) proceed by any route in its sole and absolute discretion and whether the nearest, most direct, customary or advertised route at any speed, and proceed to or stay at any place whatsoever once or more often and in any order or omit calling at any port, whether scheduled or not;
- (d) terminate the transportation and discharge Goods or Containers or other packages and devan and/or store contents at any place whatsoever, ashore or afloat, in the open or covered, and require the Merchant to take delivery and, upon failure to do so, warehouse the Goods at risk and expense of Merchant and Goods;
- (e) comply with any orders, directions or recommendations given by any government or authority or by any person or body acting or purporting to act with the authority of any government or authority or having under the terms of the insurance on the Vessel or other conveyance employed by the Carrier the right to give such orders, directions or recommendations;
- (f) take any other steps or precautions as may appear reasonable to the Carrier under the circumstances.

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Notwithstanding anything contained in this Clause the Carrier shall be under no liability whatsoever for loss, damage or delay howsoever occurring to Goods stated on page two overleaf hereof to be carried on deck or so carried or to live animals whether or not carried on or under deck.

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- (1) The Carrier shall use reasonable endeavours to complete the transport and to deliver the Goods at the place designated for delivery or as near thereto as under the prevailing circumstances possible.
- (2) If at any time the performance of the contract as evidenced by this Bill of Lading is or will be affected by any hindrance, risk, delay, difficulty or disadvantage of whatsoever kind the Carrier (whether or not the transport is commenced) may at any time at its sole discretion and without notice to the Merchant:
- (a) abandon the Carriage of the Goods and where reasonably possible place the Goods or any part of them at the Merchant's disposal at any place which the Carrier may deem safe and convenient, whereupon the responsibility of the Carrier in respect of such Goods shall cease, or sell the Goods;
- (b) without prejudice to the Carrier's right to abandon the Carriage under Sub-Clause (a) above, continue the Carriage.
- (3) In any event the Carrier shall be entitled to full freight for Goods received for transportation and additional compensation for extra costs resulting from the circumstances referred to above. The Carrier exercising the liberties under this Clause shall not be under any obligation to take any particular measure and shall not be liable for any loss, delay or damage howsoever arising from any action or lack of action under this Clause.
- (4) The liability of the Carrier in respect of the Goods shall cease on the delivery or other disposition of the Goods in accordance with the orders or recommendations given by any government or authority or any person acting or purporting to act as or on behalf of such government or authority.

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The Carrier may at its option open any Container or package to inspect the contents. If it appears that any part thereof cannot safely or properly be carried, either at all or without incurring additional expense, the Carrier may abandon the transportation and/or take any measures and/or incur any reasonable additional expenses to continue carriage or store Goods, which storage shall be deemed to constitute due delivery hereunder. The Merchant shall indemnify the Carrier against any reasonable additional Charges so incurred, unless due solely to the Carrier's fault.

11. **Basic Liability**

(1) The Carrier shall be liable for loss of or damage to the Goods occurring between the time when it receives the Goods into its charge and the time of delivery. In case of a multimodal transport and if the place of damage or loss of the Goods is known, the responsibility of the Carrier is determined by

such loss or damage arose or resulted from

- (a) act or neglect of the Merchant.
- (b) compliance with the instructions of the person(s) entitled to give them.
- (c) the lack of, or defective conditions of packing in the case of Goods which, by their nature, are liable to wastage or to be damaged when not packed or when not properly packed.
- (d) handling, loading, stowage or unloading of the Goods by or on behalf of the Merchant.
- (e) inherent vice of the Goods.
- (f) insufficiency or inadequacy of marks or numbers on the Goods, covering, or unit loads.
- (g) strikes or lock-outs or stoppages or restraints of labour from whatever cause whether partial or general.
- (h) nuclear incident.
- (i) act, neglect or default of the master, mariner, pilot or the servants of the Carrier in the navigation or in the management of the vessel.
- (j) fire, unless caused by the actual fault or privity of the Carrier.
- (k) act and instructions of governments, of prince and rulers, act of god, force majeure or authorities (including customs authorities) performing their duties.
- (l) independent subcontractors not appointed by or in the direct services of the Carrier.
- (m) any cause or event which the Carrier could not avoid and the consequence whereof it could not prevent by the exercise of reasonable diligence.
- (3) Where under Clause 11 (2) the Carrier is not under any liability in respect of some of the factors causing the loss or damage, it shall only be liable to the extent that those factors for which it is liable under this Clause have contributed to the loss or damage.
- (4) It shall be presumed that a damage which under the circumstances of the case could be attributed to the causes or events specified in Clause 11 (2) were caused by these causes or events. The Merchant shall however be entitled to prove that the loss or damage was not in fact caused either wholly or partly by one or more of these causes or events.

12. **Limits of Liability**

- (1) When the Carrier is liable for compensation in respect of loss of or damage to the Goods, such compensation shall be calculated by reference to the value of such Goods they would have had at the place and time they were delivered to the Merchant in accordance with the contract or when they should have been so delivered.
- (2) The sound value of the Goods shall be fixed according to the commodity exchange price or, if there is no such price, according to the current market price or, if there be no commodity exchange price or current market price, by reference to the normal value of Goods of the same kind and quality and is presumed to be the FOB/CFR invoice value plus freight and insurance if paid.
- (3) Compensation per Bill of Lading for Goods lost or damaged or for other damages shall not exceed US\$ 1,000.00 legal tender of the USA.
- (4) Compensation shall not, however, exceed the limits of the Hague Rules, Hague-Visby Rules/ US COGSA 1936/ or any other limit set under the applicable Conventions. In all other events the compensation shall not exceed US\$ 2.00 per kilo of gross weight of the Goods.
- (5) Higher compensation may be claimed only when, with the consent of the Carrier, the value for the Goods declared by the Shipper and which exceeds the limits laid down in this Clause has been stated on page two overleaf of this Bill of Lading at the place indicated and when an ad valorem freight has been paid. In that case the amount of the declared value shall be substituted for that limit.

13. **Special Provisions for Liability and Compensation**

- (1) Notwithstanding anything provided for in Clauses 11 and 12 above, the loss or damage of the Carrier and or the Merchant shall, in respect of liability of the Carrier, be determined by the provisions contained in any International Convention or national law which provisions cannot be departed from by private contract, to the detriment of the claimants and which would have applied if the Merchant had made a separate and direct contract with the Carrier in respect of the particular stage of transport where the loss or damage occurred and if there was received as evidence thereof any particular document which must be issued if such International Convention or national law shall apply.
- (2) If neither the Hague- or Hague-Visby Rules or US COGSA 1936 or The Water Carriage Act of 1936 apply to carriage by sea by virtue of the foregoing provisions, the liability of the Carrier in respect of any carriage by sea shall be determined by the International Convention for the Unification of certain rules relating to Bills of Lading dated 25 August 1924 (Hague Rules) and any subsequent amendments thereto. The Hague-/Hague-Visby Rules shall also determine the liability of the Carrier in respect of carriage by inland waterways as if such carriage were carriage by sea. They shall also apply to all Goods whether carried on deck or under deck.
- (3) If it cannot be proven where or when or at what stage of the Carriage the Goods were lost or damaged, it shall be conclusively deemed to have occurred whilst at sea and the Carrier's liability, if any, shall be determined in accordance with the provisions of Clause 13 (2).
- (4) If the place of receipt or place of delivery is not named on page two overleaf
- (a) the Carrier shall be under no liability whatsoever for loss of or damage to the Goods, howsoever occurring, if such loss or damage arises prior to loading onto the vessel;
- (b) if the place of delivery is not named on the face hereof, the Carrier shall be under no liability whatsoever for loss of or damage to the Goods, howsoever occurring, if such loss or damage arises subsequent to discharge from the vessel.
- (5) Clauses 11 to 13 of this Bill of Lading apply in addition to and shall not be construed as derogating from any defence or exclusion, restriction or limitation of liability available to the Carrier under the terms of this Bill of Lading or otherwise.

14. **Delay, Consequential Loss**

Unless expressly agreed, the Carrier does not undertake that the Goods shall arrive at the Port of Discharge or Place of Delivery at any particular time or to meet any particular market or use, and the Carrier shall not be liable for direct, indirect or consequential loss or damage caused by delay. If the Carrier should nevertheless be held legally liable for any such direct or indirect or consequential loss or damage caused by such alleged delay, such liability shall be limited to the freight for the transport covered by this Bill of Lading, or to the value of the Goods as determined in Clause 12, whichever is the lesser.

15. **Notice of Loss of or Damage to the Goods**

- (1) Unless notice of loss of or damage to the Goods, specifying the general nature of such loss or damage, is given in writing by the Merchant to the Carrier when the Goods are handed over to the Merchant, such handing over is prima facie evidence of the delivery by the Carrier of the Goods as described in this Bill of Lading.
- (2) Where the loss or damage is not apparent, the same prima facie effect shall apply if notice in writing is not given within three (3) consecutive days after the day when the Goods were handed over to the Merchant.

16. **Defences and Limits for the Carrier, Servants, etc.**

- (1) The defences and limits of liability provided for in this Bill of Lading shall apply in any action against the Carrier for loss or damage to the Goods whether the action be founded in contract, bailment or in tort and even if the loss or damage arose as a result of unseaworthiness, negligence or fundamental breach of contract.
- (2) The Merchant undertakes that no claim shall be made against any servant, agent, Subcontractor or other persons whose services the Carrier has used in order to perform this Contract and if a claim is nevertheless made, to indemnify the Carrier against all consequences thereof.
- (3) Without prejudice to the foregoing every such servant, agent, and Subcontractor shall have the benefit of all Terms and Conditions of

its own behalf, and also as agent and trustee for such servants, agents and Subcontractors.

17. **Merchant's Responsibility**

The Merchant shall be deemed to have guaranteed to the Carrier the accuracy, at the time the Goods were taken in charge by the Carrier, of the description of the Goods, marks, numbers, quantity and weight, as furnished by it and the Merchant shall defend, indemnify and hold harmless the Carrier against all loss, damage and expenses arising or resulting from inaccuracies in or inadequacy of such particulars. The Merchant shall remain liable even if the Bill of Lading has been transferred.

18. **Shipper-packed Containers**

- (1) If a Container has not been loaded, packed or stowed by the Carrier, the latter shall not be liable for loss of or damage to its contents and the Merchant shall cover any loss or expense incurred by the Carrier, if such loss, damage or expense has been caused by:
- (a) negligent loading, packing or stowing of the Container;
- (b) the contents being unsuitable for carriage in Container; or
- (c) the unsuitability or defective condition of the Container unless the Container has been supplied by the Carrier and the unsuitability or defective condition would not have been apparent upon reasonable inspection at or prior to the time when the Container was filled, packed or stowed.
- (2) The Carrier does not accept liability for damage due to the unsuitability or defective condition of any equipment supplied by the Merchant.
- (3) Containers supplied by or on behalf of the Carrier shall be returned to the Carrier with interiors clean, odour free to the point or place designated by the Carrier and in the same order and condition as handed over to the Merchant at the port of loading or any other inland destination and within the time prescribed in the Carrier's tariff or elsewhere. Should a Container not be returned in such manner the Merchant shall be liable for any detention, loss or expense incurred as a result thereof.
- (4) Containers released into the care of the Merchant for packing, unpacking or any other purpose whatsoever are at the sole risk of the Merchant until redelivered to the Carrier. The Merchant shall indemnify the Carrier for all loss of and/or damage and/or delay to such Containers. Merchants are deemed to be aware of the dimensions and capacity of any Containers released to them.

19. **Dangerous Goods**

- (1) The Merchant shall comply with all internationally recognised requirements and all rules which apply according to national law or by reason of international Convention, relating to the carriage of Goods of a dangerous nature, and shall in any event inform the Carrier in writing of the exact nature of the danger before Goods of a dangerous nature are taken into charge by the Carrier and indicate to it, if need be, the precautions to be taken.
- (2) Goods of a dangerous nature which the Carrier did not know were dangerous, may, at any time or place, be unloaded, destroyed, or rendered harmless, without compensation. The Merchant shall be liable for all expenses, loss or damage arising out of their handing over for carriage or of their carriage.
- (3) If any Goods shipped with the knowledge of the Carrier as to their dangerous nature shall become a danger to any person or property, they may in a like manner be landed at any place or destroyed or rendered innocuous by the Carrier without liability on the part of the Carrier except to General Average.
- (4) Any hazardous cargo to be clearly marked with an asterisk on page two overleaf.

20. **Freight and Charges**

- (1) The freight payable hereunder has been calculated and based on particulars of the Goods furnished by or on behalf of the Merchant. The Carrier shall be entitled at any time to reweigh, remeasure or revalue the Goods and for this purpose to open and remove and examine the contents of any Container(s) and if the particulars furnished are found to be incorrect, the freight shall be adjusted accordingly with a surcharge of 30% of the adjusted freight and the Merchant shall also pay any expenses incurred by the Carrier in checking the said particulars.
- (2) Freight shall be deemed completely earned on receipt of the Goods by the Carrier and shall not be returnable in any event. Goods and/or Vessel lost or not lost and shall be paid by the Merchant immediately without any set-off, counter-claim or deduction or stay of execution but at latest before delivery of the cargo.
- (3) Charges and/or expenses and/or claims, fines, penalties, damages, costs and other amounts which may be incurred or imposed upon Carrier by reason of any breach by Merchant of any of the terms and provisions of this Bill of Lading or of any statutory or regulatory requirement or to be paid by the Merchant as agreed and/or under the conditions of this Bill of Lading and/or under the statutory law are payable on demand shall be considered definitely payable in like manner as soon as the charges/expenses have been incurred.
- (4) Merchants shall be jointly and severally liable to Carrier for freight, charges, expenses, demurrage, detention, advances and any and all costs and shall be liable to the Carrier for the cost and expenses of recovering such sums. The Carrier shall also have a lien against the Merchant on the Goods and any document relating thereto for all sums due from him to the Carrier in connection with any other shipment of the Merchant. The Carrier may exercise its lien at any time and place in its sole discretion and may dispose of or sell the Goods privately or by public auction without notice to the Merchant.

21. **Lien**

The Carrier shall have a lien on the Goods and any documents relating thereto which shall survive delivery of the Goods for any sums whatsoever payable by or chargeable to or for the account of the Merchant under this Bill of Lading and any contract preliminary hereto and for general average contributions to whomsoever due and for the cost and expenses of recovering such sums. The Carrier shall also have a lien against the Merchant on the Goods and any document relating thereto for all sums due from him to the Carrier in connection with any other shipment of the Merchant. The Carrier may exercise its lien at any time and place in its sole discretion and may dispose of or sell the Goods privately or by public auction without notice to the Merchant.

22. **General Average**

- (1) General Average shall be adjusted at any port or place at the Carrier's option, and to be settled according to the York-Antwerp Rules 1994, this covering all Goods whether carried on or under deck. The New Jason Clause, as approved by BIMCO, to be considered as incorporated herein.
- (2) Security including a cash deposit as the Carrier may deem sufficient to cover the estimated contribution of the Goods and any salvage and special charges thereon, shall, if required, be submitted to the Carrier prior to delivery of the Goods.

23. **Both-to-Blame Collision Clause**

The Both-to-Blame Collision Clause as adopted by BIMCO shall be considered incorporated herein.

24. **U.S. Trade**

- (1) In case the contract evidenced by this Bill of Lading is subject to the Carriage of Goods by Sea Act of the United States of America, 1936 (U.S. COGSA), then the provisions stated in the said Act shall govern before loading and after discharge and throughout the entire time the Goods are in the Carrier's custody.
- (2) If the U.S. COGSA applies, and unless the nature and value of the Goods have been declared by the shipper before the Goods have been handed over to the Carrier and inserted in this Bill of Lading, the Carrier shall in no event be or become liable for any loss of or damage to the Goods in an amount exceeding USD 500 per package or customary freight unit.
- (3) The Southern District Court of New York to have sole jurisdiction in cases that are litigated for cargo shipped to or from the United States of America.

24. **Non-Waiver and Severability**

Nothing in this Bill of Lading shall operate to deprive the Carrier of any statutory protection or defence, immunity, exemption, limitation of or exoneration from liability contained in applicable laws. The Terms and Conditions of this Bill of Lading (including all the terms and conditions of the Carrier's applicable tariff incorporated herein by virtue of Clause 3 above) shall be separable, and if any part or term hereof shall be held invalid, this shall not affect the validity or enforceability of any other part or term hereof.

Shipper

CEVA AIR & OCEAN GERMANY GMBH
AS AGENTS FOR PYRAMID LINES SINGAPORE
PTE. LTD SUEDELLER MODUL G-2,
MUNICH BY 85356 GERMANY
EORI+DE2001373

B/L No.
VER285180



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED

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

6/08/HAM/160175

Copy

Consigned to order of

CEVA A&O MEXICO SA DE CV
AS AGENTS FOR PYRAMID LINES SINGAPORE
PTE. LTD. AV. INSURGENTES SUR 1079 PISO
22 23 BENITO JUAREZ
CIUDAD DE MEXICO CMX 3720 MEXICO
RFC+SME980702916

Notify Party and address

CEVA A&O MEXICO
AV. INSURGENTES SUR 1079, COL. NOCHE
BUENA PISO 22 Y 23, BENITO JUAREZ
CIUDAD DE MEXICO CMX 03720 MEXICO
RFC+SME980702916
AEROSPACE OPERATIONS EXECUTIVE
KARLA.FIEL@CEVALOGISTICS.COM

		Place of receipt HAMBURG, GERMANY CFS	
Ocean vessel GSL TEGEA 630W		Port of loading BREMERHAVEN, GERMANY	
Port of discharge VERACRUZ, MEXICO	Place of delivery VERACRUZ, MEXICO CFS		Freight payable ORIGIN
		Number of original Bills of Lading 0/ZERO	
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain
856763984 856763931	7 CRATES	HELICOPTER PARTS	Gross weight, kg. 1384,000
856760678 856760653		HS-CODE: 88073000, 84833080,	Measurement, m ³ 6,562
856760532 856739148		84833032	
856739005			
STOWED INTO CONTAINER NO.: MRSU5588444		SEAL : B193312	

TOTAL

7 CRATES

1384,000 KGS

6,562 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.

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

- a) 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
- b) 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 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Shipper
KOENIG & BAUER SHEETFED AG & CO. KG
FRIEDRICH-LIST-STR. 47
01445 RADEBEUL
GERMANY

B/L No.
VER285186



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED

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

6/08/HAM/160180

Copy

Consigned to order of

KOENIG & BAUER LATAM, SAPI DE CV
DEL. MIGUEL HIDALGO
C. PLINIO 150, COL. LOS MORALES
C.P. 11510 CIUDAD DE MEXICO, MEXICO
MAIL: SEBASTIAN.VOGT@KOENIG-BAUER.COM
TEL : +52-55-52805239
RFC : KLA120808TZ1

Notify Party and address

KOENIG & BAUER LATAM, SAPI DE CV
DEL. MIGUEL HIDALGO
C. PLINIO 150, COL. LOS MORALES
C.P. 11510 CIUDAD DE MEXICO, MEXICO
MAIL: SEBASTIAN.VOGT@KOENIG-BAUER.COM
TEL : +52-55-52805239
RFC : KLA120808TZ1

Place of receipt
RADEBEUL

Ocean vessel

GSL TEGEA 630W

Port of loading

BREMERHAVEN

Port of discharge

VERACRUZ

Place of delivery

DAP MEXICO CITY

Freight payable

HAMBURG

Number of original Bills of Lading

0/ZERO

Marks and Nos.

1352383 / 307060

Quantity of Goods

5 CASES

Description of Goods

PRINTING PAPER AND CONSUMABLES
FOR SHEETFED_OFFSET-PRINTING
MACHINE
RA164-6+L SAPC ALV2
S/N: 381429
INVOICE: 1352383, 3961781500
HS-CODE: 48101900, 11081300,
11081990, 19019099, 32141010,
32151900, 35061000, 38140090,
38249992, 38249996, 39199080,
39233010, 39249000, 39269097,
40082190, 40151900, 48239085

Said to contain

Gross weight, kg.

3854,000

Measurement, m³

8,761

STOWED INTO CONTAINER NO.: MRSU5588444

SEAL : B193312

TOTAL

5 CASES

3854,000 KGS

8,761 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.

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 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Shipper
UPS SCS GMBH & CO. KG
AS AGENT OF UPS EUROPE SRL
ROENTGENSTRASSE 28
HAMBURG HH 22335 GERMANY
EORI+DE5522145

B/L No.
VER285188



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED

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

6/08/HAM/160181

Copy

Consigned to order of

RFC: UME960604PZ7 UPS SCS MEXICO SA DE
CV AS AGENT FOR UPS OCEAN FREIGHT
SERVICES
EUGENIA NO. 189 COL NARVARTE ORIENTE
CIUDAD DE MEXICO MEX CP 03020 MEXICO
RFC+12346646
UPSOCEANMEXICO@UPS.COM

Notify Party and address

RFC: UME960604PZ7 UPS SCS MEXICO SA DE
CV AS AGENT FOR UPS OCEAN FREIGHT
SERVICES
EUGENIA NO. 189 COL NARVARTE ORIENTE
CIUDAD DE MEXICO MEX CP 03020 MEXICO
RFC+12346646
UPSOCEANMEXICO@UPS.COM

		Place of receipt HAMBURG, GERMANY CFS	
Ocean vessel GSL TEGEA 630W		Port of loading BREMERHAVEN, GERMANY	
Port of discharge VERACRUZ, MEXICO	Place of delivery VERACRUZ, MEXICO CFS		Freight payable ORIGIN
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. APTIV SERVICES US LLC RAMOS ARIZPE MEXICO MX REF 85072822 STOWED INTO CONTAINER NO.: MRSU5588444	Quantity of Goods 3 PALLETS	Description of Goods SEALS FOR AUTOMOTIVE AS PER INVOICE#85072822 HTS:392690 **HSCODE: 392690**	Said to contain Gross weight, kg. 449,800 Measurement, m ³ 2,774
		SEAL : B193312	

TOTAL 3 PALLETS 449,800 KGS 2,774 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 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
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 HAMBURG
GERMANY

B/L No.
VER285193



SACO SHIPPING LINE LTD

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

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

6/08/HAM/160184

Copy

		Place of receipt HAMBURG CFS	
Ocean vessel GSL TEGEA 630W		Port of loading BREMERHAVEN	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable VERACRUZ
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. GRUPO ABC DE MEXI CO SA DE CV AV. NORTE CUATRO DN: 82148744 STOWED INTO CONTAINER NO.: MRSU5588444	Quantity of Goods 1 PALLET	Description of Goods HC.AIR 55 FKM HP KRT HS-CODE: 730729 INVOICE: 40047490	Said to contain Gross weight, kg. 246,000 Measurement, m ³ 1,507

SEAL : B193312

TOTAL **1 PALLET** **246,000 KGS** **1,507 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 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wolkämmerstraße 1
21107 Hamburg
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
INTICA SYSTEMS SE
SPITALHOFSTRASSE 94
94032 PASSAU

B/L No.
VER285209



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED

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

6/08/HAM/160191

Copy

Consigned to order of
SISTEMAS MECATRONICOS INTICA S.A.P.
DE C.V.
AV: MINA DE GUADALUPE 838 PARQUE
INDUSTRIAL SANTA FE IV PUERTO INTER
SILAO, GUANAJUATO, MEXICO**

Notify Party and address
SISTEMAS MECATRONICOS INTICA S.A.P.
DE C.V.
**TEL. 52 473 121 50 36
DANIEL MONDOZA / INTERNATIONAL TRAD
E-MAIL: D.MENDOZA@INTICA-SYSTEMS.COM

		Place of receipt BUECHLBERG	
Ocean vessel GSL TEGEA 630W		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery DAP SILAO / GUANAJUATO		Freight payable HAMBURG
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. SISTEMAS MECATRONICOS INTICA S.A.P.I. DE C.V. PUERTO INTERIOR, SILAO, GUANAJUATO, MEXICO DELIVERY NOTE NO. 80024032 + 80024035 SHIPPER'S LOAD, STOW, WEIGH AND COUNT	Quantity of Goods 2 PACKAGES	Description of Goods S.T.C. / S.L.A.C. 2 CARTONS STOWED ON 2 PALLETS WITH CABLE/CONNECOTR + SEALING BATCH: 0000017905, 0000017911 HS CODE: 85444290	Said to contain Gross weight, kg. 90,000 Measurement, m ³ 1,067

STOWED INTO CONTAINER NO.: MRSU5588444

SEAL : B193312

TOTAL **2 PACKAGES** **90,000 KGS** **1,067 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.

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 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkammereistraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



B-EPD ENVIRONMENTAL PRODUCT DECLARATION

Muylle Facon

Rubio Monocoat Oil Plus 2C

Amount of oil in kg needed to protect and decorate 1 m² of substrate for 60 years with a minimum opacity level of 98%

Issued 20.04.2021

Valid until 20.04.2026

Third party verified

Conform to EN 15804+A2, NBN/DTD B08-001 and ISO 14025

Modules declared Cradle to gate with options					
A123	A4	A5	B2 B4 B6	C	D
•	•	•	•	•	•

[B-EPD n° 21_0083_002_00_00_EN]



OWNER OF THIS ENVIRONMENTAL PRODUCT DECLARATION

Muylle Facon bvba



EPD PROGRAM OPERATOR

**Federal Public Service of Health, Food Chain Safety
and Environment**

www.b-epd.be

The intended use of this EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings. This EPD is only valid when registered on www.b-epd.be. The FPS Public Health cannot be held responsible for the information provided by the owner of the EPD.

PRODUCT DESCRIPTION

PRODUCT NAME

Muylle Facon Rubio Monocoat (RMC) Oil Plus 2C, a hardwaxoil

PRODUCT DESCRIPTION AND INTENDED USE

Rubio Monocoat Oil Plus 2C is a (coloured) hardwaxoil containing mainly vegetable oils and hardwaxes produced by Muylle Facon (component A) and a chemical accelerator (component B).

The product colours and protects wooden surfaces for indoor use (e.g. interior wooden floor coverings) in one single layer. The product does not contain water or solvents. Colours without overlaps.

The oil is available in different forms. Approximately 62% of the production volume of the oil is sold together with an accelerator in two separate metal drums with a plastic joint (see figure). Component B is the accelerator and component A is the oil. The other 37% of the oil is sold without component B in a metal drum or plastic bottle. The advantage of using component B is that the oil will dry faster, but the service life time is not affected if only component A is used. Further, the oil is available in a wide range of different colours (even colours on custom demand can be delivered), each with different amounts of pigments. In this EPD an average content, based on the yearly production, is used. The variability of the product group has been investigated using the guidelines of the B-PCR (NBN/DTD B 08-001:2017). This analysis showed that the variability between the average product and the worst-cases is relatively small. Therefore one can consider that the average product is representative for the product group.

This is a specific EPD for a hardwaxoil produced by Muylle Facon.

REFERENCE FLOW / DECLARED UNIT

Environmental Product Declaration (EPD) describes the environmental impacts of the amount of oil in kg needed to protect and decorate 1 m² of wooden substrate for 60 years with a minimum opacity level of 98%.

The weight per reference flow is 0,012 kg.

The density of the product is 1022 kg / m³.

For maintenance every 5 years 0,0024 kg/m² is reapplied. Thus, over the total reference service life (RSL) 0,0384 kg/m² is applied. (see further in paragraph 'Reference service life' and 'B - Use stage')

Packaging is included.

INSTALLATION

Materials for application and installation are included. Following materials are needed for mounting and/or installing the product on a wooden surface of 60 m²: 2 metal polish nets, 1 cotton rag and 2 polishing pads. A polishing machine is used to prepare the floor and to apply the oil. The polishing machine consumes electricity from the grid.

IMAGES OF THE PRODUCT AND ITS INSTALLATION



COMPOSITION AND CONTENT

Components	Composition / content / ingredients	Quantity
Product	- Linseed oil - Wax - Leadfree catalytic dryer - Pigments - Accelerator (hexamethylene diisocyanate) - Others	63% 12% 2% 6% 17% <1%
Fixation materials	NA	
Jointing materials	NA	
Treatments	Energy consumed by polishing machine Maintenance every 5 years	6,50E-02 kWh
Packaging	If component A and component B are sold together the product is packed in one of following sets: - 1,3 liter set: component A in 1 liter metal drum and component B in 0,3 liter metal drum. Both metal drums are connected with a plastic joint - 3,5 liter set: component A in 2,75 liter metal drum and component B in 0,75 liter metal drum. Both metal drums are connected with a plastic joint - 0,350 liter set: component A in 0,275 liter metal drum and component B in 0,075 liter metal drum. Both metal drums are connected with a plastic joint If only component A is used, the product can be packed in a range of metal drums and plastic bottles of different volumes: - a plastic bottle of 20 ml or 100 ml, or a metal drum of 275 ml, 0.5 liter, 1 liter, 2.75 liter or 5 liter is used.	

The product does not contain materials listed in the “Candidate list of Substances of Very High Concern for authorization”.

REFERENCE SERVICE LIFE

The reference service life is estimated at 60 years, equal to the building lifetime defined in MMG (Servaes et al., 2013).

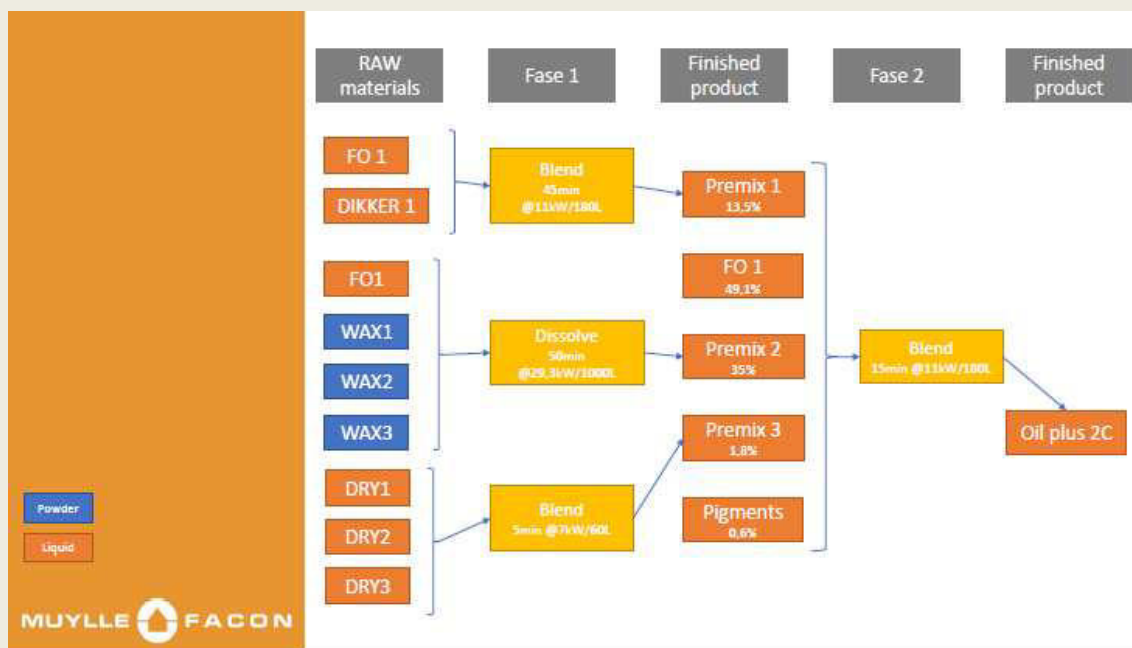
RMC Oil Plus 2C is applied to wooden surfaces for indoor use. When well maintained, the life span of the treated product can easily go up to 60 years or more. Based on the current available technical 'in-house'-knowledge obtained during the last 12 years, Muylle Facon declares that -when well maintained- the wooden surface will look like as if it was freshly installed. Depending on the use frequency of the wooden surface (e.g. persons passing over a floor) and the type of wood, a certain amount of the product detaches over time due to wear. It is assumed that over 5 years on average 0,0024 kg/m² detaches. Therefore, maintenance (with the same product RMC Oil Plus 2C) should be done every 5 years. A maintenance requires approximately 0,005 kg/m², of which 0,0024 kg/m² is absorbed in the wood and 0,0026 kg/m² is lost during application (see further in A5 – Installation in the building). In this EPD an analysis over the RSL taking into account wear off and reapplicaton was done

DESCRIPTION OF GEOGRAPHICAL REPRESENTATIVITY

The EPD is representative for the Belgian market. The manufacturing occurs at the Muylle Facon production site in Izegem, Belgium, and the product is applied, used and reaches its end-of-life in Belgium.

DESCRIPTION OF THE PRODUCTION PROCESS AND TECHNOLOGY

First the different raw materials are weighed (= weighing process). The second step is the mixing process, which consists of two phases. In the first phase the raw materials are blended or dissolved to obtain intermediate products or premixes. In the second phase of the mixing process the premixes are blended, which eventually results in the final product. Finally, the metal drums with the blend (= component A) are emptied according to the desired final packaging (= filling process). The mixing process to obtain component A is shown in the schematical overview below. The accelerator or component B (i.e. hexamethylene diisocyanate) is bought in bulk by Muylle Facon, packed in the appropriate metal drums and sold together with component A.



TECHNICAL DATA / PHYSICAL CHARACTERISTICS

Technical property	Standard	Value	Unit	Comment
VOC content	/	0%	/	VOC test results from Ecce
Consumption	/	25	g/m ²	
Overlaps	/	No	/	due to the very low film forming and the molecular bonding with the wood (cellulose)
Density	/	1022	kg/m ³	

LCA STUDY

DATE OF LCA STUDY

April 2021

SOFTWARE

For the calculation of the LCA results, the software program SimaPro 9.1.1.1 (PRé Consultants, 2021) has been used.

INFORMATION ON ALLOCATION

At Muylle Facon, different types of oils for surface treatment are produced. For every oil specific data was available for the use of raw materials, the use of electricity, natural gas, etc. No specific data was available for the fraction of the area of the site and factory used to produce the analyzed product. The area of the facility has been allocated to the analyzed product using the respective annual production volume (physical relationship).

INFORMATION ON CUT OFF

The following processes are considered below cut-off:

- benefits and loads of recycling, incineration and reuse of packaging waste in module D;
- benefits and loads from incineration and recycling of 5% transport and installation losses in module D;
- manufacturing of the polishing machine;

INFORMATION ON EXCLUDED PROCESSES

Following processes were excluded for the inventory:

- manufacturing of the polishing machine;
- packaging of ancillary materials used during manufacturing and installation of the product;
- impact of the losses due to use of the wooden surface (e.g. persons passing over a floor);
- environmental impacts caused by the personnel of the production plants, e.g. waste from the cafeteria and sanitary installations, accidental pollution caused by human mistakes, or environmental effects caused by commuter traffic; heating or cooling of the plants in order to ensure a comfortable indoor climate for the personnel for example is also neglected. The total of neglected input flows is less than 5% of energy usage and mass as prescribed by EN15804+A2

INFORMATION ON BIOGENIC CARBON MODELLING

The oil contains linseed oil, derived from linseeds, and Carnauba wax, derived from palm leaves. Netto uptake of biogenic CO₂ within both materials is reported in module A1, netto release of biogenic CO₂ related to these flows is reported in A3 and C4. The accompanying packaging does not contain biogenic carbon.

Biogenic carbon content (kg C / FU)	
Biogenic carbon content in product (at the gate)	2,25E-02
Biogenic carbon content in accompanying packaging (at the gate)	0

INFORMATION ON CARBON OFFSETTING

Carbon offsetting is not allowed in the EN 15804 and hence not taken into account in the calculations.

ADDITIONAL OR DEVIATING CHARACTERISATION FACTORS

The characterization factors from EC-JRC were applied. No additional or deviating characterisation factors were used.

DESCRIPTION OF THE VARIABILITY

The oil is available in different forms. Approximately 62% of the production volume of the oil is sold together with an accelerator in two separate metal drums with a plastic joint. Component B is the accelerator and component A is the oil. The other 37% of the oil is sold without component B in a metal drum or plastic bottle. Further, the oil is available in a wide range of different colours (even colours on custom demand can be delivered), each with different amounts of pigments. In this EPD an average content, based on the yearly production, is used. The variability of the product group has been investigated using the guidelines of the B-PCR (NBN/DTD B 08-001:2017). This analysis showed that the variability between the average product and the worst-cases is relatively small. Therefore one can consider that the average product is representative for the product group.

DATA

SPECIFICITY

The data used for the LCA are specific for this product which is manufactured by a single manufacturer in a single production site. The composed datasets for this life cycle assessment are representative and relevant for oil-based products produced by Muylle Facon to protect and decorate wooden surfaces for indoor use.

PERIOD OF DATA COLLECTION

Manufacturer specific data have been collected from November 2017 until November 2018.

INFORMATION ON DATA COLLECTION

Company specific data for the product stage have been collected by Muylle Facon and were provided to VITO through an online data collection questionnaire and additional excel-files. The LCI data for the product stage have been checked by the EPD verifier (Vinçotte) during a factory visit. VITO uses publicly available generic data for all background processes such as the production of electricity, transportation by means of a specific truck, etc.

DATABASE USED FOR BACKGROUND DATA

The LCI source used in this study is the Ecoinvent 3.6 database (Wernet et al., 2019).

ENERGY MIX

The Belgian electricity mix (consumption mix + import) has been used to model electricity use in life cycle stages A3, A5, C1 and C4. The used record is the Ecoinvent record 'Electricity, low voltage {BE}| market for | Cut-off, U' (Wernet et al., 2019).

PRODUCTION SITES

Muylle Facon, Izegem, Belgium

SYSTEM BOUNDARIES

Product stage			Construction installation stage		Use stage							End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Construction installation stage	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☒	☒	☒	☒	☒	MND	☒	MND	☒	MND	☒	MND	☒	☒	☒	☒	☒

X = included in the EPD

MND = module not declared

The product is 100% incinerated at its end-of-life. The benefits from the potential use of exported electricity and heat during incineration are declared in module D.

No coproducts are produced.

The product does not contain recycled content.

POTENTIAL ENVIRONMENTAL IMPACTS PER REFERENCE FLOW

		Production			Construction process stage		Use stage							End-of-life stage				D Reuse, recovery, recycling	Total excl module D
		A1 Raw material	A2 Transport	A3 manufacturing	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal		
	GWP total (kg CO ₂ equiv/FU)	2,46E-02	2,51E-04	5,01E-03	2,28E-04	1,25E-01	MND	7,77E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,08E-04	0,00E+00	3,32E-02	-1,09E-02	9,65E-01
	GWP fossil (kg CO ₂ equiv/FU)	4,68E-02	2,51E-04	4,51E-03	2,28E-04	1,23E-01	MND	7,70E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,08E-04	0,00E+00	1,08E-02	-1,09E-02	9,56E-01
	GWP biogenic (kg CO ₂ equiv/FU)	-2,25E-02	1,10E-07	4,97E-04	1,03E-07	6,66E-04	MND	3,90E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,48E-08	0,00E+00	2,24E-02	-1,54E-05	4,96E-03
	GWP luluc (kg CO ₂ equiv/FU)	3,33E-04	9,09E-08	3,07E-06	8,94E-08	4,92E-04	MND	2,61E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	7,27E-08	0,00E+00	4,77E-07	-8,74E-06	3,43E-03
	ODP (kg CFC 11 equiv/FU)	2,98E-09	5,67E-11	2,71E-10	5,14E-11	9,05E-09	MND	6,71E-08	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	4,73E-11	0,00E+00	1,89E-10	-1,78E-09	7,97E-08
	AP (mol H ⁺ equiv/FU)	6,22E-04	1,04E-06	2,52E-05	9,30E-07	9,54E-04	MND	4,97E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,50E-07	0,00E+00	5,26E-06	-1,49E-05	6,58E-03
	EP freshwater (kg P _e equiv/FU)	7,40E-06	2,09E-09	1,40E-07	2,01E-09	1,09E-05	MND	5,58E-05	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	1,63E-09	0,00E+00	2,11E-08	-1,05E-07	7,42E-05
	EP marine (kg N _e equiv/FU)	2,82E-04	3,10E-07	3,99E-06	2,69E-07	3,90E-04	MND	1,87E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,52E-07	0,00E+00	1,53E-06	-3,48E-06	2,55E-03
	EP terrestrial (mol N _e equiv/FU)	2,03E-03	3,43E-06	6,46E-05	2,98E-06	2,89E-03	MND	1,40E-02	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,79E-06	0,00E+00	1,71E-05	-4,06E-05	1,90E-02
	POCP (kg Ethene equiv/FU)	1,64E-04	1,05E-06	1,49E-05	9,38E-07	3,59E-04	MND	2,34E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,54E-07	0,00E+00	4,62E-06	-1,20E-05	2,88E-03

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	ADP Elements (kg Sb equiv/FU)	7,42E-08	4,94E-10	8,08E-08	4,92E-10	2,58E-07	MND	1,50E-06	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	4,05E-10	0,00E+00	1,70E-09	-9,61E-09	1,92E-06
	ADP fossil fuels (MJ/FU)	5,33E-01	3,78E-03	5,59E-02	3,45E-03	1,89E+00	MND	1,56E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	3,14E-03	0,00E+00	1,09E-02	-2,59E-01	1,81E+01
	WDP water deprived (FU)	2,08E-02	1,08E-05	1,22E-03	1,12E-05	5,91E-02	MND	4,40E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,73E-06	0,00E+00	1,96E-03	-1,39E-03	5,23E-01

GWP total = total Global Warming Potential (Climate Change); GWP-Juluc = Global Warming Potential (Climate Change) land use and land use change; ODP = Ozone Depletion Potential; AP = Acidification Potential for Soil and Water; EP = Eutrophication Potential; POCP = Photochemical Ozone Creation; ADPE = Abiotic Depletion Potential – Elements; ADPF = Abiotic Depletion Potential – Fossil Fuels; WDP = water use (Water (user) deprivation potential, deprivation-weighted water consumption)

RESOURCE USE

	Production			Construction process		Use stage							End-of-life stage				D Reuse, recovery, recycling	Total excl module D
	A1 Raw material	A2 Transport	A3 manufacturing	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Returbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal		
PERE (MJ/FU, net calorific value)	4,82E+01	5,46E-05	1,09E-02	5,34E-05	7,72E-01	MND	3,56E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	4,33E-05	0,00E+00	7,88E-02	-1,56E-02	4,90E+00
PERM (MJ/FU, net calorific value)	7,96E-02	0,00E+00	-1,54E-03	0,00E+00	3,47E-10	MND	1,72E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	-7,81E-02	0,00E+00	1,72E-01
PERT (MJ/FU, net calorific value)	5,62E-01	5,46E-05	9,34E-03	5,34E-05	7,72E-01	MND	3,73E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	4,33E-05	0,00E+00	7,66E-04	-1,56E-02	5,07E+00
PENRE (MJ/FU, net calorific value)	5,27E-01	3,81E-03	7,13E-02	3,49E-03	2,06E+00	MND	1,68E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	3,16E-03	0,00E+00	5,57E-02	-2,80E-01	1,95E+01
PENRM (MJ/FU, net calorific value)	6,13E-02	0,00E+00	-5,74E-03	0,00E+00	7,40E-03	MND	1,38E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	-4,36E-02	0,00E+00	1,58E-01
PENRT (MJ/FU, net calorific value)	5,88E-01	3,81E-03	6,56E-02	3,49E-03	2,07E+00	MND	1,69E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	3,16E-03	0,00E+00	1,21E-02	-2,80E-01	1,97E+01
SM (kg/FU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,64E-03	0,00E+00
RSF (MJ/FU, net calorific value)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

<i>NRSF</i> (MJ/FU, net calorific value)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<i>FW</i> (m³ water eq/FU)	5,16E-04	3,86E-07	3,23E-05	3,93E-07	1,66E-03	MND	1,15E-02	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	3,11E-07	0,00E+00	1,72E-04	-4,43E-05	1,39E-02

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources;
 PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary
 energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

WASTE CATEGORIES & OUTPUT FLOWS

	Production			Construction process stage		Use stage							End-of-life stage					
	A1 Raw material	A2 Transport	A3 manufacturing	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling	Total excl module D
Hazardous waste disposed (kg/FU)	8,12E-07	1,31E-08	1,78E-07	8,93E-09	2,21E-06	MND	1,27E-05	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,22E-09	0,00E+00	2,39E-07	-2,58E-07	1,62E-05
Non-hazardous waste disposed (kg/FU)	6,20E-03	1,77E-04	3,23E-03	2,04E-04	2,89E-02	MND	1,07E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	1,50E-04	0,00E+00	1,02E-02	-2,98E-04	1,57E-01
Radioactive waste disposed (kg/FU)	9,66E-07	2,57E-08	1,57E-07	2,34E-08	8,45E-06	MND	8,20E-05	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,14E-08	0,00E+00	5,85E-08	-1,44E-06	9,17E-05
Components for re-use (kg/FU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling (kg/FU)	0,00E+00	0,00E+00	2,64E-04	0,00E+00	1,38E-03	MND	3,61E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,64E-03	5,26E-03
Materials for energy recovery (kg/FU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (MJ/FU)	0,00E+00	0,00E+00	2,73E-03	0,00E+00	3,95E-02	MND	9,30E-02	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	2,92E-02	-7,15E-02	1,64E-01

IMPACT CATEGORIES ADDITIONAL TO EN 15804

		Production			Construction process		Use stage							End-of-life stage				D Reuse, recovery, recycling	Total excl module D
		A1 Raw material	A2 Transport	A3 manufacturing	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal		
	PM (disease incidence)	4,43E-09	1,78E-11	2,97E-10	1,64E-11	7,04E-09	MND	3,66E-08	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	1,45E-11	0,00E+00	5,11E-11	-6,47E-11	4,84E-08
	IRHH (kg U235 eq/FU)	8,44E-04	1,65E-05	1,64E-04	1,51E-05	9,47E-03	MND	9,45E-02	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	1,37E-05	0,00E+00	4,70E-05	-1,66E-03	1,05E-01
	ETF (CTU _h /FU)	7,15E-01	3,08E-03	1,06E-01	2,88E-03	1,88E+00	MND	1,07E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,51E-03	0,00E+00	2,15E-01	-6,90E-02	1,36E+01
	HTCE (CTU _h /FU)	5,25E-11	1,01E-13	2,88E-11	8,39E-14	1,12E-10	MND	5,31E-10	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	7,06E-14	0,00E+00	1,02E-12	-2,05E-12	7,27E-10
	HTnCE (CTU _h /FU)	2,16E-09	3,39E-12	1,37E-10	3,13E-12	3,25E-09	MND	1,52E-08	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,74E-12	0,00E+00	6,81E-11	-4,64E-11	2,09E-08
	Land Use Related impacts (dimensionless)	1,99E+00	2,56E-03	5,74E-02	2,84E-03	2,69E+00	MND	1,24E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,16E-03	0,00E+00	9,19E-03	-3,92E-02	1,71E+01

HTCE = Human Toxicity – cancer effects; HTnCE = Human Toxicity – non cancer effects; ETF = Ecotoxicity – freshwater; (potential comparative toxic unit)
 PM = Particulate Matter (Potential incidence of disease due to PM emissions);
 IRHH = Ionizing Radiation – human health effects (Potential Human exposure efficiency relative to U235);

Environmental impact categories explained

	Global Warming Potential	The global warming potential of a gas refers to the total contribution to global warming resulting from the emission of one unit of that gas relative to one unit of the reference gas, carbon dioxide, which is assigned a value of 1. It is split up in 4: - Global Warming Potential total (GWP-total) which is the sum of GWP-fossil, GWP-biogenic and GWP-luluc - Global Warming Potential fossil fuels (GWP-fossil) : The global warming potential related to greenhouse gas (GHG) emissions to any media originating from the oxidation and/or reduction of fossil fuels by means of their transformation or degradation (e.g. combustion, digestion, landfilling, etc). - Global Warming Potential biogenic (GWP-biogenic) : The global warming potential related to carbon emissions to air (CO₂, CO and CH₄) originating from the oxidation and/or reduction of aboveground biomass by means of its transformation or degradation (e.g. combustion, digestion, composting, landfilling) and CO₂ uptake from the atmosphere through photosynthesis during biomass growth – i.e. corresponding to the carbon content of products, biofuels or above ground plant residues such as litter and dead wood.¹ - Global Warming Potential land use and land use change (GWP-luluc): The global warming potential related to carbon uptakes and emissions (CO₂, CO and CH₄) originating from carbon stock changes caused by land use change and land use. This sub-category includes biogenic carbon exchanges from deforestation, road construction or other soil activities (including soil carbon emissions).
	Ozone Depletion	Destruction of the stratospheric ozone layer which shields the earth from ultraviolet radiation harmful to life. This destruction of ozone is caused by the breakdown of certain chlorine and/or bromine containing compounds (chlorofluorocarbons or halons), Which break down when they reach the stratosphere and then catalytically destroy ozone molecules.
	Acidification potential	Acid depositions have negative impacts on natural ecosystems and the man-made environment incl. buildings. The main sources for emissions of acidifying substances are agriculture and fossil fuel combustion used for electricity production, heating and transport.
	Eutrophication potential	The potential to cause over-fertilization of water and soil, which can result in increased growth of biomass and following adverse effects. It is split up in 3: - Eutrophication potential – freshwater: The potential to cause over-fertilization of freshwater, which can result in increased growth of biomass and following adverse effects. - Eutrophication potential – marine: The potential to cause over-fertilization of marine water, which can result in increased growth of biomass and following adverse effects. - Eutrophication potential – terrestrial: The potential to cause over-fertilization of soil, which can result in increased growth of biomass and following adverse effects.
	Photochemical ozone creation	Chemical reactions brought about by the light energy of the sun creating photochemical smog. The reaction of nitrogen oxides with hydrocarbons in the presence of sunlight to form ozone is an example of a photochemical reaction.
	Abiotic depletion potential for non-fossil resources	Consumption of non-renewable resources, thereby lowering their availability for future generations. Expressed in comparison to Antimony (Sb). The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.
	Abiotic depletion potential for fossil resources	Measure for the depletion of fossil fuels such as oil, natural gas, and coal. The stock of the fossil fuels is formed by the total amount of fossil fuels, expressed in Megajoules (MJ). The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.
	Ecotoxicity for aquatic fresh water	The impacts of chemical substances on ecosystems (freshwater). The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.
	Human toxicity (carcinogenic effects)	The impacts of chemical substances on human health via three parts of the environment: air, soil and water.

¹ Carbon exchanges from native forests shall be modelled under GWP - luluc (including connected soil emissions, derived products or residues), while their CO₂ uptake is excluded.

		<i>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.</i>
	Human toxicity (non-carcinogenic effects)	<i>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.</i>
	Particulate matter	<i>Accounts for the adverse health effects on human health caused by emissions of Particulate Matter (PM) and its precursors (NOx, SOx, NH3)</i>
	Resource depletion (water)	<i>Accounts for water use related to local scarcity of water as freshwater is a scarce resource in some regions, while in others it is not.</i> <i>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.</i>
	Ionizing radiation - human health effects	<i>This impact category deals mainly with the eventual impact on human health of low dose ionizing radiation of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.</i>
	Land use related impacts	<i>The indicator is the "soil quality index" which is the result of an aggregation of following four aspects:</i> - <i>Biotic production</i> - <i>Erosion resistance</i> - <i>Mechanical filtration</i> - <i>Groundwater</i> <i>The aggregation is done based on a JRC model. The four aspects are quantified through the LANCA model for land use.</i> <i>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.</i>

DETAILS OF THE UNDERLYING SCENARIOS USED TO CALCULATE THE IMPACTS

A1 – RAW MATERIAL SUPPLY

This module takes into account the extraction and processing of all raw materials and energy which occur upstream to the studied manufacturing process.

A2 – TRANSPORT TO THE MANUFACTURER

The raw materials are transported to the manufacturing site. Transport distances and types have been provided by Muylle Facon.

A3 – MANUFACTURING

The manufacturing process consists of 3 steps. First the different raw materials are weighed (= weighing process). During the mixing process the different raw materials are mixed in a metal drum with a plastic liner using consecutive mixing steps. The plastic liner is used in order to avoid contamination between the different grades. Solvesso® 100 is used for cleaning the different stirrers in the mixing process. Finally, the metal drums containing the blend or component A are emptied according to the desired final packaging (= filling process). The mixing process to obtain component A is shown in Figure 1. The accelerator or component B (i.e. hexamethylene diisocyanate) is bought in bulk by Muylle Facon, packed in the appropriate metal drums and sold together with component A.

The raw material's packaging are released at the manufacturing site. The production waste is 1,94% of the total production.

A4 – TRANSPORT TO THE BUILDING SITE

Fuel type and consumption of vehicle or vehicle type used for transport	Truck 7.5-16 ton 0,186 l diesel / km	Truck >32 ton 0,366 l diesel / km	Truck 7.5-16 ton 0,186 l diesel / km	Truck 3.5-7.5 ton 0,128 l diesel / km
Distance	100	100	35	35
Capacity utilisation (including empty returns)	50%	50%	50%	50%
Bulk density of transported products	Ecoinvent	Ecoinvent	Ecoinvent	Ecoinvent
Volume capacity utilisation factor	Ecoinvent	Ecoinvent	Ecoinvent	Ecoinvent

The B-PCR provides default transport scenarios for the transport to the building site for cases where specific data on transport are missing. The B-PCR provides scenario's for this life cycle stage. Hardwaxoils to cover and protect wooden surfaces are categorized as 'Finishing products: paints and varnishes' in table 5 of the B-PCR. The following transport steps apply:

- 10% directly to the construction site over 100 km with a 7.5-16 ton lorry (ecoinvent record: 'Transport, freight, lorry 7.5-16 metric ton, EURO5 {RER}| transport, freight, lorry 7.5-16 metric ton, EURO5 | Cut-off, U')
- 90% to a supplier over 100 km with a >32 ton lorry (ecoinvent record: 'Transport, freight, lorry >32 metric ton, EURO5 {RER}| transport, freight, lorry >32 metric ton, EURO5 | Cut-off, U')
- 80% of these 90% is transported over 35 km from supplier to construction site with a 7.5-16 ton lorry (ecoinvent record: 'Transport, freight, lorry 7.5-16 metric

ton, EURO5 {RER}| transport, freight, lorry 7.5-16 metric ton, EURO5 | Cut-off, U')

- 20% of these 90% is transported over 35 km from supplier to construction site with a 3.5-7.5 ton lorry (ecoinvent record: 'Transport, freight, lorry 3.5-7.5 metric ton, EURO5 {RER}| transport, freight, lorry 3.5-7.5 metric ton, EURO5 | Cut-off, U')

A5 – INSTALLATION IN THE BUILDING

A polishing machine is used to prepare the wooden surface and to apply the hardwaxoil. The surface is first treated with metal polishing nets to remove scratches. To apply the hardwaxoil the metal nets on the polishing machine are replaced by polishing pads. Finally, after waiting a few minutes to let the wood absorb the oil, cotton rags are used to remove all excess of oil. During the application 0,02509 kg oil per m² is used, of which 0,012 kg is absorbed in the wood and 0,01309 kg is taken up by the cotton rags and is discharged. The production, transport and end-of-life of this excess oil is also considered in this module.

In industrial applications the oil is sprayed on the wood using Rubio Monocoater Sprayspray machine. In this case you have less losses when using pads. However, in this EPD it is assumed that a polishing machine is used for all the applications.

At the construction site, packaging materials are released. Also a default value of 5% material losses have been taken into account, in line with MMG (Servaes R. et al., 2013).

Parts of the installation	quantity	Description
Processes necessary for the installation of the product	6,50E-02 kWh	Energy consumption of the polishing machine
Fixation materials	NA	
Joining materials	NA	
Treatments	0,0375 p 0,025 p 0,05 p	Polishing nets (nylon and zirconium oxide) Cotton rags (Recycled cotton) Polishing pads (PE foam)
Material losses	0,013 kg 5%	Material losses during the application (oil absorbed by the cotton rags) Material losses due to breakage etc
Packaging	4,65E-04 kg 1,23E-04 kg	Metal waste Plastic waste

Ancillary materials for installation (specified by material);	0,0375 p metal polish nets (nylon and zirconium oxide)	0,025 p cotton rags (woven cotton)	0,05 p polishing pads (PE foam)
Water use	Not applicable		
Other resource use	Not applicable		
Quantitative description of energy type (regional mix) and consumption during the installation process	The polishing machine consumes 65 W/m ²		
Waste materials on the building site before waste processing, generated by the product's installation (specified by type)	0,01309 kg product waste 5% product losses	4,65E-4 kg tin drums (finished product packaging)	1,23E-4 kg plastic bottles (finished product packaging)

Output materials (specified by type) as result of waste processing at the building site e.g. of collection for recycling, for energy recovery, disposal (specified by route)	100% incinerated 75% incinerated, 25% recycled	5% landfill, 95% recycling	5% landfill, 60% incineration, 35% recycling
Direct emissions to ambient air, soil and water	Not applicable		
Distance	Not applicable		

B – USE STAGE (EXCLUDING POTENTIAL SAVINGS)

B1: MND

B2: Depending on the use frequency of the wooden surface (e.g. persons passing over a floor) and the type of wood, a certain amount of the product detaches over time due to wear. This EPD assumes an average of 0,0024 kg/m² product losses every 5 years. These losses are considered as no impact losses in the model. Maintenance is done every 5 years with the same product to replace the losses due to use. In order to absorb 0,0024 kg/m² of oil in the wood, 0,005 kg/m² is used (0,0024 kg is absorbed in the wood and 0,0026 kg is discharged during the application). Over the RSL of 60 years, 11 re-applications are needed, this equals 0,055 kg of RMC Oil Plus 2C in total.

Cleaning with water and soap is not considered, as this is done for maintenance of the wooden surface and not of the oil itself.

B3:MND

B4: No replacement

B5:MND

B6: No operational energy use

B7: MND

C: END OF LIFE

The B-PCR provides default scenario's for waste processing of finishing layers such as paints and varnishes adhered to wooden, metal or plastic surfaces: 100% of finishing layers adhered to wooden, metal or plastic surfaces are incinerated.

C1: It is assumed that no impacts are related to the demolition of the product.

C2: The default scenario for finishing layers from B-PCR describes that the end-of-life waste is transported to a sorting facility over a distance of 30 km. Afterwards, 100% is transported to an incineration plant over a distance of 100 km.

C3: No recycling/reuse

C4: 100% incineration

Module C2 – Transport to waste processing					
Type of vehicle (truck/boat/etc.)	Fuel consumption (litres/km)	Distance (km)	Capacity utilisation (%)	Density of products (kg/m ³)	Assumptions
Truck 16-32 ton	0,260 l diesel/km	30	50%	ecoinvent scenario	ecoinvent scenario
Truck 16-32 ton	0,260 l diesel/km	50	50%	ecoinvent scenario	ecoinvent scenario
Truck 16-32 ton	0,260 l diesel/km	100	50%	ecoinvent scenario	ecoinvent scenario

End-of-life modules – C3 and C4

Parameter	Unit	Value
Wastes collected separately	kg	0
Wastes collected as mixed construction waste	kg	9,60E-03
Waste for re-use	kg	0
Waste for recycling	kg	0
Waste for energy recovery	kg	0
Waste for final disposal	kg	9,60E-03

D – BENEFITS AND LOADS BEYOND THE SYSTEM

BOUNDARIES

In module D, the benefits and loads beyond the system boundaries are quantified. Following waste streams per FU are 100% incinerated: 0,0096 kg hardwaxoil adhered to the wooden surface and 0,01309 kg hardwaxoil that remains in the polishing pads, cotton rags and polishing nets after application onto the wooden surface. In addition, the discharged hardwaxoil that remains in the cotton rags during the 5-yearly maintenance step is considered in module D. The benefits from the potential use of exported electricity and heat during incineration has been declared in module D.

Quantitative description of the loads beyond the system boundaries	Not applicable
Quantitative description of the benefits beyond the system boundaries	Avoided production of 0,104 MJ of heat using natural gas
	Avoided production of 0,052 kWh of Belgian electricity mix

ADDITIONAL INFORMATION ON RELEASE OF DANGEROUS SUBSTANCES TO INDOOR AIR, SOIL AND WATER DURING THE USE STAGE

INDOOR AIR

No significant emissions to indoor air are expected. This product has the Indoor Air Comfort Gold® label, based on test results from Eurofins. Criteria for this label mention that 3 days after the application the total VOC concentration in the air (CEN/TS 16516) is less than 1000 µg/m³ (460 µg/m³ for this product) and after 28 days less than 100 µg/m³ (6.1 µg/m³ for this product).

SOIL AND WATER

No emissions to soil or water are expected (CEN TC 351)

DEMONSTRATION OF VERIFICATION

EN 15804+A2 serves as the core PCR	
Independent verification of the environmental declaration and data according to standard EN ISO 14025:2010	
Internal ☐	External ☒
Third party verifier: Evert Vermaut (Vincotte) Jan Olieslagerslaan 35 1800 Vilvoorde, Belgium evermaut@vincotte.be	

APPLICATION UNIT

This paragraph gives information on the applied product and how the reference flow relate to different applications. For the hardwaxoil there is only one application, i.e. the colouring and protection of indoor wooden surfaces. The ratio to the functional unit is 1.

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General information

Owner of the EPD,
Responsible for the data, LCA and information

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EPD program
Program operator
Publisher of this EPD

B-EPD
FPS Health / DG Environment

Galileelaan 5/2
1210 Brussels
Belgium

www.environmentalproductdeclarations.eu

Contact programma operator

epd@environment.belgium.be

Based on following PCR documents

EN 15804+A2:2019
NBN/DTD B 08-001 and its complement
Insert others

PCR review conducted by

Federal Public Service of Health and Environment &
PCR Review committee

Author(s) of the LCA and EPD

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Identification of the project report

Life cycle assessment of Muylle Facon RMC oil Plus
2C, March 2021, version 1

Verification

External independent verification of the declaration and data
according to EN ISO 14025 and relevant PCR documents

Name of the third party verifier
Date of verification

Evert Vermaut (Vinçotte)
20.04.2021

www.b-epd.be

www.environmentalproductdeclarations.eu

Comparing EPDs is not possible unless they are conform to the same PCR and taking into account the building context.
The program operator cannot be held responsible for the information supplied by the owner of the EPD nor LCA practitioner.



LCA practitioner

www.vito.be



Building calculator of the
regional authorities

www.totem-building.be



Federal Public Service of
Health, Food Chain Safety and
Environment

www.b-epd.be

Digitally signed by Dieter
(De Lathauwer) (Signature)



Rubio Monocoat Accelerator - component B

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 29/09/2011 Revision date: 9/10/2024 Supersedes: 30/01/2024 Version: 4.3

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

1.1. Product identifier

Product form : Mixture
Trade name : Rubio Monocoat Accelerator - component B
UFI : YM00-P0D6-F006-F5MW

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

1.2.1. Relevant identified uses

Intended for general public

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Muylle Facon B.V.B.A. - Rubio Monocoat
Ambachtenstraat 58
B 8870 Izegem
Belgium
T +32 (0) 51 30 80 54, F +32 (0) 51 30 99 78
info@rubiomonocoat.com, www.rubiomonocoat.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145	13 11 26	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (inhalation:dust,mist) Category 4 H332

Skin sensitisation, Category 1 H317

Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation H335

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



Rubio Monocoat Accelerator - component B

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

	GHS07
CLP Signal word	: Warning
Contains	: Hexamethylene diisocyanate oligomers
Hazard statements (CLP)	: H317 - May cause an allergic skin reaction. H332 - Harmful if inhaled. H335 - May cause respiratory irritation.
Precautionary statements (CLP)	: P102 - Keep out of reach of children. P261 - Avoid breathing mist, spray. P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves, eye protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P501 - Dispose of contents/container in accordance with local regulations.
EUH-statements	: EUH204 - Contains isocyanates. May produce an allergic reaction.

Nordic countries regulation

Denmark

MAL code : 0-3

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Hexamethylene diisocyanate oligomers (28182-81-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
1,6-diisocyanatohexane (822-06-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hexamethylene diisocyanate oligomers	CAS-No.: 28182-81-2 EC-No.: 931-274-8 REACH-no: 01-2119485796-17	~ 100	Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=0,39 mg/l/4h) Skin Sens. 1, H317 STOT SE 3, H335
1,6-diisocyanatohexane	CAS-No.: 822-06-0 EC-No.: 212-485-8 EC Index-No.: 615-011-00-1 REACH-no: 01-2119457571-37	< 0,1	Acute Tox. 3 (Inhalation), H331 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits
1,6-diisocyanatohexane	CAS-No.: 822-06-0 EC-No.: 212-485-8 EC Index-No.: 615-011-00-1 REACH-no: 01-2119457571-37	(0,5 ≤ C ≤ 100) Skin Sens. 1; H317 (0,5 ≤ C ≤ 100) Resp. Sens. 1; H334

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If medical advice is needed, have product container or label at hand. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.
First-aid measures after skin contact	: If on skin : Wash with plenty of soap and water.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Give nothing to drink. Do NOT induce vomiting. (Irritation of the stomach possible.) Ask for medical advice.

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

Symptoms/effects after skin contact	: Repeated exposure may cause sensitization due to an allergic reaction of the skin.
Symptoms/effects after eye contact	: Risk of serious damage to eyes.
Symptoms/effects after ingestion	: May cause lung damage if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: On heating/burning: release of harmful gases/vapours. Combustible liquid.
Hazardous decomposition products in case of fire	: Nitrogen oxides. Carbon dioxide. Carbon monoxide. fume. hydrogen cyanide; hydrocyanic acid. Isocyanates.

5.3. Advice for firefighters

Protection during firefighting	: Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Avoid contact of substance with water. Use water moderately and if possible collect or contain it. Exercise caution when fighting any chemical fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Nitrile-rubber protective gloves.
Emergency procedures	: Do not get in eyes, on skin, or on clothing. Ventilate spillage area.

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6.1.2. For emergency responders

Protective equipment : Self-contained breathing apparatus. Use personal protective equipment as required.
Protective gloves. Safety glasses.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not allow water (or moist air) contact with this material. Prevent entry to sewers and public waters. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Liquid is absorbed with granules or similar. Collect in suitable containers. Rinse thoroughly with water. Further handling of spillage - see point 13.

Other information : See Section 1. See Section 8.2.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use personal protective equipment as required.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and face before break and at end of works. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : The floor of the depot should be impermeable and designed to form a water-tight basin.

Storage conditions : Store in dry, cool, well-ventilated area. Protect material from direct sunlight. Store in tightly closed packings. Do not allow product to spread into the environment. Do not re-use empty containers.

Incompatible products : Containers which are opened should be properly resealed and kept upright to prevent leakage.

Storage temperature : $\geq 5 - \leq 35$ °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

1,6-diisocyanatohexane (822-06-0)	
Belgium - Occupational Exposure Limits	
Local name	Diisocyanate d'hexaméthylène # Hexamethyleendi-isocyanaat
Limit value [mg/m³]	0,034 mg/m³
Limit value [ppm]	0,005 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Denmark - Occupational Exposure Limits	
Local name	Hexamethyleendiisocyanaat
Grænseværdi (8 timer) (mg/m³)	0,035 mg/m³

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1,6-diisocyanatohexane (822-06-0)	
Grænseværdi (8 timer) (ppm)	0,005 ppm
Grænseværdi (STEL) (mg/m³)	0,07 mg/m³
Grænseværdi (STEL) (ppm)	0,01 ppm
Switzerland - Occupational Exposure Limits	
Local name	Hexamethylendiisocyanat
Notation	B
Remark	Der Stoff kann gleichzeitig als Dampf und Aerosol vorliegen
Switzerland - BAT	
Local name	Hexamethylendiamin (nach Hydrolyse)
BAT	15 µg/g creatinine
USA - ACGIH - Occupational Exposure Limits	
Local name	Hexamethylene diisocyanate
ACGIH TWA (ppm)	0,005 ppm (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: URT irr; resp sens. Notations: BEI
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	1,6-HEXAMETHYLENE DIISOCYANATE
Biological Exposure Indices (BEI)	15 µg/g creatinine Parameter: 1,6-Hexamethylene diamine (with hydrolysis) - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2023

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Hexamethylene diisocyanate oligomers (28182-81-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1 mg/m³
Long-term - local effects, inhalation	0,5 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0,127 mg/l
PNEC aqua (marine water)	0,0127 mg/l
PNEC aqua (intermittent, freshwater)	1,27 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,2667 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0532 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	38,28 mg/l

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1,6-diisocyanatohexane (822-06-0)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	0,07 mg/m³
Acute - local effects, inhalation	0,07 mg/m³
Long-term - systemic effects, inhalation	0,035 mg/m³
Long-term - local effects, inhalation	0,035 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0,0774 mg/l
PNEC aqua (marine water)	0,00774 mg/l
PNEC aqua (intermittent, freshwater)	0,774 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,001334 mg/kg dwt
PNEC sediment (marine water)	0,01334 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0026 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	8,42 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

During spraying wear suitable respiratory equipment.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection			
Type	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear anti-static discharges clothing and shoes. Foresee ground with earth

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
protective gloves	Nitrile rubber (NBR)	5 (> 240 minutes)	>0,3		EN 374-2

Other skin protection

Materials for protective clothing:

Impervious footwear must be worn

8.2.2.3. Respiratory protection

Respiratory protection:

Usually not necessary. In case of insufficient ventilation or spraying: Use approved mask with particle filter P2 (EN149). The filters have a limited service life (must be changed). Read the manufacturer's instructions.

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Respiratory protection

Device	Filter type	Condition	Standard
approved mask with particle filter A	Type P2		EN 149

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Try to prevent the material from entering drains or water courses.

Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless.
Appearance	: Liquid.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: < -20 °C
Freezing point	: Not available
Boiling point	: > 150 °C
Flammability	: Not available
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: > 228 °C Closed cup
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not tested
Viscosity, kinematic	: Not available
Viscosity, dynamic	: ≈ 600 mPa·s 25°C
Solubility	: Reacts with water.
Log Kow	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1,1 kg/l
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 0 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No specific measures identified.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

10.2. Chemical stability

Stable under normal conditions. See Section 7.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Hazardous decomposition products in case of fire.

10.5. Incompatible materials

alcohols. Acids. Bases.

10.6. Hazardous decomposition products

carbon oxides (CO and CO₂). nitrogen oxides (NO_x).

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
 Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
 Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

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ATE CLP (dust,mist)	1,5 mg/l/4h
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Hexamethylene diisocyanate oligomers (28182-81-2)

LD50 oral rat	> 2500 mg/kg OECD 423 (female)
LD50 dermal rat	> 2000 mg/kg OECD 402
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	0,39 mg/l/4h OECD 403 (female)

1,6-diisocyanatohexane (822-06-0)

LD50 oral rat	959 mg/kg bodyweight OECD 401
LD50 dermal rat	> 7000 mg/kg bodyweight
LD50 dermal rabbit	> 7000 mg/kg bodyweight OECD 402
LC50 Inhalation - Rat	0,124 mg/l/4h OECD 403

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
 pH: Not tested
 Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
 pH: Not tested
 Respiratory or skin sensitisation : May cause an allergic skin reaction.
 Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
 Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
 Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
 STOT-single exposure : May cause respiratory irritation.

Hexamethylene diisocyanate oligomers (28182-81-2)

STOT-single exposure	May cause respiratory irritation.
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1,6-diisocyanatohexane (822-06-0)

STOT-single exposure	May cause respiratory irritation.
----------------------	-----------------------------------

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

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1,6-diisocyanatohexane (822-06-0)

NOAEC (inhalation, rat, gas, 90 days)	0,005 ppmv/6h/day
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Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product does not have any adverse effects on the aquatic organisms.
 Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)
 Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Hexamethylene diisocyanate oligomers (28182-81-2)

LC50 fish 1	8,9 mg/l Brachydanio rerio
EC50 Daphnia 1	127 mg/l Daphnia magna (48h static / EU C.2)
EC50 other aquatic organisms 1	3828 mg/l Activated sludge, 3h, OECD 209 method
EC50 other aquatic organisms 2	> 1000 mg/l Scenedesmus subspicatus, 72h, DIN 38412
ErC50 (algae)	> 1000 mg/l Desmodesmus subspicatus (72h)

1,6-diisocyanatohexane (822-06-0)

EC50 other aquatic organisms 1	842 mg/l Bakterie (3h)
EC50 72h - Algae [1]	> 77,4 mg/l
ErC50 (algae)	> 77,4 mg/l Desmodesmus subspicatus (72h)
NOEC chronic algae	11,7 mg/l Desmodesmus subspicatus (72h)

12.2. Persistence and degradability

Hexamethylene diisocyanate oligomers (28182-81-2)

Biodegradation	1 % (28 days)
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1,6-diisocyanatohexane (822-06-0)

Persistence and degradability	Not readily biodegradable.
Biodegradation	42 % (28 days)

12.3. Bioaccumulative potential

Hexamethylene diisocyanate oligomers (28182-81-2)

BCF fish 1	3,2 mg/l
------------	----------

1,6-diisocyanatohexane (822-06-0)

BCF fish 1	58 mg/l
Log Pow	1,08 (QSAR)
Bioaccumulative potential	Slightly bioaccumulative.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.4. Mobility in soil

Hexamethylene diisocyanate oligomers (28182-81-2)

Log Koc	7,8
---------	-----

1,6-diisocyanatohexane (822-06-0)

Log Koc	5861
---------	------

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

European List of Waste (LoW, EC 2000/532) : 08 05 01* - waste isocyanates
H code : Auto detect - Auto detect

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : Not applicable

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Transport by sea

Transport regulations (IMDG) : Not applicable

Air transport

Transport regulations (IATA) : Not applicable

Inland waterway transport

No data available

Rail transport

Transport regulations (RID) : Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

Contains no substance(s) listed on the REACH Candidate List

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

VOC content : 0 g/l

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category : B(2) - toxic for aquatic organisms

SZW-list of carcinogenic substances : None of the components are listed

SZW-list of mutagenic substances : None of the components are listed

NON-exhaustive list of reprotoxic substances - : None of the components are listed

Breastfeeding

SZW-lijst van reprotoxische stoffen – : None of the components are listed

Vruchtbaarheid

NON-exhaustive list of reprotoxic substances - : None of the components are listed

Development

Denmark

MAL code : 0-3

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material
The requirements from the Danish Working Environment Authorities regarding work with epoxy resins and isocyanates must be observed during use and disposal

15.2. Chemical safety assessment

No additional information available

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	The classification complies with		
	The classification complies with		ATP 18

Full text of H- and EUH-statements:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
EUH204	Contains isocyanates. May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

1. Name and Address of Exporter				2. PHYTOSANITARY CERTIFICATE		
Name HORNING PARKET A/S		Address CHRISTIANSMINDEVEJ 12 8660 Skanderborg		2.a IMSOC Reference PHYTO.DK.2026.0007570		
Country Denmark		ISO Code DK		2.b Local Reference Number Invoice nr 13135591/13135599		
3. Declared Name and Address of Consignee				4. Plant Protection Organisation of		
Name Retail Fashion Group S.A.P.I DE C.V.		Address Av. Ejército Nacional No. Ext. 843, No. Int. B Corp. ANTARA II P3 11520 Miguel Hidalgo		Authority Landbrugs- og Fiskeristyrelsen - Danish Agricultural and Fisheries Agency (DK00000)		
Country Mexico		ISO Code MX		Country Denmark (DK)		
				to Plant Protection Organisation of		
				Authority Secretaría de Agricultura y Desarrollo Rural (SADER) (MX00000)		
				Country Mexico (MX)		
				Transit countries		
6. Declared Means of Conveyance				5. Place of Origin		
Mode	International transport document	Identification		Country Germany (DE)		
Vessel						
7. Declared Point of Entry						
Country Mexico (MX)						
8. Distinguishing marks; number and description of packages; name of produce; botanical name of plants						9. Quantity declared
#1. Commodity 44092999	Product type Wood	Net weight 984 kg	Number of packages 2 Pallet	Country of Origin Germany (DE)	Total net weight	
EPPO Code PIUSI <i>Pinus sylvestris</i>	Quantity	Gross volume 1.5 m3	Establishment of Origin	Distinguishing marks	984 kg	
	Intended use	State of processing				Total number of packages
						2 Pallet
						Total quantity
						Total gross volume
						1.5 m3
10. This is to certify that the plants, plant products or other regulated articles described herein have been inspected and/or tested according to appropriate official procedures and are considered to be free from the quarantine pests specified by the importing contracting party and to conform with the current phytosanitary requirements of the importing contracting party, including those for regulated non-quarantine pests.						
☒ They are deemed to be practically free from other pests.						
11. Additional declaration No additional requirements						
DISINFESTATION AND/OR DISINFECTION TREATMENT				Place of issue		
12. Treatment type 1. Kiln drying				Denmark		
		44092999	PIUSI <i>Pinus sylvestris</i>	Inspection date		
				Date		
13. Chemical (active ingredient) 1.				09 July 2026 12:00:09 +02 (Europe/Luxembourg)		
14. Duration and temperature 1. 28 day / 60 °C						
15. Concentration 1.				☒ No financial liability with respect to this certificate shall attach to Landbrugs- og Fiskeristyrelsen - Danish Agricultural and Fisheries Agency or to any of its officers or representatives.		
16. Date 1.						
17. Additional information 1.				Name and signature of authorised officer Hanne Rahbek Jensen		
				Stamp of organisation Augustenborg Digitally signed by: Styrelsen for Fødevarer, Landbrug og Fiskeri on 2026-07-09 10:00:28 UTC		



Rubio Monocoat Accelerator - component B

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 29/09/2011 Revision date: 9/10/2024 Supersedes: 30/01/2024 Version: 4.3

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

1.1. Product identifier

Product form : Mixture
Trade name : Rubio Monocoat Accelerator - component B
UFI : YM00-P0D6-F006-F5MW

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

1.2.1. Relevant identified uses

Intended for general public

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Muylle Facon B.V.B.A. - Rubio Monocoat
Ambachtenstraat 58
B 8870 Izegem
Belgium
T +32 (0) 51 30 80 54, F +32 (0) 51 30 99 78
info@rubiomonocoat.com, www.rubiomonocoat.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Australia	NSW Poisons Information Centre The Children's Hospital at Westmead	Locked Bag 4001 NSW 2145	13 11 26	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	Only for healthcare professionals

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (inhalation:dust,mist) Category 4 H332

Skin sensitisation, Category 1 H317

Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation H335

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



Rubio Monocoat Accelerator - component B

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	GHS07
CLP Signal word	: Warning
Contains	: Hexamethylene diisocyanate oligomers
Hazard statements (CLP)	: H317 - May cause an allergic skin reaction. H332 - Harmful if inhaled. H335 - May cause respiratory irritation.
Precautionary statements (CLP)	: P102 - Keep out of reach of children. P261 - Avoid breathing mist, spray. P271 - Use only outdoors or in a well-ventilated area. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves, eye protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P501 - Dispose of contents/container in accordance with local regulations.
EUH-statements	: EUH204 - Contains isocyanates. May produce an allergic reaction.

Nordic countries regulation

Denmark

MAL code : 0-3

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
Hexamethylene diisocyanate oligomers (28182-81-2)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
1,6-diisocyanatohexane (822-06-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hexamethylene diisocyanate oligomers	CAS-No.: 28182-81-2 EC-No.: 931-274-8 REACH-no: 01-2119485796-17	~ 100	Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=0,39 mg/l/4h) Skin Sens. 1, H317 STOT SE 3, H335
1,6-diisocyanatohexane	CAS-No.: 822-06-0 EC-No.: 212-485-8 EC Index-No.: 615-011-00-1 REACH-no: 01-2119457571-37	< 0,1	Acute Tox. 3 (Inhalation), H331 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317

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Specific concentration limits:

Name	Product identifier	Specific concentration limits
1,6-diisocyanatohexane	CAS-No.: 822-06-0 EC-No.: 212-485-8 EC Index-No.: 615-011-00-1 REACH-no: 01-2119457571-37	(0,5 ≤ C ≤ 100) Skin Sens. 1; H317 (0,5 ≤ C ≤ 100) Resp. Sens. 1; H334

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If medical advice is needed, have product container or label at hand. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.
First-aid measures after skin contact	: If on skin : Wash with plenty of soap and water.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Give nothing to drink. Do NOT induce vomiting. (Irritation of the stomach possible.) Ask for medical advice.

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

Symptoms/effects after skin contact	: Repeated exposure may cause sensitization due to an allergic reaction of the skin.
Symptoms/effects after eye contact	: Risk of serious damage to eyes.
Symptoms/effects after ingestion	: May cause lung damage if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: On heating/burning: release of harmful gases/vapours. Combustible liquid.
Hazardous decomposition products in case of fire	: Nitrogen oxides. Carbon dioxide. Carbon monoxide. fume. hydrogen cyanide; hydrocyanic acid. Isocyanates.

5.3. Advice for firefighters

Protection during firefighting	: Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Avoid contact of substance with water. Use water moderately and if possible collect or contain it. Exercise caution when fighting any chemical fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Nitrile-rubber protective gloves.
Emergency procedures	: Do not get in eyes, on skin, or on clothing. Ventilate spillage area.

Rubio Monocoat Accelerator - component B

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

6.1.2. For emergency responders

Protective equipment : Self-contained breathing apparatus. Use personal protective equipment as required.
Protective gloves. Safety glasses.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not allow water (or moist air) contact with this material. Prevent entry to sewers and public waters. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Liquid is absorbed with granules or similar. Collect in suitable containers. Rinse thoroughly with water. Further handling of spillage - see point 13.
Other information : See Section 1. See Section 8.2.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Use personal protective equipment as required.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and face before break and at end of works. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : The floor of the depot should be impermeable and designed to form a water-tight basin.
Storage conditions : Store in dry, cool, well-ventilated area. Protect material from direct sunlight. Store in tightly closed packings. Do not allow product to spread into the environment. Do not re-use empty containers.
Incompatible products : Containers which are opened should be properly resealed and kept upright to prevent leakage.
Storage temperature : $\geq 5 - \leq 35$ °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

1,6-diisocyanatohexane (822-06-0)	
Belgium - Occupational Exposure Limits	
Local name	Diisocyanate d'hexaméthylène # Hexamethyleendi-isocyanaat
Limit value [mg/m³]	0,034 mg/m³
Limit value [ppm]	0,005 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
Denmark - Occupational Exposure Limits	
Local name	Hexamethyleendiisocyanaat
Grænseværdi (8 timer) (mg/m³)	0,035 mg/m³

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

1,6-diisocyanatohexane (822-06-0)	
Grænseværdi (8 timer) (ppm)	0,005 ppm
Grænseværdi (STEL) (mg/m³)	0,07 mg/m³
Grænseværdi (STEL) (ppm)	0,01 ppm
Switzerland - Occupational Exposure Limits	
Local name	Hexamethylendiisocyanat
Notation	B
Remark	Der Stoff kann gleichzeitig als Dampf und Aerosol vorliegen
Switzerland - BAT	
Local name	Hexamethylendiamin (nach Hydrolyse)
BAT	15 µg/g creatinine
USA - ACGIH - Occupational Exposure Limits	
Local name	Hexamethylene diisocyanate
ACGIH TWA (ppm)	0,005 ppm (IFV - Inhalable fraction and vapor)
Remark (ACGIH)	TLV® Basis: URT irr; resp sens. Notations: BEI
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	1,6-HEXAMETHYLENE DIISOCYANATE
Biological Exposure Indices (BEI)	15 µg/g creatinine Parameter: 1,6-Hexamethylene diamine (with hydrolysis) - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2023

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Hexamethylene diisocyanate oligomers (28182-81-2)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1 mg/m³
Long-term - local effects, inhalation	0,5 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0,127 mg/l
PNEC aqua (marine water)	0,0127 mg/l
PNEC aqua (intermittent, freshwater)	1,27 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,2667 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0532 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	38,28 mg/l

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1,6-diisocyanatohexane (822-06-0)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	0,07 mg/m³
Acute - local effects, inhalation	0,07 mg/m³
Long-term - systemic effects, inhalation	0,035 mg/m³
Long-term - local effects, inhalation	0,035 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	0,0774 mg/l
PNEC aqua (marine water)	0,00774 mg/l
PNEC aqua (intermittent, freshwater)	0,774 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,001334 mg/kg dwt
PNEC sediment (marine water)	0,01334 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0026 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	8,42 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

During spraying wear suitable respiratory equipment.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection			
Type	Use	Characteristics	Standard
Safety glasses	Droplet	With side shields	EN 166

8.2.2.2. Skin protection

Skin and body protection:

Wear anti-static discharges clothing and shoes. Foresee ground with earth

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
protective gloves	Nitrile rubber (NBR)	5 (> 240 minutes)	>0,3		EN 374-2

Other skin protection

Materials for protective clothing:

Impervious footwear must be worn

8.2.2.3. Respiratory protection

Respiratory protection:

Usually not necessary. In case of insufficient ventilation or spraying: Use approved mask with particle filter P2 (EN149). The filters have a limited service life (must be changed). Read the manufacturer's instructions.

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Respiratory protection			
Device	Filter type	Condition	Standard
approved mask with particle filter A	Type P2		EN 149

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Try to prevent the material from entering drains or water courses.

Other information:

Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: colourless.
Appearance	: Liquid.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: < -20 °C
Freezing point	: Not available
Boiling point	: > 150 °C
Flammability	: Not available
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: > 228 °C Closed cup
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not tested
Viscosity, kinematic	: Not available
Viscosity, dynamic	: ≈ 600 mPa·s 25°C
Solubility	: Reacts with water.
Log Kow	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1,1 kg/l
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content : 0 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No specific measures identified.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

10.2. Chemical stability

Stable under normal conditions. See Section 7.

10.3. Possibility of hazardous reactions

Stable under normal conditions of use.

10.4. Conditions to avoid

Hazardous decomposition products in case of fire.

10.5. Incompatible materials

alcohols. Acids. Bases.

10.6. Hazardous decomposition products

carbon oxides (CO and CO₂). nitrogen oxides (NO_x).

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
 Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
 Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

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ATE CLP (dust,mist)	1,5 mg/l/4h
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Hexamethylene diisocyanate oligomers (28182-81-2)

LD50 oral rat	> 2500 mg/kg OECD 423 (female)
LD50 dermal rat	> 2000 mg/kg OECD 402
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	0,39 mg/l/4h OECD 403 (female)

1,6-diisocyanatohexane (822-06-0)

LD50 oral rat	959 mg/kg bodyweight OECD 401
LD50 dermal rat	> 7000 mg/kg bodyweight
LD50 dermal rabbit	> 7000 mg/kg bodyweight OECD 402
LC50 Inhalation - Rat	0,124 mg/l/4h OECD 403

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
 pH: Not tested
 Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
 pH: Not tested
 Respiratory or skin sensitisation : May cause an allergic skin reaction.
 Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
 Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
 Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
 STOT-single exposure : May cause respiratory irritation.

Hexamethylene diisocyanate oligomers (28182-81-2)

STOT-single exposure	May cause respiratory irritation.
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1,6-diisocyanatohexane (822-06-0)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

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1,6-diisocyanatohexane (822-06-0)

NOAEC (inhalation, rat, gas, 90 days)	0,005 ppmv/6h/day
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Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product does not have any adverse effects on the aquatic organisms.
 Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)
 Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Hexamethylene diisocyanate oligomers (28182-81-2)

LC50 fish 1	8,9 mg/l Brachydanio rerio
EC50 Daphnia 1	127 mg/l Daphnia magna (48h static / EU C.2)
EC50 other aquatic organisms 1	3828 mg/l Activated sludge, 3h, OECD 209 method
EC50 other aquatic organisms 2	> 1000 mg/l Scenedesmus subspicatus, 72h, DIN 38412
ErC50 (algae)	> 1000 mg/l Desmodesmus subspicatus (72h)

1,6-diisocyanatohexane (822-06-0)

EC50 other aquatic organisms 1	842 mg/l Bakterie (3h)
EC50 72h - Algae [1]	> 77,4 mg/l
ErC50 (algae)	> 77,4 mg/l Desmodesmus subspicatus (72h)
NOEC chronic algae	11,7 mg/l Desmodesmus subspicatus (72h)

12.2. Persistence and degradability

Hexamethylene diisocyanate oligomers (28182-81-2)

Biodegradation	1 % (28 days)
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1,6-diisocyanatohexane (822-06-0)

Persistence and degradability	Not readily biodegradable.
Biodegradation	42 % (28 days)

12.3. Bioaccumulative potential

Hexamethylene diisocyanate oligomers (28182-81-2)

BCF fish 1	3,2 mg/l
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1,6-diisocyanatohexane (822-06-0)

BCF fish 1	58 mg/l
Log Pow	1,08 (QSAR)
Bioaccumulative potential	Slightly bioaccumulative.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

12.4. Mobility in soil

Hexamethylene diisocyanate oligomers (28182-81-2)

Log Koc	7,8
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1,6-diisocyanatohexane (822-06-0)

Log Koc	5861
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

European List of Waste (LoW, EC 2000/532) : 08 05 01* - waste isocyanates
H code : Auto detect - Auto detect

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Transport regulations (ADR) : Not applicable

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Transport by sea

Transport regulations (IMDG) : Not applicable

Air transport

Transport regulations (IATA) : Not applicable

Inland waterway transport

No data available

Rail transport

Transport regulations (RID) : Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

Contains no substance(s) listed on the REACH Candidate List

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

VOC content : 0 g/l

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category : B(2) - toxic for aquatic organisms

SZW-list of carcinogenic substances : None of the components are listed

SZW-list of mutagenic substances : None of the components are listed

NON-exhaustive list of reprotoxic substances - : None of the components are listed

Breastfeeding

SZW-lijst van reprotoxische stoffen – : None of the components are listed

Vruchtbaarheid

NON-exhaustive list of reprotoxic substances - : None of the components are listed

Development

Denmark

MAL code : 0-3

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material
The requirements from the Danish Working Environment Authorities regarding work with epoxy resins and isocyanates must be observed during use and disposal

15.2. Chemical safety assessment

No additional information available

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	The classification complies with		
	The classification complies with		ATP 18

Full text of H- and EUH-statements:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
EUH204	Contains isocyanates. May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Oil Plus 2C

Protects and colours your interior wood in one single layer

Oil Plus 2C is a VOC-free hardwax oil of the newest generation which colours and protects your wood in one single layer. It's perfectly suitable for high traffic zones and can be applied to all interior wood surfaces (furniture, countertops, tabletops, stairs, walls, floors, etc.), almost all wood types and wood species (solid wood, veneer, MDF, etc.). The combination of the oil (A) and the accelerator (B) guarantees a quick curing for optimal protection.



Can also be applied as renovation and maintenance, on surfaces which have already been treated with Rubio Monocoat oil.

PRODUCT INFORMATION

› Specific characteristics

- Colours and protects in 1 layer
- 40 standard colours that can be blended for unlimited possibilities
- Enhances the natural look and feel of the wood
- Environmentally friendly: 0% VOC
- Does not contain any water or solvents
- Easy to maintain
- No overlaps or starting marks
- Durable protection
- Minimal use: 30 - 50 m²/L
- Can be applied to almost all wood types and wood species (solid wood, veneer, mdf, etc.)
- Can be applied to all interior wood surfaces (furniture, tabletops, stairs, walls, floors, etc.)

› Technical characteristics

<u>Oil Plus 2C (A)</u>	<u>Accelerator (B)</u>
• Physical state at 20°C: liquid • Odour: oily • Flash point: > 100°C • Density: > 0,9 kg/L • VOC content: 0 g/L	• Physical state at 20°C: liquid • Colour: clear • Odour: none • Flash point: > 160°C (closed cup) • VOC content: 0 g/L • Giscod Oil Plus 2C A + B- comp: Ö10/DD+

DRYING TIME	12-24h
CURING TIME	5 days (80% in 2 days)
APPLICATION INFORMATION	All vertical and horizontal surfaces (e.g. floors, tabletops, furniture, bathrooms, kitchens, stairs, etc.)
CONSUMPTION	30 - 50 m²/liter*
WORKING TEMPERATURE	8 - 30°C

HUMIDITY APPLICATION RANGE	35% - 60%
WOOD HUMIDITY	8% - 12%
STORAGE	Min. + 5°C, max. + 30°C The product can be stored up to 36 months in dry conditions and in its original packaging
CLEANING	Earliest after 2 days: dry cleaning (vacuum cleaning) Earliest after 5 days: cleaning with water and Universal Soap, Surface Care, All Natural Wood Cleaner or All Natural Wood Cleaner Spray
ADVANTAGES	Great wear-, water- and heat resistance
REMARKS	Oil Plus 2C may be used for a maximum of 4-6 hours after mixing A & B component together.

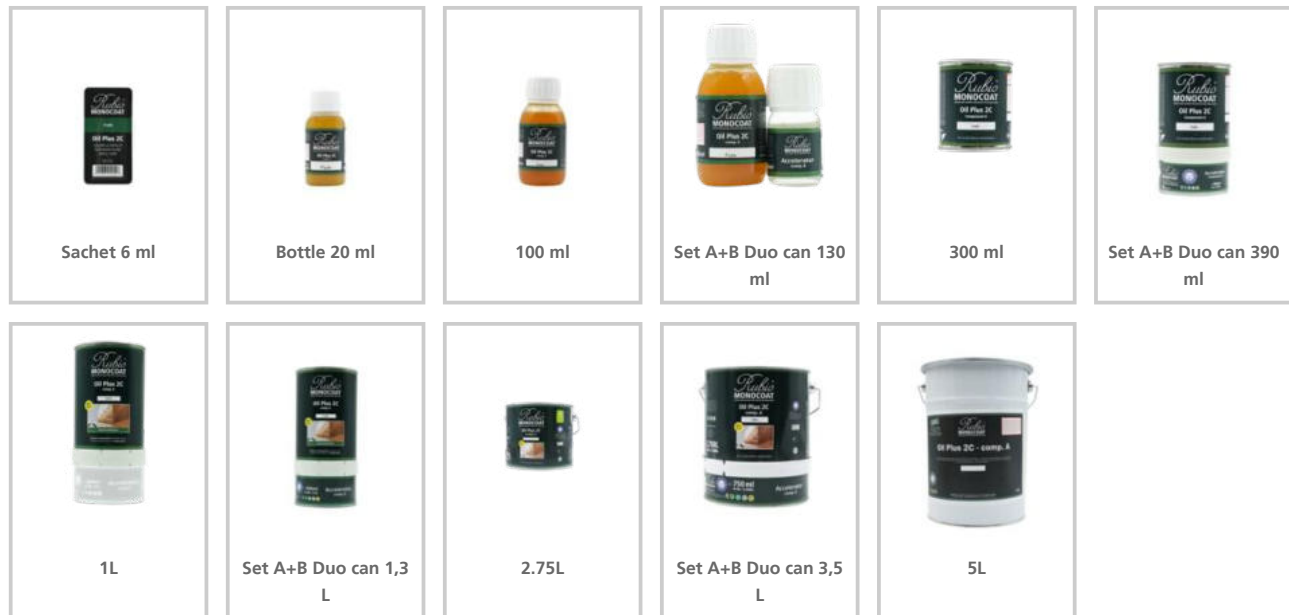
** These usages are merely indicative. Results depend on wood type, sanding and method of preparation. It is always recommended to make a sample in order to calculate the exact usage.*

> Colours on Oak



Colours only serve as an example and we recommend doing a test on identical sanded wood.

› Packaging



› Storage

The product can be stored up to 36 months in dry conditions and in its original packaging. Keep away from frost.

APPLICATION INFORMATION

› Instructions

› Instructions Furniture, stairs & countertops

STEP 1 Sand the surface scratch-free. Finish with screening net 100 to 150, depending on the sanding method used.

STEP 2 Vacuum thoroughly, eliminate remains of dust with Cleaner and wait until the surface is completely dry (check the technical datasheet of Cleaner before use).

STEP 3 Stir the A component until a homogenous mixture is obtained. Carefully mix the two components (1 to 2 minutes) with a ratio of appr. 3 units A to 1 unit B.

STEP 4 Spread out a small quantity of Oil Plus 2C using a spatula, a beige/red Rubio Monocoat Scrubby pad or hand sander with a small beige 5.9 inch Rubio Monocoat pad (you can also use the Rubio Monocoat Mouse Pad for smaller objects and corners).

**Spatula method: spread out Oil Plus 2C with a stainless spatula in zones which can be finished in maximum 30 minutes (including step 5).*

**For ceilings and walls you can use our Rubio Monocoat Brush and Rubio Monocoat beige Scrubby pad to spread out the oil.*

STEP 5 Let absorb during a few minutes. Wipe away all excess oil with a cloth or a hand sander with a small white 5.9 inch Rubio Monocoat pad. Finish off with a cloth within max. 30 minutes. The surface should feel non-sticky!

› Instructions floors

STEP 1 Sand the surface scratch-free. Finish with screening net 100.

STEP 2 Vacuum thoroughly, eliminate remains of dust with Cleaner and wait until the surface is completely dry (check the technical datasheet of Cleaner before use).

STEP 3 Stir the A component until a homogenous mixture is obtained. Carefully mix the two components (1 to 2 minutes) with a ratio of appr. 3 units A to 1 unit B.

STEP 4 Work in zones of 5-10 m². Start each zone by treating the borders with a beige or red Rubio Monocoat Scrubby pad. Then apply a small quantity of Oil Plus 2C every other 0,5 meter using a brush. Spread out plankwise using a polishing machine with a beige or red 16 inch Rubio Monocoat pad.

**Spatula method: spread out Oil Plus 2C with a stainless spatula in zones which can be finished in maximum 30 minutes (including step 5 and 6).*

STEP 5 Thoroughly remove all excess oil with a cloth or a polishing machine with a white 16 inch Rubio Monocoat pad. The surface should feel non-sticky!

STEP 6 After having finished all the zones, pass again with a new white Rubio Monocoat pad. Now the surface should feel non-sticky.

› Instructions Repair and renovation

If the Oil Plus 2C treated surface shows much wear and tear, or needs a colour repair, maintain with Oil Plus 2C in the original colour.

STEP 1 Use Deep Cleaner to clean the wooden surface until it is spot-free. If there are still some stains, repeat the cleaning process or use one of our spot removers (Grease Remover, Limespot Remover or Tannin Remover). Please check the technical datasheet before use.

**If the wooden object is too much damaged or neglected, you will first need to polish the surface with the same screening grit as you initially finished your wooden object with. Please consult your professional if necessary.*

STEP 2 Remove the dissolved dirt by using a damp cloth or a mop and clear water and allow the surface to dry well (± 30 minutes at a temperature of 20°C and in a well-ventilated room).

STEP 3 Stir the A component until a homogenous mixture is obtained. Carefully mix the two components (1 to 2 minutes) with a ratio of appr. 3 units A to 1 unit B.

STEP 4 Spread out a small quantity of Oil Plus 2C using a beige/red Rubio Monocoat Scrubby pad or hand sander with a small beige 5.9

inch Rubio Monocoat pad (you can also use the Rubio Monocoat Mouse Pad for smaller objects and corners).

STEP 5 Let absorb during a few minutes. Wipe away all excess oil with a cloth or a hand sander with a white Rubio Monocoat pad. Finish off with a cloth within max. 30 minutes. The surface should feel non-sticky!

› Industrial application

If you want to apply this product in an industrial manner, we advise you to get in contact with our technical service team.

› Tips & Tricks

- The product may NOT be diluted, unless indicated in the instructions.
- Stir the product well before application.
- When using several containers at one site, it is required to mix them for an even result.
- Please consult your distributor if you want to use the A component without the B component (accelerator).
- After application, the surface may appear a bit glossy. This will disappear after cleaning 2-3 times with Universal Soap, Surface Care, All Natural Wood Cleaner or All Natural Wood Cleaner Spray.
- If you want a more intense colour, use WoodPrep instead of Cleaner. For more info please consult the technical datasheet of WoodPrep.
- For greasy wood species (e.g. teak, iroko, kambala, wengé, eucalyptus, merbau, afzelia, afrormosia, etc.), use Deep Cleaner instead of Cleaner. For more info please consult the technical datasheet of Deep Cleaner.
- Tannin Primer can be used before applying Oil Plus 2C for horizontal surfaces often subjected to liquids, such as worktops or bathroom furniture. For more info please consult the technical datasheet of Tannin Primer.
- The smoother the surface is, the less oil and pigments will penetrate in the wood resulting in a less coloured surface.
- Our oils are developed with environmentally friendly ingredients. However, some people can be allergic to certain elements. Therefore, we advise wearing gloves to protect your skin while applying the A+B component.
- The product can also be applied with a spray gun.



WARNING

Cloths and other application tools, saturated with oil, may spontaneously combust. After usage, immerse them in water and leave them for a while before disposing of them.

INFORMATIONAL

Adhesion according to DIN EN ISO 2409: classification 0

Oil Plus 2C was tested for its scratch resistance with a cross-cut tester. The classifications for this test range from 0 (excellent) to 5 (poor) and we achieved the highest rating (classification 0). This positive evaluation of the test confirms that no product was detached from the surface and that the coating remained intact.

› Consumption

		Indicative consumption*
--	--	-------------------------

OIL PLUS 2C COMP. A	6 ml	tester
	20 ml	0.8 m ²
	100 ml	3 - 5 m ²
	300 ml	9 - 15 m ²
	1 L	30 - 50 m ²
	5 L	150 - 250 m ²
OIL PLUS 2C SET	390 ml: 300 ml Oil Plus 2C (A) and 90 ml Accelerator (B)	11.7 - 19.5 m ²
	1,3 L: 1 L Oil Plus 2C (A) and 0,3 L Accelerator (B)	39 - 65 m ²
	3,5 L: 2,75 L Oil Plus 2C (A) and 0,75 L Accelerator (B)	105 - 175 m ²
ACCELERATOR COMP. B	90 ml	
	300 ml	
	750 ml	
	1 L	
	5 L	

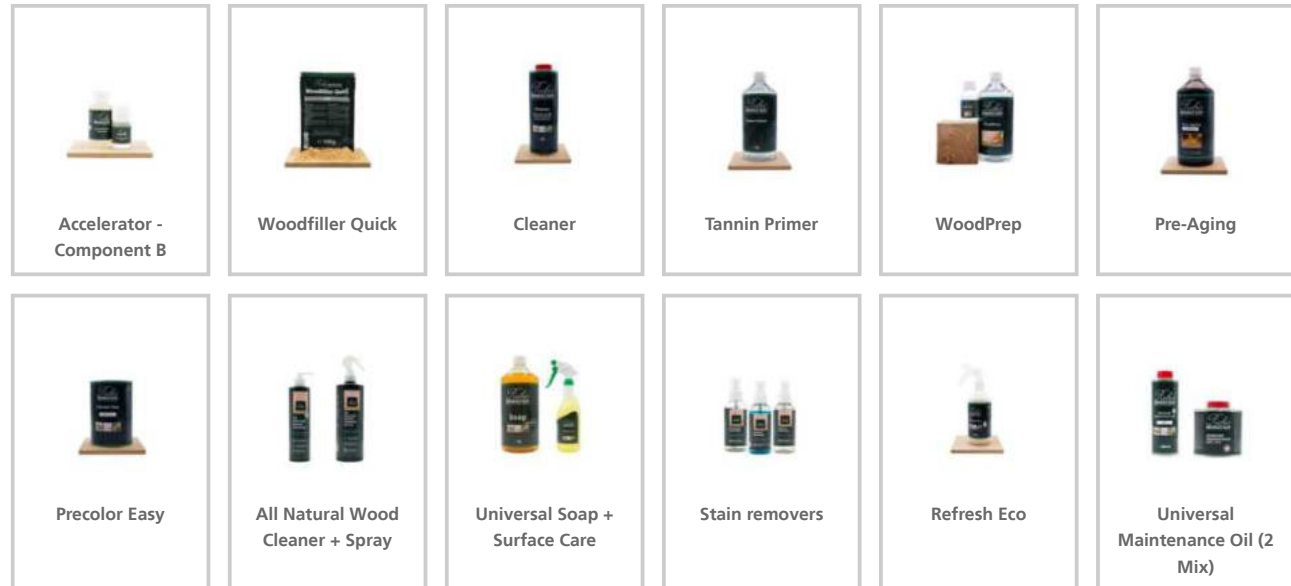
* These usages are merely indicative. Results depend on wood type, sanding and method of preparation. It is always recommended to make a sample in order to calculate the exact usage.

› Tools

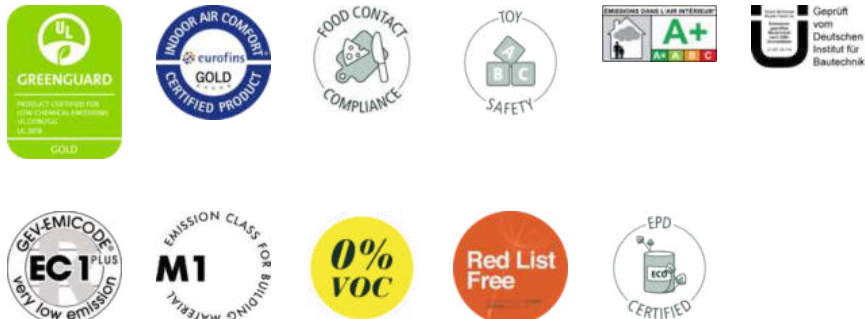
					
White Wiping Rag	Oil Removal Cloth	Round pad beige	Round pad red	Round pad white	Scrubby Beige
					
Scrubby Red	Mouse Pad Yellow with Mouse Pad Holder	Extension Pole	Flexible Pad Holder	Measuring cups	Spatula

Used tools can be cleaned with Cleaner.

› Related products



› Certificates



Check the packaging and the safety data sheet for more details.

For our complete assortment of products for the protection and colouring of interior and exterior wood, please visit
www.rubiomonocoat.com

LIABILITY: It is the user's responsibility to establish, through his own tests, whether the product is suitable for the chosen application. In no case can Muylle Facon NV be held liable for any consequential damage. The information above may be subject to changes, which will be published in the updated versions of the technical data sheet. We cannot be held liable for poor results due to causes that are not related to the quality of the product. This technical information has been drawn up based on the currently available information and knowledge. The most recent technical data sheets can be requested or are available on the website.

Date of TDS: 05/02/2025. Check the safety information before using the product.



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B-EPD ENVIRONMENTAL PRODUCT DECLARATION

Muylle Facon

Rubio Monocoat Oil Plus 2C

Amount of oil in kg needed to protect and decorate 1 m² of substrate for 60 years with a minimum opacity level of 98%

Issued 20.04.2021

Valid until 20.04.2026

Third party verified

Conform to EN 15804+A2, NBN/DTD B08-001 and ISO 14025

Modules declared Cradle to gate with options					
A123	A4	A5	B2 B4 B6	C	D
•	•	•	•	•	•

[B-EPD n° 21_0083_002_00_00_EN]



OWNER OF THIS ENVIRONMENTAL PRODUCT DECLARATION

Muylle Facon bvba



EPD PROGRAM OPERATOR

**Federal Public Service of Health, Food Chain Safety
and Environment**

www.b-epd.be

The intended use of this EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings. This EPD is only valid when registered on www.b-epd.be. The FPS Public Health cannot be held responsible for the information provided by the owner of the EPD.

PRODUCT DESCRIPTION

PRODUCT NAME

Muylle Facon Rubio Monocoat (RMC) Oil Plus 2C, a hardwaxoil

PRODUCT DESCRIPTION AND INTENDED USE

Rubio Monocoat Oil Plus 2C is a (coloured) hardwaxoil containing mainly vegetable oils and hardwaxes produced by Muylle Facon (component A) and a chemical accelerator (component B).

The product colours and protects wooden surfaces for indoor use (e.g. interior wooden floor coverings) in one single layer. The product does not contain water or solvents. Colours without overlaps.

The oil is available in different forms. Approximately 62% of the production volume of the oil is sold together with an accelerator in two separate metal drums with a plastic joint (see figure). Component B is the accelerator and component A is the oil. The other 37% of the oil is sold without component B in a metal drum or plastic bottle. The advantage of using component B is that the oil will dry faster, but the service life time is not affected if only component A is used. Further, the oil is available in a wide range of different colours (even colours on custom demand can be delivered), each with different amounts of pigments. In this EPD an average content, based on the yearly production, is used. The variability of the product group has been investigated using the guidelines of the B-PCR (NBN/DTD B 08-001:2017). This analysis showed that the variability between the average product and the worst-cases is relatively small. Therefore one can consider that the average product is representative for the product group.

This is a specific EPD for a hardwaxoil produced by Muylle Facon.

REFERENCE FLOW / DECLARED UNIT

Environmental Product Declaration (EPD) describes the environmental impacts of the amount of oil in kg needed to protect and decorate 1 m² of wooden substrate for 60 years with a minimum opacity level of 98%.

The weight per reference flow is 0,012 kg.

The density of the product is 1022 kg / m³.

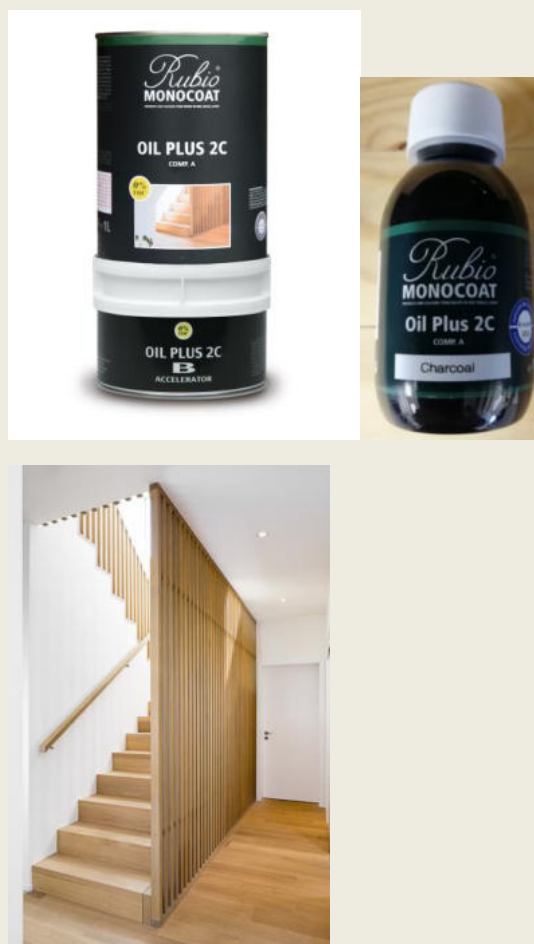
For maintenance every 5 years 0,0024 kg/m² is reapplied. Thus, over the total reference service life (RSL) 0,0384 kg/m² is applied. (see further in paragraph 'Reference service life' and 'B - Use stage')

Packaging is included.

INSTALLATION

Materials for application and installation are included. Following materials are needed for mounting and/or installing the product on a wooden surface of 60 m²: 2 metal polish nets, 1 cotton rag and 2 polishing pads. A polishing machine is used to prepare the floor and to apply the oil. The polishing machine consumes electricity from the grid.

IMAGES OF THE PRODUCT AND ITS INSTALLATION



COMPOSITION AND CONTENT

Components	Composition / content / ingredients	Quantity
Product	- Linseed oil - Wax - Leadfree catalytic dryer - Pigments - Accelerator (hexamethylene diisocyanate) - Others	63% 12% 2% 6% 17% <1%
Fixation materials	NA	
Jointing materials	NA	
Treatments	Energy consumed by polishing machine Maintenance every 5 years	6,50E-02 kWh
Packaging	If component A and component B are sold together the product is packed in one of following sets: - 1,3 liter set: component A in 1 liter metal drum and component B in 0,3 liter metal drum. Both metal drums are connected with a plastic joint - 3,5 liter set: component A in 2,75 liter metal drum and component B in 0,75 liter metal drum. Both metal drums are connected with a plastic joint - 0,350 liter set: component A in 0,275 liter metal drum and component B in 0,075 liter metal drum. Both metal drums are connected with a plastic joint If only component A is used, the product can be packed in a range of metal drums and plastic bottles of different volumes: - a plastic bottle of 20 ml or 100 ml, or a metal drum of 275 ml, 0.5 liter, 1 liter, 2.75 liter or 5 liter is used.	

The product does not contain materials listed in the “Candidate list of Substances of Very High Concern for authorization”.

REFERENCE SERVICE LIFE

The reference service life is estimated at 60 years, equal to the building lifetime defined in MMG (Servaes et al., 2013).

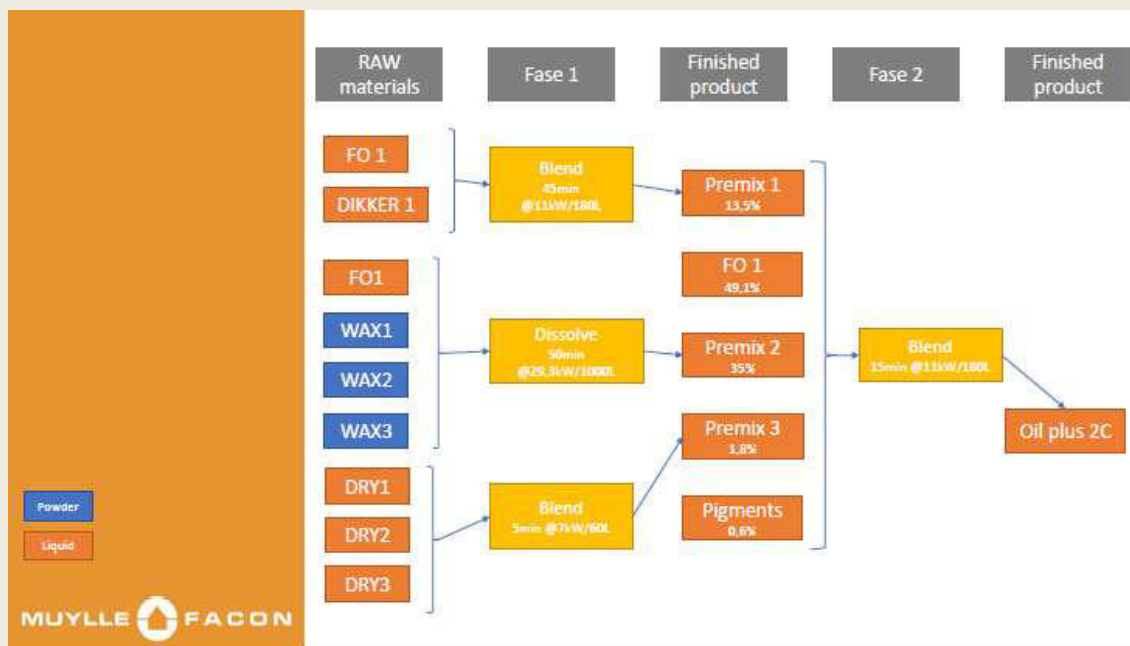
RMC Oil Plus 2C is applied to wooden surfaces for indoor use. When well maintained, the life span of the treated product can easily go up to 60 years or more. Based on the current available technical 'in-house'-knowledge obtained during the last 12 years, Muylle Facon declares that -when well maintained- the wooden surface will look like as if it was freshly installed. Depending on the use frequency of the wooden surface (e.g. persons passing over a floor) and the type of wood, a certain amount of the product detaches over time due to wear. It is assumed that over 5 years on average 0,0024 kg/m² detaches. Therefore, maintenance (with the same product RMC Oil Plus 2C) should be done every 5 years. A maintenance requires approximately 0,005 kg/m², of which 0,0024 kg/m² is absorbed in the wood and 0,0026 kg/m² is lost during application (see further in A5 – Installation in the building). In this EPD an analysis over the RSL taking into account wear off and reapplication was done

DESCRIPTION OF GEOGRAPHICAL REPRESENTATIVITY

The EPD is representative for the Belgian market. The manufacturing occurs at the Muylle Facon production site in Izegem, Belgium, and the product is applied, used and reaches its end-of-life in Belgium.

DESCRIPTION OF THE PRODUCTION PROCESS AND TECHNOLOGY

First the different raw materials are weighed (= weighing process). The second step is the mixing process, which consists of two phases. In the first phase the raw materials are blended or dissolved to obtain intermediate products or premixes. In the second phase of the mixing process the premixes are blended, which eventually results in the final product. Finally, the metal drums with the blend (= component A) are emptied according to the desired final packaging (= filling process). The mixing process to obtain component A is shown in the schematical overview below. The accelerator or component B (i.e. hexamethylene diisocyanate) is bought in bulk by Muylle Facon, packed in the appropriate metal drums and sold together with component A.



TECHNICAL DATA / PHYSICAL CHARACTERISTICS

Technical property	Standard	Value	Unit	Comment
VOC content	/	0%	/	VOC test results from Ecce
Consumption	/	25	g/m ²	
Overlaps	/	No	/	due to the very low film forming and the molecular bonding with the wood (cellulose)
Density	/	1022	kg/m ³	

LCA STUDY

DATE OF LCA STUDY

April 2021

SOFTWARE

For the calculation of the LCA results, the software program SimaPro 9.1.1.1 (PRé Consultants, 2021) has been used.

INFORMATION ON ALLOCATION

At Muelle Facon, different types of oils for surface treatment are produced. For every oil specific data was available for the use of raw materials, the use of electricity, natural gas, etc. No specific data was available for the fraction of the area of the site and factory used to produce the analyzed product. The area of the facility has been allocated to the analyzed product using the respective annual production volume (physical relationship).

INFORMATION ON CUT OFF

The following processes are considered below cut-off:

- benefits and loads of recycling, incineration and reuse of packaging waste in module D;
- benefits and loads from incineration and recycling of 5% transport and installation losses in module D;
- manufacturing of the polishing machine;

INFORMATION ON EXCLUDED PROCESSES

Following processes were excluded for the inventory:

- manufacturing of the polishing machine;
- packaging of ancillary materials used during manufacturing and installation of the product;
- impact of the losses due to use of the wooden surface (e.g. persons passing over a floor);
- environmental impacts caused by the personnel of the production plants, e.g. waste from the cafeteria and sanitary installations, accidental pollution caused by human mistakes, or environmental effects caused by commuter traffic; heating or cooling of the plants in order to ensure a comfortable indoor climate for the personnel for example is also neglected. The total of neglected input flows is less than 5% of energy usage and mass as prescribed by EN15804+A2

INFORMATION ON BIOGENIC CARBON MODELLING

The oil contains linseed oil, derived from linseeds, and Carnauba wax, derived from palm leaves. Netto uptake of biogenic CO₂ within both materials is reported in module A1, netto release of biogenic CO₂ related to these flows is reported in A3 and C4. The accompanying packaging does not contain biogenic carbon.

Biogenic carbon content (kg C / FU)	
Biogenic carbon content in product (at the gate)	2,25E-02
Biogenic carbon content in accompanying packaging (at the gate)	0

INFORMATION ON CARBON OFFSETTING

Carbon offsetting is not allowed in the EN 15804 and hence not taken into account in the calculations.

ADDITIONAL OR DEVIATING CHARACTERISATION FACTORS

The characterization factors from EC-JRC were applied. No additional or deviating characterisation factors were used.

DESCRIPTION OF THE VARIABILITY

The oil is available in different forms. Approximately 62% of the production volume of the oil is sold together with an accelerator in two separate metal drums with a plastic joint. Component B is the accelerator and component A is the oil. The other 37% of the oil is sold without component B in a metal drum or plastic bottle. Further, the oil is available in a wide range of different colours (even colours on custom demand can be delivered), each with different amounts of pigments. In this EPD an average content, based on the yearly production, is used. The variability of the product group has been investigated using the guidelines of the B-PCR (NBN/DTD B 08-001:2017). This analysis showed that the variability between the average product and the worst-cases is relatively small. Therefore one can consider that the average product is representative for the product group.

DATA

SPECIFICITY

The data used for the LCA are specific for this product which is manufactured by a single manufacturer in a single production site. The composed datasets for this life cycle assessment are representative and relevant for oil-based products produced by Muylle Facon to protect and decorate wooden surfaces for indoor use.

PERIOD OF DATA COLLECTION

Manufacturer specific data have been collected from November 2017 until November 2018.

INFORMATION ON DATA COLLECTION

Company specific data for the product stage have been collected by Muylle Facon and were provided to VITO through an online data collection questionnaire and additional excel-files. The LCI data for the product stage have been checked by the EPD verifier (Vinçotte) during a factory visit. VITO uses publicly available generic data for all background processes such as the production of electricity, transportation by means of a specific truck, etc.

DATABASE USED FOR BACKGROUND DATA

The LCI source used in this study is the Ecoinvent 3.6 database (Wernet et al., 2019).

ENERGY MIX

The Belgian electricity mix (consumption mix + import) has been used to model electricity use in life cycle stages A3, A5, C1 and C4. The used record is the Ecoinvent record 'Electricity, low voltage {BE}| market for | Cut-off, U' (Wernet et al., 2019).

PRODUCTION SITES

Muylle Facon, Izegem, Belgium

SYSTEM BOUNDARIES

Product stage			Construction installation stage		Use stage							End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Construction installation stage	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☒	☒	☒	☒	☒	MND	☒	MND	☒	MND	☒	MND	☒	☒	☒	☒	☒

X = included in the EPD

MND = module not declared

The product is 100% incinerated at its end-of-life. The benefits from the potential use of exported electricity and heat during incineration are declared in module D.

No coproducts are produced.

The product does not contain recycled content.

POTENTIAL ENVIRONMENTAL IMPACTS PER REFERENCE FLOW

		Production			Construction process stage		Use stage							End-of-life stage				D Reuse, recovery, recycling	Total excl module D
		A1 Raw material	A2 Transport	A3 manufacturing	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal		
	GWP total (kg CO ₂ equiv/FU)	2,46E-02	2,51E-04	5,01E-03	2,28E-04	1,25E-01	MND	7,77E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,08E-04	0,00E+00	3,32E-02	-1,09E-02	9,65E-01
	GWP fossil (kg CO ₂ equiv/FU)	4,68E-02	2,51E-04	4,51E-03	2,28E-04	1,23E-01	MND	7,70E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,08E-04	0,00E+00	1,08E-02	-1,09E-02	9,56E-01
	GWP biogenic (kg CO ₂ equiv/FU)	-2,25E-02	1,10E-07	4,97E-04	1,03E-07	6,66E-04	MND	3,90E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,48E-08	0,00E+00	2,24E-02	-1,54E-05	4,96E-03
	GWP luluc (kg CO ₂ equiv/FU)	3,33E-04	9,09E-08	3,07E-06	8,94E-08	4,92E-04	MND	2,61E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	7,27E-08	0,00E+00	4,77E-07	-8,74E-06	3,43E-03
	ODP (kg CFC 11 equiv/FU)	2,98E-09	5,67E-11	2,71E-10	5,14E-11	9,05E-09	MND	6,71E-08	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	4,73E-11	0,00E+00	1,89E-10	-1,78E-09	7,97E-08
	AP (mol H ⁺ equiv/FU)	6,22E-04	1,04E-06	2,52E-05	9,30E-07	9,54E-04	MND	4,97E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,50E-07	0,00E+00	5,26E-06	-1,49E-05	6,58E-03
	EP freshwater (kg P _e equiv/FU)	7,40E-06	2,09E-09	1,40E-07	2,01E-09	1,09E-05	MND	5,58E-05	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	1,63E-09	0,00E+00	2,11E-08	-1,05E-07	7,42E-05
	EP marine (kg N _e equiv/FU)	2,82E-04	3,10E-07	3,99E-06	2,69E-07	3,90E-04	MND	1,87E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,52E-07	0,00E+00	1,53E-06	-3,48E-06	2,55E-03
	EP terrestrial (mol N _e equiv/FU)	2,03E-03	3,43E-06	6,46E-05	2,98E-06	2,89E-03	MND	1,40E-02	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,79E-06	0,00E+00	1,71E-05	-4,06E-05	1,90E-02
	POCP (kg Ethene equiv/FU)	1,64E-04	1,05E-06	1,49E-05	9,38E-07	3,59E-04	MND	2,34E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,54E-07	0,00E+00	4,62E-06	-1,20E-05	2,88E-03

	ADP Elements (kg Sb equiv/FU)	7,42E-08	4,94E-10	8,08E-08	4,92E-10	2,58E-07	MND	1,50E-06	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	4,05E-10	0,00E+00	1,70E-09	-9,61E-09	1,92E-06
	ADP fossil fuels (MJ/FU)	5,33E-01	3,78E-03	5,59E-02	3,45E-03	1,89E+00	MND	1,56E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	3,14E-03	0,00E+00	1,09E-02	-2,59E-01	1,81E+01
	WDP (m³ water deprived /FU)	2,08E-02	1,08E-05	1,22E-03	1,12E-05	5,91E-02	MND	4,40E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,73E-06	0,00E+00	1,96E-03	-1,39E-03	5,23E-01

GWP total = total Global Warming Potential (Climate Change); GWP-luluc = Global Warming Potential (Climate Change) land use and land use change; ODP = Ozone Depletion Potential; AP = Acidification Potential for Soil and Water; EP = Eutrophication Potential; POCP = Photochemical Ozone Creation; ADPE = Abiotic Depletion Potential – Elements; ADPF = Abiotic Depletion Potential – Fossil Fuels; WDP = water use (Water (user) deprivation potential, deprivation-weighted water consumption)

RESOURCE USE

	Production			Construction process		Use stage							End-of-life stage				D Reuse, recovery, recycling	Total exd module D
	A1 Raw material	A2 Transport	A3 manufacturing	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Returbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal		
<i>PERE</i> (MJ/FU, net calorific value)	4,82E+01	5,46E-05	1,09E-02	5,34E-05	7,72E-01	MND	3,56E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	4,33E-05	0,00E+00	7,88E-02	-1,56E-02	4,90E+00
<i>PERM</i> (MJ/FU, net calorific value)	7,96E-02	0,00E+00	-1,54E-03	0,00E+00	3,47E-10	MND	1,72E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	-7,81E-02	0,00E+00	1,72E-01
<i>PERT</i> (MJ/FU, net calorific value)	5,62E-01	5,46E-05	9,34E-03	5,34E-05	7,72E-01	MND	3,73E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	4,33E-05	0,00E+00	7,66E-04	-1,56E-02	5,07E+00
<i>PENRE</i> (MJ/FU, net calorific value)	5,27E-01	3,81E-03	7,13E-02	3,49E-03	2,06E+00	MND	1,68E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	3,16E-03	0,00E+00	5,57E-02	-2,80E-01	1,95E+01
<i>PENRM</i> (MJ/FU, net calorific value)	6,13E-02	0,00E+00	-5,74E-03	0,00E+00	7,40E-03	MND	1,38E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	-4,36E-02	0,00E+00	1,58E-01
<i>PENRT</i> (MJ/FU, net calorific value)	5,88E-01	3,81E-03	6,56E-02	3,49E-03	2,07E+00	MND	1,69E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	3,16E-03	0,00E+00	1,21E-02	-2,80E-01	1,97E+01
<i>SM</i> (kg/FU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,64E-03	0,00E+00
<i>RSF</i> (MJ/FU, net calorific value)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

<i>NRSF</i> <i>(MJ/FU,</i> <i>net</i> <i>calorific</i> <i>value)</i>	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<i>FW</i> <i>(m³ water</i> <i>eq/FU)</i>	5,16E-04	3,86E-07	3,23E-05	3,93E-07	1,66E-03	MND	1,15E-02	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	3,11E-07	0,00E+00	1,72E-04	-4,43E-05	1,39E-02

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources;
PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources;
SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

WASTE CATEGORIES & OUTPUT FLOWS

	Production			Construction process stage		Use stage							End-of-life stage					
	A1 Raw material	A2 Transport	A3 manufacturing	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling	Total excl module D
Hazardous waste disposed (kg/FU)	8,12E-07	1,31E-08	1,78E-07	8,93E-09	2,21E-06	MND	1,27E-05	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	8,22E-09	0,00E+00	2,39E-07	-2,58E-07	1,62E-05
Non-hazardous waste disposed (kg/FU)	6,20E-03	1,77E-04	3,23E-03	2,04E-04	2,89E-02	MND	1,07E-01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	1,50E-04	0,00E+00	1,02E-02	-2,98E-04	1,57E-01
Radioactive waste disposed (kg/FU)	9,66E-07	2,57E-08	1,57E-07	2,34E-08	8,45E-06	MND	8,20E-05	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,14E-08	0,00E+00	5,85E-08	-1,44E-06	9,17E-05
Components for re-use (kg/FU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling (kg/FU)	0,00E+00	0,00E+00	2,64E-04	0,00E+00	1,38E-03	MND	3,61E-03	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,64E-03	5,26E-03
Materials for energy recovery (kg/FU)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy (MJ/FU)	0,00E+00	0,00E+00	2,73E-03	0,00E+00	3,95E-02	MND	9,30E-02	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	2,92E-02	-7,15E-02	1,64E-01

IMPACT CATEGORIES ADDITIONAL TO EN 15804

		Production			Construction process		Use stage							End-of-life stage				D Reuse, recovery, recycling	Total excl module D
		A1 Raw material	A2 Transport	A3 manufacturing	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal		
	PM (disease incidence)	4,43E-09	1,78E-11	2,97E-10	1,64E-11	7,04E-09	MND	3,66E-08	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	1,45E-11	0,00E+00	5,11E-11	-6,47E-11	4,84E-08
	IRHH (kg U235 eq/FU)	8,44E-04	1,65E-05	1,64E-04	1,51E-05	9,47E-03	MND	9,45E-02	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	1,37E-05	0,00E+00	4,70E-05	-1,66E-03	1,05E-01
	ETF (CTUh/FU)	7,15E-01	3,08E-03	1,06E-01	2,88E-03	1,88E+00	MND	1,07E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,51E-03	0,00E+00	2,15E-01	-6,90E-02	1,36E+01
	HTCE (CTUh/FU)	5,25E-11	1,01E-13	2,88E-11	8,39E-14	1,12E-10	MND	5,31E-10	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	7,06E-14	0,00E+00	1,02E-12	-2,05E-12	7,27E-10
	HTnCE (CTUh/FU)	2,16E-09	3,39E-12	1,37E-10	3,13E-12	3,25E-09	MND	1,52E-08	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,74E-12	0,00E+00	6,81E-11	-4,64E-11	2,09E-08
	Land Use Related impacts (dimensionless)	1,99E+00	2,56E-03	5,74E-02	2,84E-03	2,69E+00	MND	1,24E+01	MND	0,00E+00	MND	0,00E+00	MND	0,00E+00	2,16E-03	0,00E+00	9,19E-03	-3,92E-02	1,71E+01

HTCE = Human Toxicity – cancer effects; HTnCE = Human Toxicity – non cancer effects; ETF = Ecotoxicity – freshwater; (potential comparative toxic unit)
 PM = Particulate Matter (Potential incidence of disease due to PM emissions);
 IRHH = Ionizing Radiation – human health effects (Potential Human exposure efficiency relative to U235);

	Global Warming Potential	The global warming potential of a gas refers to the total contribution to global warming resulting from the emission of one unit of that gas relative to one unit of the reference gas, carbon dioxide, which is assigned a value of 1. It is split up in 4: - Global Warming Potential total (GWP-total) which is the sum of GWP-fossil, GWP-biogenic and GWP-luluc - Global Warming Potential fossil fuels (GWP-fossil) : The global warming potential related to greenhouse gas (GHG) emissions to any media originating from the oxidation and/or reduction of fossil fuels by means of their transformation or degradation (e.g. combustion, digestion, landfilling, etc). - Global Warming Potential biogenic (GWP-biogenic) : The global warming potential related to carbon emissions to air (CO₂, CO and CH₄) originating from the oxidation and/or reduction of aboveground biomass by means of its transformation or degradation (e.g. combustion, digestion, composting, landfilling) and CO₂ uptake from the atmosphere through photosynthesis during biomass growth – i.e. corresponding to the carbon content of products, biofuels or above ground plant residues such as litter and dead wood.¹ - Global Warming Potential land use and land use change (GWP-luluc): The global warming potential related to carbon uptakes and emissions (CO₂, CO and CH₄) originating from carbon stock changes caused by land use change and land use. This sub-category includes biogenic carbon exchanges from deforestation, road construction or other soil activities (including soil carbon emissions).
	Ozone Depletion	Destruction of the stratospheric ozone layer which shields the earth from ultraviolet radiation harmful to life. This destruction of ozone is caused by the breakdown of certain chlorine and/or bromine containing compounds (chlorofluorocarbons or halons), Which break down when they reach the stratosphere and then catalytically destroy ozone molecules.
	Acidification potential	Acid depositions have negative impacts on natural ecosystems and the man-made environment incl. buildings. The main sources for emissions of acidifying substances are agriculture and fossil fuel combustion used for electricity production, heating and transport.
	Eutrophication potential	The potential to cause over-fertilization of water and soil, which can result in increased growth of biomass and following adverse effects. It is split up in 3: - Eutrophication potential – freshwater: The potential to cause over-fertilization of freshwater, which can result in increased growth of biomass and following adverse effects. - Eutrophication potential – marine: The potential to cause over-fertilization of marine water, which can result in increased growth of biomass and following adverse effects. - Eutrophication potential – terrestrial: The potential to cause over-fertilization of soil, which can result in increased growth of biomass and following adverse effects.
	Photochemical ozone creation	Chemical reactions brought about by the light energy of the sun creating photochemical smog. The reaction of nitrogen oxides with hydrocarbons in the presence of sunlight to form ozone is an example of a photochemical reaction.
	Abiotic depletion potential for non-fossil resources	Consumption of non-renewable resources, thereby lowering their availability for future generations. Expressed in comparison to Antimony (Sb). The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.
	Abiotic depletion potential for fossil resources	Measure for the depletion of fossil fuels such as oil, natural gas, and coal. The stock of the fossil fuels is formed by the total amount of fossil fuels, expressed in Megajoules (MJ). The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.
	Ecotoxicity for aquatic fresh water	The impacts of chemical substances on ecosystems (freshwater). The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.
	Human toxicity (carcinogenic effects)	The impacts of chemical substances on human health via three parts of the environment: air, soil and water.

¹ Carbon exchanges from native forests shall be modelled under GWP - luluc (including connected soil emissions, derived products or residues), while their CO₂ uptake is excluded.

		<i>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.</i>
	Human toxicity (non-carcinogenic effects)	<i>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.</i>
	Particulate matter	<i>Accounts for the adverse health effects on human health caused by emissions of Particulate Matter (PM) and its precursors (NOx, SOx, NH3)</i>
	Resource depletion (water)	<i>Accounts for water use related to local scarcity of water as freshwater is a scarce resource in some regions, while in others it is not.</i> <i>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.</i>
	Ionizing radiation - human health effects	<i>This impact category deals mainly with the eventual impact on human health of low dose ionizing radiation of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.</i>
	Land use related impacts	<i>The indicator is the "soil quality index" which is the result of an aggregation of following four aspects:</i> - <i>Biotic production</i> - <i>Erosion resistance</i> - <i>Mechanical filtration</i> - <i>Groundwater</i> <i>The aggregation is done based on a JRC model. The four aspects are quantified through the LANCA model for land use.</i> <i>The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.</i>

DETAILS OF THE UNDERLYING SCENARIOS USED TO CALCULATE THE IMPACTS

A1 – RAW MATERIAL SUPPLY

This module takes into account the extraction and processing of all raw materials and energy which occur upstream to the studied manufacturing process.

A2 – TRANSPORT TO THE MANUFACTURER

The raw materials are transported to the manufacturing site. Transport distances and types have been provided by Muylle Facon.

A3 – MANUFACTURING

The manufacturing process consists of 3 steps. First the different raw materials are weighed (= weighing process). During the mixing process the different raw materials are mixed in a metal drum with a plastic liner using consecutive mixing steps. The plastic liner is used in order to avoid contamination between the different grades. Solvesso® 100 is used for cleaning the different stirrers in the mixing process. Finally, the metal drums containing the blend or component A are emptied according to the desired final packaging (= filling process). The mixing process to obtain component A is shown in Figure 1. The accelerator or component B (i.e. hexamethylene diisocyanate) is bought in bulk by Muylle Facon, packed in the appropriate metal drums and sold together with component A.

The raw material's packaging are released at the manufacturing site. The production waste is 1,94% of the total production.

A4 – TRANSPORT TO THE BUILDING SITE

Fuel type and consumption of vehicle or vehicle type used for transport	Truck 7.5-16 ton 0,186 l diesel / km	Truck >32 ton 0,366 l diesel / km	Truck 7.5-16 ton 0,186 l diesel / km	Truck 3.5-7.5 ton 0,128 l diesel / km
Distance	100	100	35	35
Capacity utilisation (including empty returns)	50%	50%	50%	50%
Bulk density of transported products	Ecoinvent	Ecoinvent	Ecoinvent	Ecoinvent
Volume capacity utilisation factor	Ecoinvent	Ecoinvent	Ecoinvent	Ecoinvent

The B-PCR provides default transport scenarios for the transport to the building site for cases where specific data on transport are missing. The B-PCR provides scenario's for this life cycle stage. Hardwaxoils to cover and protect wooden surfaces are categorized as 'Finishing products: paints and varnishes' in table 5 of the B-PCR. The following transport steps apply:

- 10% directly to the construction site over 100 km with a 7.5-16 ton lorry (ecoinvent record: 'Transport, freight, lorry 7.5-16 metric ton, EURO5 {RER}' transport, freight, lorry 7.5-16 metric ton, EURO5 | Cut-off, U')
- 90% to a supplier over 100 km with a >32 ton lorry (ecoinvent record: 'Transport, freight, lorry >32 metric ton, EURO5 {RER}' transport, freight, lorry >32 metric ton, EURO5 | Cut-off, U')
- 80% of these 90% is transported over 35 km from supplier to construction site with a 7.5-16 ton lorry (ecoinvent record: 'Transport, freight, lorry 7.5-16 metric

ton, EURO5 {RER}' transport, freight, lorry 7.5-16 metric ton, EURO5 | Cut-off, U')

- 20% of these 90% is transported over 35 km from supplier to construction site with a 3.5-7.5 ton lorry (ecoinvent record: 'Transport, freight, lorry 3.5-7.5 metric ton, EURO5 {RER}' transport, freight, lorry 3.5-7.5 metric ton, EURO5 | Cut-off, U')

A5 – INSTALLATION IN THE BUILDING

A polishing machine is used to prepare the wooden surface and to apply the hardwaxoil. The surface is first treated with metal polishing nets to remove scratches. To apply the hardwaxoil the metal nets on the polishing machine are replaced by polishing pads. Finally, after waiting a few minutes to let the wood absorb the oil, cotton rags are used to remove all excess of oil. During the application 0,02509 kg oil per m² is used, of which 0,012 kg is absorbed in the wood and 0,01309 kg is taken up by the cotton rags and is discharged. The production, transport and end-of-life of this excess oil is also considered in this module.

In industrial applications the oil is sprayed on the wood using Rubio Monocoater Sprayspray machine. In this case you have less losses when using pads. However, in this EPD it is assumed that a polishing machine is used for all the applications.

At the construction site, packaging materials are released. Also a default value of 5% material losses have been taken into account, in line with MMG (Servaes R. et al., 2013).

Parts of the installation	quantity	Description
Processes necessary for the installation of the product	6,50E-02 kWh	Energy consumption of the polishing machine
Fixation materials	NA	
Joining materials	NA	
Treatments	0,0375 p 0,025 p 0,05 p	Polishing nets (nylon and zirconium oxide) Cotton rags (Recycled cotton) Polishing pads (PE foam)
Material losses	0,013 kg 5%	Material losses during the application (oil absorbed by the cotton rags) Material losses due to breakage etc
Packaging	4,65E-04 kg 1,23E-04 kg	Metal waste Plastic waste

Ancillary materials for installation (specified by material);	0,0375 p metal polish nets (nylon and zirconium oxide)	0,025 p cotton rags (woven cotton)	0,05 p polishing pads (PE foam)
Water use	Not applicable		
Other resource use	Not applicable		
Quantitative description of energy type (regional mix) and consumption during the installation process	The polishing machine consumes 65 W/m ²		
Waste materials on the building site before waste processing, generated by the product's installation (specified by type)	0,01309 kg product waste 5% product losses	4,65E-4 kg tin drums (finished product packaging)	1,23E-4 kg plastic bottles (finished product packaging)

Output materials (specified by type) as result of waste processing at the building site e.g. of collection for recycling, for energy recovery, disposal (specified by route)	100% incinerated 75% incinerated, 25% recycled	5% landfill, 95% recycling	5% landfill, 60% incineration, 35% recycling
Direct emissions to ambient air, soil and water	Not applicable		
Distance	Not applicable		

B – USE STAGE (EXCLUDING POTENTIAL SAVINGS)

B1: MND

B2: Depending on the use frequency of the wooden surface (e.g. persons passing over a floor) and the type of wood, a certain amount of the product detaches over time due to wear. This EPD assumes an average of 0,0024 kg/m² product losses every 5 years. These losses are considered as no impact losses in the model. Maintenance is done every 5 years with the same product to replace the losses due to use. In order to absorb 0,0024 kg/m² of oil in the wood, 0,005 kg/m² is used (0,0024 kg is absorbed in the wood and 0,0026 kg is discharged during the application). Over the RSL of 60 years, 11 re-applications are needed, this equals 0,055 kg of RMC Oil Plus 2C in total.

Cleaning with water and soap is not considered, as this is done for maintenance of the wooden surface and not of the oil itself.

B3:MND

B4: No replacement

B5:MND

B6: No operational energy use

B7: MND

C: END OF LIFE

The B-PCR provides default scenario's for waste processing of finishing layers such as paints and varnishes adhered to wooden, metal or plastic surfaces: 100% of finishing layers adhered to wooden, metal or plastic surfaces are incinerated.

C1: It is assumed that no impacts are related to the demolition of the product.

C2: The default scenario for finishing layers from B-PCR describes that the end-of-life waste is transported to a sorting facility over a distance of 30 km. Afterwards, 100% is transported to an incineration plant over a distance of 100 km.

C3: No recycling/reuse

C4: 100% incineration

Module C2 – Transport to waste processing					
Type of vehicle (truck/boat/etc.)	Fuel consumption (litres/km)	Distance (km)	Capacity utilisation (%)	Density of products (kg/m ³)	Assumptions
Truck 16-32 ton	0,260 l diesel/km	30	50%	ecoinvent scenario	ecoinvent scenario
Truck 16-32 ton	0,260 l diesel/km	50	50%	ecoinvent scenario	ecoinvent scenario
Truck 16-32 ton	0,260 l diesel/km	100	50%	ecoinvent scenario	ecoinvent scenario

End-of-life modules – C3 and C4

Parameter	Unit	Value
Wastes collected separately	kg	0
Wastes collected as mixed construction waste	kg	9,60E-03
Waste for re-use	kg	0
Waste for recycling	kg	0
Waste for energy recovery	kg	0
Waste for final disposal	kg	9,60E-03

D – BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES

In module D, the benefits and loads beyond the system boundaries are quantified. Following waste streams per FU are 100% incinerated: 0,0096 kg hardwaxoil adhered to the wooden surface and 0,01309 kg hardwaxoil that remains in the polishing pads, cotton rags and polishing nets after application onto the wooden surface. In addition, the discharged hardwaxoil that remains in the cotton rags during the 5-yearly maintenance step is considered in module D. The benefits from the potential use of exported electricity and heat during incineration has been declared in module D.

Quantitative description of the loads beyond the system boundaries	Not applicable
Quantitative description of the benefits beyond the system boundaries	Avoided production of 0,104 MJ of heat using natural gas
	Avoided production of 0,052 kWh of Belgian electricity mix

ADDITIONAL INFORMATION ON RELEASE OF DANGEROUS SUBSTANCES TO INDOOR AIR, SOIL AND WATER DURING THE USE STAGE

INDOOR AIR

No significant emissions to indoor air are expected. This product has the Indoor Air Comfort Gold® label, based on test results from Eurofins. Criteria for this label mention that 3 days after the application the total VOC concentration in the air (CEN/TS 16516) is less than 1000 µg/m³ (460 µg/m³ for this product) and after 28 days less than 100 µg/m³ (6.1 µg/m³ for this product).

SOIL AND WATER

No emissions to soil or water are expected (CEN TC 351)

DEMONSTRATION OF VERIFICATION

EN 15804+A2 serves as the core PCR	
Independent verification of the environmental declaration and data according to standard EN ISO 14025:2010	
Internal ☐	External ☒
Third party verifier: Evert Vermaut (Vincotte) Jan Olieslagerslaan 35 1800 Vilvoorde, Belgium evermaut@vincotte.be	

APPLICATION UNIT

This paragraph gives information on the applied product and how the reference flow relate to different applications. For the hardwaxoil there is only one application, i.e. the colouring and protection of indoor wooden surfaces. The ratio to the functional unit is 1.

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General information

Owner of the EPD,
Responsible for the data, LCA and information

Muylle Facon bvba
Ambachtenstraat 58
8870 Izegem
Belgium

Tel : +32472 67 69 89;

For more information you can contact
Johan Boonaert, johan.boonaert@muyllefacon.be

EPD program
Program operator
Publisher of this EPD

B-EPD
FPS Health / DG Environment

Galileelaan 5/2
1210 Brussels
Belgium

www.environmentalproductdeclarations.eu

Contact programma operator

epd@environment.belgium.be

Based on following PCR documents

EN 15804+A2:2019
NBN/DTD B 08-001 and its complement
Insert others

PCR review conducted by

Federal Public Service of Health and Environment &
PCR Review committee

Author(s) of the LCA and EPD

Lisa Damen (VITO), Arthur De Jaegher (VITO)
epd@vito.be / arthur.dejaegher@vito.be

Identification of the project report

Life cycle assessment of Muylle Facon RMC oil Plus
2C, March 2021, version 1

Verification

External independent verification of the declaration and data
according to EN ISO 14025 and relevant PCR documents

Name of the third party verifier
Date of verification

Evert Vermaut (Vinçotte)
20.04.2021

www.b-epd.be

www.environmentalproductdeclarations.eu

Comparing EPDs is not possible unless they are conform to the same PCR and taking into account the building context.
The program operator cannot be held responsible for the information supplied by the owner of the EPD nor LCA practitioner.



LCA practitioner

www.vito.be



Building calculator of the
regional authorities

www.totem-building.be



Federal Public Service of
Health, Food Chain Safety and
Environment

www.b-epd.be

Digitally signed by Dieter
(De Lathauwer (Signature)

Shipper
HORNING PARKET A/S
CHRISTIANSMINDEVEJ 12
8660 SKANDERBORG

B/L No.
VER285227



SACO SHIPPING LINE LTD

Consigned to order of

RETAIL FASHION GROUP S.A.P.I DE C.V.
AV. EJERCITO NACIONAL NO EXT. 843, NO
INT B CORP ANTARA II 99
COL GRANADA, MIGUEL HIDALGO
11520 CIUDAD DE MEXICO
RFC???
EMAIL???

Notify Party and address

RETAIL FASHION GROUP S.A.P.I DE C.V.
AV. EJERCITO NACIONAL NO EXT. 843, NO
INT B CORP ANTARA II 99
COL GRANADA, MIGUEL HIDALGO
11520 CIUDAD DE MEXICO

SACO SHIPPING LINE LIMITED

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

6/08/HAM/1601**

Copy

		Place of receipt DK-SKANDERBORG	
Ocean vessel GSL TEGEA 630W		Port of loading BREMERHAVEN	
Port of discharge VERACRUZ	Place of delivery DAP MEXICO CITY		Freight payable HAMBURG
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. 83172993/83172994	Quantity of Goods 3 PALLETS	Description of Goods WOODEN FLOOR AND FILLER AND OIL HS-CODE: 440900	Said to contain Gross weight, kg. 1201,000
		Measurement, m ³ 3,340	

STOWED INTO CONTAINER NO.: MRSU5588444

SEAL : B193312

TOTAL **3 PALLETS** **1201,000 KGS** **3,340 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 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
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
QUALIFIED CARGO SOLUTIONS GMBH
HESSENRING 30
64546 MOERFELDEN-WALLDORF
GERMANY
TAX-ID: DE111656032

B/L No.
VER285232



SACO SHIPPING LINE LTD

Consigned to order of

SEA BRIDGE MEXICO SA DE CV
LAGUNA DE TERMINOS 221 TORRE B PISO 5
OFICINA 504 COL. GRANADA C.P 11520
ALC. MIGUEL HIDALGO, CDMX, MEXICO
TAX ID: SBM0601253SA TEL: +52 55 4161 5990/3
NOTIFICATIONS@SEABRIDGE.MX

Notify Party and address

SEA BRIDGE MEXICO SA DE CV
LAGUNA DE TERMINOS 221 TORRE B PISO 5
OFICINA 504 COL. GRANADA C.P 11520
ALC. MIGUEL HIDALGO, CDMX, MEXICO
TAX ID: SBM0601253SA TEL: +52 55 4161 5990/3
NOTIFICATIONS@SEABRIDGE.MX

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

6/08/HAM/1601111

Copy

		Place of receipt HAMBURG CFS	
Ocean vessel GSL TEGEA 630W		Port of loading BREMERHAVEN	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable VERACRUZ
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. TOLUCA PLANTA DE BLINDADOS S.A. DE CV RO:661950	Quantity of Goods 1 PALLET	Description of Goods Said to contain INFORMATION SIGNS: BMW LOGO, MINI L OGO NON STACKABLE HS: 83100000, 94056180, 94059900	Gross weight, kg. 110,000
		Measurement, m ³ 2,171	
STOWED INTO CONTAINER NO.: MRSU5588444		SEAL : B193312	
TOTAL		1 PALLET	110,000 KGS 2,171 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.
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 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wolkämmereistraße 1
21107 Hamburg
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
HANSA GATEWAY UG
(HAFTUNGSBESCHRAENKT)
WAGNERSTR. 14
TAX-ID: DE273690361
08523 PLAUEM GERMANY
TEL.: +49 (0) 37415764858

B/L No.
VER285238



SACO SHIPPING LINE LTD

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

6/08/HAM/1601**

Copy

Consigned to order of
BONANZA LOGISTICS S.A. DE C.V.
TAX-ID / RFC: BLO1508261JA
CORDOBA 82 COLONIA ROMA NORTE
DEL. CUAUHTEMOC, C.P.06700 CIUDAD
DE MEXICO, MEXICO
CTC: RODRIGO NUNEZ*

Notify Party and address
BONANZA LOGISTICS S.A. DE C.V.
TAX-ID / RFC: BLO1508261JA
CORDOBA 82 COLONIA ROMA NORTE
DEL. CUAUHTEMOC, C.P.06700 CIUDAD
DE MEXICO, MEXICO
CTC: RODRIGO NUNEZ*

		Place of receipt HAMBURG CFS	
Ocean vessel GSL TEGEA 630W		Port of loading BREMERHAVEN	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable VERACRUZ
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. VER285238 SANBORN HERMANOS MEXICO	Quantity of Goods 4 PALLETS	Description of Goods BOOKS HS CODE: 4901	Said to contain Gross weight, kg. 1628,525 Measurement, m ³ 4,333

* TEL: +52 55 5514 6097
EMAIL:
OPERACIONES@BONANZALOGISTICS.COM
.MX

STOWED INTO CONTAINER NO.: MRSU5588444

SEAL : B193312

TOTAL 4 PALLETS 1628,525 KGS 4,333 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

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
HAMBURG 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wolkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Shipper

GEODIS FF GERMANY GMBH & CO. KG
AS AGENT OF CARGO CONTAINER LINE LTD
HAMMERBROOKSTRASSE 89, 20097 HAMBURG,
GERMANY
HAMBURG 20097 GERMANY
EORI+DE2728605

B/L No.
VER580693



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED

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

6/08/HAM/160132

Copy

Consigned to order of

GEODIS MEXICO S.A. DE C.V.
AV. INSURGENTES SUR NO. 1602, COLONIA
CREDITO CONSTRUCTOR - DEL. BENITO JUAREZ
MEXICO CMX 03940 MEXICO
RFC+GWM790307NB0

Notify Party and address

GEODIS MEXICO, S.A. DE C.V.
INSURGENTES SUR 1602 P.18 COL. CREDITO
CONSTRUCTOR MEXICO D.F. DEL. BENITO
JUAREZ C.P. 03940
MEXICO CMX 03940 MEXICO
+525511070010

		Place of receipt HAMBURG, GERMANY CFS			
Ocean vessel GSL TEGEA 630W		Port of loading BREMERHAVEN, GERMANY			
Port of discharge VERACRUZ, MEXICO		Place of delivery VERACRUZ, MEXICO CFS		Freight payable ORIGIN	Number of original Bills of Lading 0/ZERO
Marks and Nos. DKSONPNA 3100001490 221201 1687 STOWED INTO CONTAINER NO.: MRSU5588444	Quantity of Goods 1 PALLET	Description of Goods CONTROL PANEL **HSCODE: 853710**	Said to contain	Gross weight, kg. 218,000	Measurement, m ³ 1,091
				SEAL : B193312	

TOTAL **1 PALLET** **218,000 KGS** **1,091 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.

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

- a) 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
- b) 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 02.08.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany



As agent only for SACO SHIPPING LINE LIMITED LIMASSOL

