

Ships Bag for MB/L 721513432

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Container-No.: MRKU4134911 40' HIGH CUBE CONTAINER Seal-No.: B140177

Vessel: SAC0914 / MAERSK MONTE LINZOR

ETS:

Master-B/L.: 721513432

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
GCHAM260	VIANEY GARCIA SANTOYO MEXICO	15	PALLETS	S.T.C DENTAL MATERIALS HS CODE: 28181011,38249996	7682.000	16.843
VER284658	3001431835	1	PALLET	MEDICAL EQUIPMENT HS CODE: 85072080 S.P. 238	362.710	0.998
VER284658	3001452180	2	CARTONS	SAFETY EQUIPMENT HS CODE: 90271010 S.P. 188	4.140	0.048
VER284658	HD 5002683432 LPE039956 / 2200553 MEXICO D.F. / MEXICO NR 1-2	2	PACKAGES	MEDICAL EQUIPMENT HS CODE: 90192010 90192090	115.000	0.825
VER284660	PRETTL DE MEXICO MEXICO 901956263 901955699 901957749 901957750	3	PACKAGES	CONNECTORS & BRASS TINNED HS CODE: 8535	406.000	2.420

Manifest

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Container-No.: MRKU4134911 40' HIGH CUBE CONTAINER Seal-No.: B140177
 Vessel: SAC0914 / MAERSK MONTE LINZOR
 ETS:
 Master-B/L.: 721513432

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
VER284670	MOCOM COMPOUNDS PLASTIC S DE RL DE CV PO# 117268-03 & 117331-03 MX CCPO # 4500820791 VERACRUZ PORT / MEXICO TA 447134 / 82779406	1	PALLET	HEAT TREATED WITH 40 BAGS OF PLASTIC GRANULES ALCOM PC 740/4 UV CC1320-08LG HS CODE: 3907 4000 TA 447134 / 82779406 GROSS WEIGHT: 1030 KGS NET WEIGHT: 1000 KGS . * ATN: ALDO JUAREZ EMAIL: ALDO.JUAREZ@MOCOM PHONE: +52 (81) 1821-0921 RFC APM160705UL3 ** TELEFONO: OF: 22 9272 6600 MOVIL: 229 343 9547 RFC: BAAJ350723NPA CONTACT: DANIELA LEVI ARCOS & ELVIA USCANGA EMAIL : DANIELA.LEVI@AAAM EUSCANGA@AAAMEF BEATRIZ.BARRANCO@	1030.000	2.014
VER284687	HARTING MEXICO MANUFACTURING SA DE CV 2026-20604	8	PACKAGES	TECHNOMELT PA 638 BLACK HS-CODE: 390890	4380.800	12.978
VER284715	INVOICE: 90058793 DELIVERY NOTE: 80102723, 80102720, 80102719	8	PALLETS	ANTI-PINCH SENSOR HS CODE: 85389099	900.000	7.910

Manifest

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Container-No.: MRKU4134911 40' HIGH CUBE CONTAINER Seal-No.: B140177

Vessel: SAC0914 / MAERSK MONTE LINZOR

ETS:

Master-B/L.: 721513432

BL-Ref	Marks & Nos	Qty	Packing	Description of goods	Kos	Cbm
VER284715	BENECKE-KALIKO GMBH GRUPO ANTOLIN TLAXCALA	3	PALLETS	AUTOMOTIVE SPARE PARTS AS PER INVOICE: 90019297 HS-CODE: 39211200	1105.000	2.898
VER284755	PO 0929361970	1	CASE	PARTS FOR DAIRY EQUIPMENT HS CODE: ____???	84.000	0.371
VER381954	HERCAB MERIDA, YUCATAN MEXICO NO. 1/9 - 9/9	9	PACKAGES	STRESSING JACKS, HYDR. PUMP UNITS, SETS OF WEDGES, BARRELS, STRESSING GRIPS, GAUGES, HEAD ADAPTER, G UIDE TUBES, SEAL KITS, SETS OF CLAMPING JAWS, SPRI NGS, PRESSURE RELIEF VALVES HS -CODES: 84798997, 90 262040, 82055980, 73079910, 84798070, 84849000 NET WEIGHT: 2713,00 KG TAX-ID CONSIGNEE: HER0109184N0	3162.000	7.134

Total**Quantity
53****Grossweight Measurement
19.231.650 54.439**

 MAERSK		NON-NEGOTIABLE WAYBILL		SCAC MAEU B/L No. 721513432
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. 721513432 Export references 606HAM1678BECH		
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		Svc Contract 299542652 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.		
Notify Party (see clause 22) SAME AS CONSIGNEE EMAIL: IMPORT@INTERTEAM.COM.MX		Onward inland routing (Not part of Carriage as defined in clause 1. For account and risk of Merchant)		
Vessel MAERSK MONTE LINZOR	Voyage No. 625S	Place of Receipt. Applicable only when document used as Multimodal Waybill Hamburg		
Port of Loading Hamburg	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 53 PACKAGE MRKU 413491-1 40/DRY 9'6 15 PALLETS GROSS WEIGHT: 7682.000 KGS MEASUREMENT: 16.843 CBM S.T.C DENTAL MATERIALS HS CODE: 28181011,38249996 1 PALLET GROSS WEIGHT: 362.710 KGS MEASUREMENT: 0.998 CBM MEDICAL EQUIPMENT HS CODE: 85072080 S.P. 238 3 PACKAGES GROSS WEIGHT: 406.000 KGS MEASUREMENT: 2.420 CBM CONNECTORS & BRASS TINNED HS CODE: 8535 1 PALLET GROSS WEIGHT: 1030.000 KGS MEASUREMENT: 2.014 CBM HEAT TREATED WITH 40 BAGS OF PLASTIC GRANULES 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 19231.650 KGS	Measurement 54.439 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)

ALCOM PC 740/4
 UV
 CC1320-08LG
 HS CODE: 3907 4000
 TA 447134 / 82779406
 GROSS WEIGHT: 1030 KGS
 NET WEIGHT: 1000 KGS

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*

ATN: ALDO JUAREZ
 EMAIL:
 ALDO.JUAREZ@MOCOM.MX
 PHONE: +52 (81) 1821-0921
 RFC APM160705UL3

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TELEFONO: OF: 22 9272 6600
 MOVIL: 229 343 9547
 RFC: BAAJ350723NPA
 CONTACT: DANIELA LEVI
 ARCOS
 & ELVIA USCANGA
 EMAIL :
 DANIELA.LEVI@AAAMERICA.COM
 .MX,
 EUSCANGA@AAAMERICA.COM.MX,
 BEATRIZ.BARRANCO@AAAMERICA
 .COM.MX.
 8 PACKAGES GROSS WEIGHT: 4380.800 KGS MEASUREMENT: 12.978 CBM
 TECHNOMELT PA 638 BLACK
 HS-CODE: 390890
 2 CARTONS GROSS WEIGHT: 4.140 KGS MEASUREMENT: 0.048 CBM
 SAFETY EQUIPMENT
 HS CODE: 90271010
 S.P. 188
 8 PALLETS GROSS WEIGHT: 900.000 KGS MEASUREMENT: 7.910 CBM

Freight & Charges		Rate	Unit	Currency	Prepaid	Collect
Charges Name	Prepaid/Collect	Invoice Party		Customer Code	Collection Business Unit	
Terminal Handling Service - Destination	Collect	SACO SHIPPING GMBH		11314343	Maersk Deutschland (Hamburg)	
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	SACO SHIPPING GMBH		11314343	Maersk Deutschland (Hamburg)	
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)	

ANTI-PINCH SENSOR
HS CODE: 85389099
2 PACKAGES GROSS WEIGHT: 115.000 KGS MEASUREMENT: 0.825 CBM
MEDICAL EQUIPMENT
HS CODE: 90192010
90192090
3 PALLETS GROSS WEIGHT: 1105.000 KGS MEASUREMENT: 2.898 CBM
AUTOMOTIVE SPARE PARTS
AS PER INVOICE: 90019297
HS-CODE: 39211200
1 CASE GROSS WEIGHT: 84.000 KGS MEASUREMENT: 0.371 CBM
PARTS FOR DAIRY EQUIPMENT
HS CODE:-----?
9 PACKAGES GROSS WEIGHT: 3162.000 KGS MEASUREMENT: 7.134 CBM
STRESSING JACKS, HYDR.
PUMP
UNITS, SETS OF WEDGES,
BARRELS, STRESSING
GRIPS,
GAUGES, HEAD ADAPTER, G
UIDE TUBES, SEAL KITS,
SETS OF
CLAMPING JAWS, SPRI
NGS, PRESSURE RELIEF
VALVES HS
-CODES: 84798997, 90
262040, 82055980,
73079910,
84798070, 84849000 NET
WEIGHT: 2713,00 KG
TAX-ID
CONSIGNEE: HER0109184N0

MRKU4134911 40 DRY 9'6 53 PACKAGE 19231.650 KGS 54.439 CBM

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

Shipper Seal : B140177

The Merchant(s) warrant and represent that this shipment and/or Goods will comply at all times with European Union, United States and United Nations sanctions and/or export control laws (Sanctions Laws), and that this shipment and/or Goods do not involve, whether directly or indirectly, any entity or person identified, or owned or controlled by any such entity or person identified, on the U.S. Treasury Departments Office of Foreign Asset Control (OFAC) list of Specially Designated Nationals and Blocked Persons, or any other similar list maintained by the European Union, or as promulgated by the United Nations Security Council (Designated Person). If, in the Carriers reasonable opinion, this shipment and/or Goods are in violation of the Carriers policy on Russia [<https://www.maersk.com/news/articles/2022/02/24/russia-ukraine-situation-update>], Sanctions Laws or involves any Designated Person, the shipment and/or Goods will be returned to the origin at Carriers sole and unfettered discretion, and the Merchant(s) shall indemnify and hold harmless the Carrier, its servants and agents, for any breach of this clause. The Merchant(s) agree that the Carrier may stop the shipment and/or Goods in transit or withhold release of the shipment and/or Goods pending any investigation into compliance with this clause by the Merchant(s).

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	

valid from March 1st 2026

saco [illegible]

3.210,74 USD	3.210,74 USD	debit to Interteam
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0.00 USD

0,00 USD

0,00 USD

0,00 USD

0,00 USD

0.00 USD

1.306,54 USD

8,42 USD

8,69 USD

0,00 USD

51,91 USD

0,00 USD

4.586,30 USD

4.586,30 USD CREDIT OR DEBIT TO INTERTAEM

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			

Shipper Adentatec GmbH Dr.Konrad-Wiegand-Str. 9 63939 Wörth a. Main Germany		B/L No. GCHAM26060308	
Consigned to order of Vianey Garcia Santoyo Playa Azul No. 266 Col. Reforma Iztaccihuatl Norte 08810 Mexico, MEX Mexico, tax id:GASV751230-LY6		 115, OMONIA AVENUE PAROUTIS BLDG., 3 rd Floor 3045 LIMASSOL	
Notify Party and address Vianey Garcia Santoyo Playa Azul No. 266 Col. Reforma Iztaccihuatl Norte 08810 Mexico, MEX Mexico, tax id:GASV751230-LY6			
Ocean Vessel MAERSK MONTE LINZOR	Voyage No. SAC0914	Port of Loading Hamburg	Place of Acceptance Hamburg
Port of Discharge Veracruz	Place of Delivery Veracruz	Freight payable Veracruz	Number of original Bills of Lading E / Express B/L
Marks and Nos. VIANEY GARCIA SANTOYO Mexico		Quantity and description of goods 15 Pallet(s) S.T.C dental materials HS Codes: 28181011, 38249996	Gross weight, kg Measurement, m³ 7.682kg
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.	
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.		Place and date of issue Norderstedt / 2026-JUN-21	
		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;
 - tranship or carry the Goods on another vessel or 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 stowed 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 returned 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.

This product is used in a hermetically sealed state. So, it is not an object of the SDS system. This document is provided to customers as reference information for the safe handling of the product. The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Panasonic Corporation makes no warranty expressed or implied.

PRODUCT SAFETY DATA SHEET

1 Chemical product and company identification

Name of Product : Poly-carbonmonofluoride lithium battery
 Name of Company : Panasonic Energy Co., Ltd.
 Address : 1-1 Matsushita-cho, Moriguchi-city, Osaka, 570-8511, Japan
 Emergency Contact : +81-80-9932-3190 (JST Working hours)
 +81-6-6991-1141 (Holiday)

2 Hazards identification

GHS Classification : No applicable
 Toxicity : Vapor generated from burning batteries, may irritate eyes, skin and throat.
 Hazard : Electrolyte and lithium metal are inflammable.
 Risk of explosion by fire if batteries are disposed in fire or heated above 100 degrees C.
 Stacking or jumbling batteries may cause external short circuits, heat generation, fire or explosion.

3 Composition/information of ingredients

Component	Material	CAS RN	Content (%)
Positive electrode	Poly-carbonmonofluoride	51311-17-2	5 - 15
Negative electrode	Lithium metal	7439-93-2	0.9 - 4
Electrolyte	1,2-dimethoxyethane	110-71-4	2 - 4
	Gamma-butyrolactone	96-48-0	4 - 10
Others (Steel or Plastic parts)	Steel	7439-89-6, 7440-47-3	60 - 90
	Polypropylene	9003-07-0	1 - 10

Lithium content per cell

Model Number	Lithium content(g)	Model Number	Lithium content(g)	Model Number	Lithium content(g)	Model Number	Lithium content(g)
BR1216	0.008	BR1616	0.02	BR2016	0.02	BR2320	0.03
BR1220	0.01	BR1632	0.04	BR2020	0.03	BR2325	0.05
BR1225	0.01			BR2032	0.06	BR2330	0.08
						BR3032	0.15

4 First aid measures (in case of electrolyte leakage from the battery)

- Eye contact : Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing. Get immediate medical treatment. If appropriate procedures are not taken, this may cause eye injury.
- Skin contact : Wash the affected area under tepid running water using a mild soap. If appropriate procedures are not taken, this may cause sores on the skin. Get medical attention if irritation develops or persists.
- Inhalation : Remove to fresh air immediately. Get medical treatment immediately.

5 Firefighting measures

- Fire extinguishing agent : Alcohol-resistant foam and dry sand are effective.
- Extinguishing method : Be sure on the windward to extinguish the fire, since vapor may make eyes, nose and throat irritate, Wear the respiratory protection equipment in some cases.

6 Accidental release measures (in case of electrolyte leakage from the battery)

- Take up with absorbent cloth, treat cloth as inflammable.
- Move the battery away from the fire.

7 Handling and storage

- Handling :
 - When packing the batteries, do not allow battery terminals to contact each other, or contact with other metals. Be sure to pack batteries by providing partitions in the packaging box, or in a separate plastic bag so that the single batteries are not mixed together.
 - Use strong material for packaging boxes so that they will not be damaged by vibration, impact, dropping and stacking during their transportation.
 - Do not short-circuit, recharge, deform, throw into fire or disassemble.
 - Do not mix different type of batteries.
 - Do not solder directly onto batteries.
 - Insert the battery correctly in electrical equipment.
- Storage :
 - Do not let water penetrate into packaging boxes during their storage and transportation.
 - Do not store the battery in places of the high temperature or under direct sunlight.
 - Please also avoid the places of high humidity. Be sure not to expose the battery to condensation, rain or frozen condition

8. Exposure controls and personal protection

Acceptable concentration : Not specified about Lithium Battery.
Facilities : Nothing in particular.

Protective Equipment (in case of electrolyte leakage from the battery)

Respiratory Protection : For most condition no respiratory protection.
Hand Protection : Safety gloves.
Eye Protection : Safety goggle

9. Physical and chemical properties

Appearance : Coin shape
Nominal Voltage : 3 V

10. Stability and reactivity

Since batteries utilize a chemical reaction they are actually considered a chemical product.

As such, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, the various usage conditions such as discharge, ambient temperature, etc. are not maintained within the specified ranges the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage.

11. Toxicological information

Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.

12. Ecological information

In case of the worn out battery was disposed in land, the battery case may be corroded, and leak electrolyte. However, there is no environmental impact information.

Mercury (Hg), Cadmium (Cd) and Lead (Pb) are not used in cell.

13. Disposal considerations

When the battery is worn out, dispose of it under the ordinance of each local government.

14. Transport information

Handling

During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.

During the transportation do not allow packages to be dropped or damaged.

Proper shipping name : Lithium metal batteries

UN Number, UN Class : UN3090, Class9 (for the Air transport by PI968 Section IA or IB)
: Exemption (for the Marine transport SP188 and the Air transport by Section II of PI 969 or 970)
Even though the cells are classified as lithium metal batteries (UN3090 or UN3091), they are not subject to some requirements of Dangerous Goods Regulations because they meet the following:

1. for cells, the lithium content is not more than 1 g ;
2. each cell is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3 ;
3. each cell is manufactured in ISO9001 certified factory ;
4. the test summary is available from ;

<https://industrial.panasonic.com/ww/downloads/battery-test-summary>

Please refer to the following reference information about concrete ways of transportation. Actual content of packaging label and shipping documents varies by shipping companies. Make sure to confirm in advance with your shipping company.

Information of reference

	Reference	Packing Instruction(PI)/ Special provision(SP)	Note
Air transport	IATA DGR	PI 968 Section I A	Cells, Cargo Aircraft only; Net quantity per package Max. 35kg
		PI 968 Section I B	Cells, Cargo Aircraft only; net quantity per package Max. 2.5kg
		PI 969 Section II	Cells packed with equipment
		PI 970 Section II	Cells contained in equipment, button cell batteries
Marine transport	IMDG Code	SP 188	

15. Regulatory information

- IATA Dangerous Goods Regulations Edition 64 (IATA DGR)
- IMO International Maritime Dangerous Goods Code 2020 and 2022 Edition (IMDG Code)
- UN Recommendations on the Transportation of Dangerous Goods, Model Regulations
- UN Recommendations on the Transportation of Dangerous Goods, Manual of Tests and Criteria
- EU Battery Directive (2006/66/EC, 2013/56/EU)
- Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- Act on Preventing Environmental Pollution of Mercury (Japan)

16. Other information

This PSDS is provided to customers as reference information in order to handle batteries safely.

It is necessary for the customer to take appropriate measures depending on the actual situation such as the individual handling, based on this information.

Prepared by : Engineering Department
Energy Device Business Division
Panasonic Energy Co., Ltd.

Lithium Battery Test Summary / UN38.3 試験結果要約**Product manufacturer**

Address/住所

Telephone/電話番号

e-mail

URL

Panasonic Corporation

1-1 Matsushita-cho, Moriguchi City, Osaka 570-8511, Japan

+81-6-6994-4560

un38.3_microbattery@ml.jp.panasonic.com

https://www.panasonic.com/global/home.html

Test laboratory

Address/住所

Telephone/電話番号

e-mail

URL

Panasonic Corporation

1-1 Matsushita-cho, Moriguchi City, Osaka 570-8511, Japan

+81-6-6994-4560

un38.3_microbattery@ml.jp.panasonic.com

https://www.panasonic.com/global/home.html

Description of Product / 製品情報

Model Number/品番

Type/タイプ

Physical description/物理特性

Mass/質量

Lithium content/リチウム含有量

Watt-hour rating/ワット時定格値

Nominal Voltage/公称電圧

Nominal Capacity/公称容量

BR2330

Lithium metal cell

Non-rechargeable, Coin

3.2 g

0.08 g

Not applicable

3.0 V

255 mAh

Test Results / 結果

Identification number/番号

Date of test report/レポート発行日

Reference edition/参照

CP0006-7

2008/07/30

UN Manual of Tests and Criteria 4th Amendment 1 edition

UN Manual of Tests and Criteria 国連勧告テスト判定基準	Results 結果	Remarks 備考
T1 : Altitude simulation / 高度シミュレーション	Pass / 合格	
T2 : Thermal Test / 温度試験	Pass / 合格	
T3 : Vibration / 振動	Pass / 合格	
T4 : Shock / 衝撃	Pass / 合格	
T5 : External short circuit / 外部短絡	Pass / 合格	
T6 : Impact / 衝突、Crush / 圧壊	Pass / 合格	Impact / 衝突
T7 : Overcharge / 過充電	-	for rechargeable batteries only / 充電式電池のみ
T8 : Forced discharge / 強制放電	Pass / 合格	

Hereby we certify that this model of Lithium battery meets the requirements of each test in the UN Manual of Tests and Criteria Part III, sub-section 38.3.

上記テストは国連勧告テスト(Manual of Tests and Criteria, Part III, sub-section 38.3.)に従い確認された結果であることを証明致します。

Signature:



Name and Title: Kazuyuki Amano / Manager

Energy Device Business Division

VISION BATTERY

Sealed Lead Acid Battery



MATERIAL SAFETY DATA SHEET

SECTION 1 - GENERAL INFORMATION

MANUFACTURER'S NAME: SHENZHEN CENTER POWER TECH CO.,LTD	EMERGENCY TELEPHONE NO.: 86-755-84318088
ADDRESS: CENTER POWER INDUSTRIAL PARK TONGFU INDUSTRIAL DISTRICT DAPENG TOWN CHINA	OTHER INFORMATION CALLS: 86-755-84318031
PERSON RESPONSIBLE FOR PREPARATION Shouzhong Yi, Safety, Health & Environmental Affairs Manager	Revised Date: JAN 03, 2023

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

C.A.S.	PRINCIPAL HAZARDOUS COMPONENT(S) (chemical & common name(s))	Hazard Category	% Weight	ACGIH TLV - mg/m ³	OSHA PEL/TWA - mg/m ³
7439-92-1	Lead/Lead Oxide (Litharge)/Lead Sulfate	Acute-Chronic	60-70	0.05 mg/m ³	0.05 mg/m ³
7440-70-2	Calcium (lead calcium alloy)	Reactive	<0.15	Not Established	Not Established
7440-31-5	Tin	Chronic	<1	2	2
7440-38-2	Arsenic (inorganic)	Acute-Chronic	<1	0.01	0.01
7664-93-9	Sulfuric Acid (Battery Electrolyte)	Reactive-Oxidizer Acute -Chronic	10-15	1.0	1.0
Not applicable	Inert Ingredients	Not applicable	<6	Not Applicable	Not Applicable

Note: PEL's for individual states may differ from OSHA's PEL's. Check with local authorities for the applicable state PEL's.

OSHA – Occupational Safety and Health Administration; ACGIH – American Conference of Governmental Industrial Hygienists; NIOSH – National Institute for Occupational Safety and Health.

COMMON NAME: (Used on label) Sealed Lead-acid Battery

(Trade Name & Synonyms) lead acid: CP, CGA, CGTA, FM, UPS, CL, CG, CT, CTA, HFS, EV Series

Chemical Family: Toxic and Corrosive Material Mixture

Chemical Name: Battery, Storage, Lead Acid, Valve Regulated

Formula: Lead/Acid

SECTION 3 -- HAZARD IDENTIFICATION

Signs and Symptoms of Exposure	1. Acute Hazards	Do not open battery. Avoid contact with internal components. Internal components include lead and absorbed electrolyte. Electrolyte - Electrolyte is corrosive and contact may cause skin irritation and chemical burns. Electrolyte causes severe irritation and burns of eyes, nose and throat. Ingestion can cause severe burns and vomiting. Lead - Direct skin or eye contact may cause local irritation. Inhalation or ingestion of lead dust or fumes may result in headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia and leg, arm and joint pain.				
	2. Subchronic and Chronic Health Effects	Electrolyte - Repeated contact with electrolyte causes irritation and skin burns. Repeated exposure to mist may cause erosion of teeth, chronic eye irritation and/or chronic inflammation of the nose, throat and lungs. Lead - Prolonged exposure may cause central nervous system damage, gastrointestinal disturbances, anemia, irritability, metallic taste, insomnia, wrist-drop, kidney dysfunction and reproductive system disturbances. Pregnant women should be protected from excessive exposure to prevent lead from crossing the placental barrier and causing infant neurological disorders. California Proposition 65 Warning: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm, and during charging, strong inorganic acid mists containing sulfuric acid are evolved, a chemical Known to the State of California to cause cancer. Wash hands after handling.				
Medical Conditions Generally Aggravated by Exposure	Contact with internal components if battery is broken or opened, then persons with the following medical conditions must take precautions: pulmonary edema, bronchitis, emphysema, dental erosion and tracheobronchitis.					
Routes of Entry	Inhalation - YES Ingestion - YES		Eye Contact- YES			
Chemical(s) Listed as Carcinogen or potential Carcinogen	Proposition 65 - YES		National Toxicology Program - YES		I.A.R.C. Monographs - YES	O.S.H.A. - NO

SECTION 4 - FIRST AID MEASURES

Emergency and First Aid Procedures	Contact with internal components if battery is opened/broken.
1. Inhalation	Remove to fresh air and provide medical oxygen/CPR if needed. Obtain medical attention.
2. Eyes	Immediately flush with water for at least 15 minutes, hold eyelids open. Obtain medical attention.
3. Skin	Flush contacted area with large amounts of water for at least 15 minutes. Remove contaminated clothing and obtain medical attention if necessary.
4. Ingestion	Do not induce vomiting. If conscious drink large amounts of water/milk. Obtain medical attention. Never give anything by mouth to an unconscious person.

SECTION 5 - FIREFIGHTING MEASURES

Flash Point – Not Applicable	Flammable Limits in Air % by Volume: Not Applicable	Extinguishing Media – Class ABC, CO ₂ , Halon	Auto-Ignition Temperature 675°F (polypropylene)
Special Fire Fighting Procedures	Lead/acid batteries do not burn, or burn with difficulty. Do not use water on fires where molten metal is present. Extinguish fire with agent suitable for surrounding combustible materials. Cool exterior of battery if exposed to fire to prevent rupture. The acid mist and vapors generated by heat or fire are corrosive. Use NIOSH approved self-contained breathing apparatus (SCBA) and full protective equipment operated in positive-pressure mode.		
Unusual Fire and Explosion Hazards	Sulfuric acid vapors are generated upon overcharge and polypropylene case failure. Use adequate ventilation. Avoid open flames/sparks/other sources of ignition near battery.		

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Procedures for Cleanup: Avoid contact with any spilled material. Contain spill, isolate hazard area, and deny entry. Limit site access to emergency responders. Neutralize with sodium bicarbonate, soda ash, lime or other neutralizing agent. Place battery in suitable container for disposal. Dispose of contaminated material in accordance with applicable local, state and federal regulations. Sodium bicarbonate, soda ash, sand, lime or other neutralizing agent should be kept on-site for spill remediation.

Personal Precautions: Acid resistant aprons, boots and protective clothing. ANSI approved safety glasses with side shields/face shield recommended.

Environmental Precautions: Lead and its compounds and sulfuric acid can pose a severe threat to the environment. Contamination of water, soil and air should be prevented.

SECTION 7 - HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage	Store away from reactive materials, open flames and sources of ignition as defined in Section 10 – Stability and Reactivity Data. Store batteries in cool, dry, well-ventilated areas. Batteries should be stored under roof for protection against adverse weather conditions. Avoid damage to containers.
Other Precautions	GOOD PERSONAL HYGIENE AND WORK PRACTICES ARE MANDATORY. Refrain from eating, drinking or smoking in work areas. Thoroughly wash hands, face, neck and arms, before eating, drinking and smoking. Work clothes and equipment should remain in designated lead contaminated areas, and never taken home or laundered with personal clothing. Wash soiled clothing, work clothes and equipment before reuse.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory Protection (Specify Type)	None required under normal conditions. Acid/gas NIOSH approved respirator is required when the PEL is exceeded or employee experiences respiratory irritation.				
Ventilation	Store and handle in dry ventilated area.	Local Exhaust	When PEL is exceeded.	Mechanical (General)	Not Applicable
Protective Gloves	Wear rubber or plastic acid resistant gloves.		Eye Protection	ANSI approved safety glasses with side shields/face shield recommended	
Other Protective Clothing or Equipment	Safety shower and eyewash.				

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: Not Applicable	Vapor Pressure	Not Applicable	Specific Gravity	1.250-1.320 pH <2	Melting Point: >320°F (polypropylene)
Percent Volatile By Volume	Not Applicable	Vapor Density	Hydrogen: 0.069 (Air = 1) Electrolyte: 3.4 @ STP (Air = 1)	Evaporation Rate	Not applicable
Solubility In water	100% soluble (electrolyte)			Reactivity in Water	Electrolyte – Water Reactive (1)
Appearance and Odor:	Battery: Co-polymer polypropylene, solid, may be contained within an outer casing of aluminum or steel. Case has metal terminals. Lead: Gray, metallic, solid; brown/grey oxide Electrolyte: Odorless, liquid absorbed in glass mat material. No apparent odor.				

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable	Conditions to Avoid: Avoid overcharging and smoking, or sparks near battery surface. High temperatures-cases decompose at >320°F.
Incompatibility (Materials to Avoid)	Sparks, open flames, keep battery away from strong oxidizers.
Hazardous Decomposition Products	Combustion can produce carbon dioxide and carbon monoxide.
Hazardous Polymerization	Hazardous Polymerization has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

GENERAL: The primary routes of exposure to lead are ingestion or inhalation of dust and fumes.

ACUTE:

INHALATION/INGESTION: Exposure to lead and its compounds may cause headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia, and pain in the legs, arms and joints. Kidney damage, as well as anemia, can occur from acute exposure.

CHRONIC:

INHALATION/INGESTION: Prolonged exposure to lead and its compounds may produce many of the symptoms of short-term exposure and may also cause central nervous system damage, gastrointestinal disturbances, anemia, and wrist drop. Symptoms of central nervous system damage include fatigue, headaches, tremors, hypertension, hallucination, convulsions and delirium. Kidney dysfunction and possible injury has also been associated with chronic lead poisoning. Chronic over-exposure to lead has been implicated as a causative agent for the impairment of male and female reproductive capacity, but there is at present, no substantiation of the implication. Pregnant women should be protected from excessive exposure. Lead can cross the placental barrier and unborn children may suffer neurological damage or developmental problems due to excessive lead exposure in pregnant women.

SECTION 12 - ECOLOGICAL INFORMATION

In most surface water and groundwater, lead forms compounds with anions such as hydroxides, carbonates, sulfates, and phosphates, and precipitates out of the water column. Lead may occur as sorbed ions or surface coatings on sediment mineral particles or may be carried in colloidal particles in surface water. Most lead is strongly retained in soil, resulting in little mobility. Lead may be immobilized by ion exchange with hydrous oxides or clays or by chelation with humic or fulvic acids in the soil. Lead (dissolved phase) is bioaccumulated by plants and animals, both aquatic and terrestrial.

SECTION 13 - DISPOSAL CONSIDERATIONS

Lead-acid batteries are completely recyclable. Return whole scrap batteries to distributor, manufacturer or lead smelter for recycling. For information on returning batteries to Vision Battery for recycling call 251-7779888. For neutralized spills, place residue in acid-resistant containers with sorbent material, sand or earth and dispose of in accordance with local, state and federal regulations for acid and lead compounds. Contact local and/or state environmental officials regarding disposal information.

SECTION 14 - TRANSPORT INFORMATION

All Vision AGM, Gel batteries CG, CP, FM, CL series and CTA series are valve regulated lead acid (VRLA) batteries.

Vision's VRLA batteries have passed vibration, pressure differential and free flowing acid tests under CFR 49 173.159(d) and meet IATA Special Provisions A48 and A67. The batteries are securely packaged, protected from short circuits and labeled "Non-Spillable." Vision's VRLA batteries are exempt from DOT Hazardous Material Regulations and IATA Dangerous Goods Regulations.

Note: The shipper has the option of shipping the batteries Hazmat regulated under UN2800. Additional labeling and paperwork would be required. See CFR 49 and IATA Dangerous Goods Regulations for more information.

U.S. DOT PROPER SHIPPING NAME: Batteries, wet, non-spillable	
U.S. DOT HAZARD CLASS: 8	
U.S. DOT ID NUMBER: UN2800	OR
U.S. DOT PACKING GROUP: III	Excepted from the requirements because batteries have passed the Vibration and Pressure Differential performance tests, and ruptured case test for Nonspillable designation.
U.S. DOT LABEL: CORROSIVE	
IMO PROPER SHIPPING NAME: Batteries, wet, non-spillable	Ems # - F-A, S-B
IMO U.N. CLASS: 8	
IMO U.N. NUMBER: UN 2800	
IMO LABEL: CORROSIVE	
IMO VESSEL STOWAGE: A	
IATA PROPER SHIPPING NAME: Batteries, wet, non-spillable	Lead-Acid Rechargeable Battery as per IMDG SP.238. And NON-DG Shipment
IATA U.N. CLASS: 8	OR
when IATA U.N. NUMBER: UN 2800	Excepted from the requirements because batteries have passed the vibration and pressure differential performance tests, and ruptured case test for nonspillable designation. And,
IATA LABEL: CORROSIVE	packaged for transport, the terminals are protected from short circuit.
ERG Code - 8L	

SECTION 15 - REGULATORY INFORMATION

U.S. HAZARDOUS UNDER HAZARD COMMUNICATION STANDARD:	LEAD - YES ARSENIC - YES SULFURIC ACID - YES
INGREDIENTS LISTED ON TSCA INVENTORY:	YES
CERCLA SECTION 304 HAZARDOUS SUBSTANCES:	LEAD - YES ARSENIC - YES SULFURIC ACID - YES
	RQ: N/A* RQ: 1 POUND RQ: 1000 POUNDS
* RQ: REPORTING NOT REQUIRED WHEN DIAMETER OF THE PIECES OF SOLID METAL RELEASED IS EQUAL TO OR EXCEEDS 100 µm (micrometers).	
EPCRA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE:	SULFURIC ACID - YES
EPCRA SECTION 313 TOXIC RELEASE INVENTORY:	LEAD - CAS NO: 7439-92-1 ARSENIC - CAS NO: 7440-38-2 SULFURIC ACID - CAS NO: 7664-93-9

SECTION 16 - OTHER INFORMATION

THE INFORMATION ABOVE IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, VISION BATTERY MAKES NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES. ALTHOUGH REASONABLE PRECAUTIONS HAVE BEEN TAKEN IN THE PREPARATION OF THE DATA CONTAINED HEREIN, IT IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION. THIS MATERIAL SAFETY DATA SHEET PROVIDES GUIDELINES FOR THE SAFE HANDLING AND USE OF THIS PRODUCT; IT DOES NOT AND CANNOT ADVISE ON ALL POSSIBLE SITUATIONS, THEREFORE, YOUR SPECIFIC USE OF THIS PRODUCT SHOULD BE EVALUATED TO DETERMINE IF ADDITIONAL PRECAUTIONS ARE REQUIRED.

The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export-controlled information.



检测
CNAS L0748



NO. 1214040008

检 验 报 告

Test Report

样品名称： 阀控式密封铅酸蓄电池 CP1232S 12V 3.2AH

Name of Goods: Valve Regulated Lead Acid Battery

委托单位： 深圳市雄韬电源科技股份有限公司

Consignor: /



上海化工研究院检测中心

Shanghai Research Institute of Chemical Industry Testing Centre

上海化工研究院检测中心
检验报告
SRICI Testing Centre Test Report

No. 1214040008

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样品名称 Name of Sample	中文 Chinese	阀控式密封铅酸蓄电池 CP1232S 12V 3.2AH	
	英文 English	Valve Regulated Lead Acid Battery	
样品编号 Sample No.	1214040008		
委托单位 Consignor	深圳市雄韬电源科技股份有限公司 /		
生产单位 Manufacturer	深圳市雄韬电源科技股份有限公司 /		
检验方法 Test Method	联合国 关于危险货物运输的建议书 规章范本 (17th) ST/SG/AC.10/1/Rev.17 3.3章的特殊规定238 UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Regulations (17th)ST/SG/AC.10/1/Rev.17 Chapter 3.3 SPECIAL PROVISIONS 238		
判定标准 Criterion	联合国 关于危险货物运输的建议书 规章范本 (17th) ST/SG/AC.10/1/Rev.17 3.3章的特殊规定238 UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Regulations (17th)ST/SG/AC.10/1/Rev.17 Chapter 3.3 SPECIAL PROVISIONS 238		
样品外观 Appearance	黑色 塑胶外壳 Black Plastics cement shell		
样品接受日期 Accepted Date	2014-04-30	检测起始日期 Test Date	2014-05-04 — 2014-05-07
检测项目 Test Items	振动试验;压差试验;55℃漏液试验 Vibration test,Pressure differential test,Leakage test at 55℃		
检验结论 Conclusion	受检样品通过所有项目检测,检测结果合格。 The sample has passed all of the testing items 生效日期(Date): 2014-05-09		
备注 Remark	无。None.		
委托单位地址 Consignor Address	/		邮政编码 Post Code 518120

批准
Approver:
职务
Title:

张一明
审核
Checker:
副总工程师(Vice chief engineer)

编制
Compiler: 夏志

上海化工研究院检测中心 检验报告

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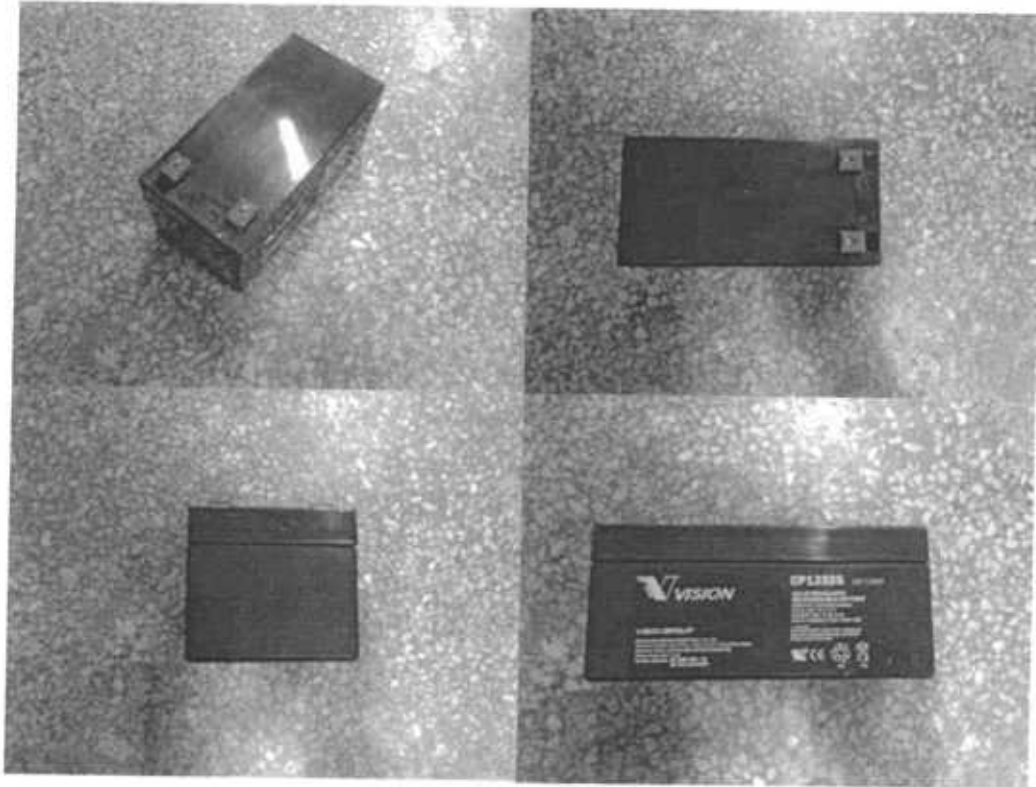
序号 No	检验项目名称 Name of Test Items	标准要求或标准条款号 Standard requirement or The Clause Number of Standard	检测结果 Test Result	本项结论 Conclusion	备注 Remark
1	振动试验 Vibration test	规章范本(17th) UN2800的特殊规定238(a) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(a)	无漏液。 None leakage of battery fluid.	合格。 Passed.	/
2	压差试验 Pressure differential test	规章范本(17th) UN2800的特殊规定238(a) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(a)	无漏液。 None leakage of battery fluid.	合格。 Passed.	/
3	55℃漏液试验 Leakage test at 55℃	规章范本(17th) UN2800的特殊规定238(b) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(b)	无漏液且无可见液体流动。 None leakage of battery fluid and there is no free liquid to flow.	合格。 Passed.	/
4	以下空白 This space intentionally left blank				
5					
检验环境条件 Test Environment Condition		环境温度:18℃-20℃;环境湿度:/% Ambient temperature:18℃-20℃;Ambient humidity:/%			
分包检验情况 Subcontracted Test Condition		检验项目 Test Item	/		
		分包实验室 Subcontracted Laboratory	名称 Name	邮编 Post Code	/
			地址 Address	电话 Tel	/

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**CP1232S****12V 3.2AH**

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

1.1 Product identifier

· **Trade name:** Valve Regulated Lead-acid Battery (VRLA Battery)

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

· **Application of the substance / the preparation:** Batteries

· **Uses advised against:** No further relevant information available.

1.3 Details of the supplier of the safety data sheet

· **Manufacturer/Supplier:**

CSB Energy Technology Co., Ltd.

No. 16 Gongye W. Rd.

Erzhen Village, Guantian District

Tainan City 72048

Taiwan (R.O.C.)

Phone: +886-6-698-7600

Fax: +886-6-698-7605

E-mail: service@csb-battery.com.tw

1.4 Emergency telephone number:

NVIC: +31 (0)88 755 8000: Only for the purpose of informing medical personnel in case of acute intoxications

· Taiwan Office: +886-2-2880-5600 (Business hour in Taiwan)

Europe Office: +31 (0) 180 418 140 (Keurmeesterstraat 28-30, 2984 BA Ridderkerk, The Netherlands)

Chemtec: (800) 424-9300 / +1 703 527-3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 4	H302	Harmful if swallowed.
Acute Tox. 4	H332	Harmful if inhaled.
Skin Corr. 1A	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
Carc. 1B	H350i	May cause cancer by inhalation.
Repr. 1A	H360FD-H362	May damage fertility. May damage the unborn child. May cause harm to breast-fed children.
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure.
Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.

2.2 Label elements

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS05

GHS07

GHS08

GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

lead dioxide

sulphuric acid

lead

tetrabromobisphenol-A

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Hazard statements

- H302+H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H350i May cause cancer by inhalation.
H360FD-H362 May damage fertility. May damage the unborn child. May cause harm to breast-fed children.
H372 Causes damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

- P260 Do not breathe dusts or mists.
P263 Avoid contact during pregnancy and while nursing.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

- EUH201 Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.
Restricted to professional users.

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

- PBT:** Not determined.
vPvB: Not determined.

Determination of endocrine-disrupting properties

CAS: 79-94-7 tetrabromobisphenol-A

List II

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Description:**

CAS: 9003-56-9 ABS

5 - 9%

Dangerous components:

CAS: 7439-92-1 EC number: 231-100-4	lead Repr. 1A, H360FD-H362; STOT RE 1, H372	40 - 60%
CAS: 1309-60-0 EC number: 215-174-5 Index number: 082-001-00-6	lead dioxide Repr. 1A, H360Df, STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332, EUH201 Specific concentration limits: Repr. 2; H361f: C ≥ 2.5 % STOT RE 2; H373: C ≥ 0.5 %	15 - 30%
CAS: 7664-93-9 EC number: 231-639-5 Index number: 016-020-00-8	sulphuric acid Skin Corr. 1A, H314 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 15 % Skin Irrit. 2; H315: 5 % ≤ C < 15 % Eye Irrit. 2; H319: 5 % ≤ C < 15 %	20 - 30%

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Trade name: Valve Regulated Lead-acid Battery (VRLA Battery)

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CAS: 7446-14-2 EC number: 231-198-9 Index number: 082-001-00-6	lead sulphate Repr. 1A, H360Df; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332, EUH201 Specific concentration limits: Repr. 2; H361f: C $\geq$ 2.5 % STOT RE 2; H373: C $\geq$ 0.5 %	1 - 10%
CAS: 79-94-7 EC number: 201-236-9 Index number: 604-074-00-0 Reg.nr.: 01-2119538800-42-XXXX	tetrabromobisphenol-A Carc. 2, H351; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	< 2.3%
CAS: 65997-17-3 EC number: 266-046-0	Fibrous Glass Carc. 1A, H350i	1 - 2%
SVHC		
CAS: 7439-92-1	lead	
CAS: 79-94-7	tetrabromobisphenol-A	
Additional information: For the wording of the listed hazard phrases refer to section 16.		

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

Take affected persons out of danger area and lay down.
Immediately remove any clothing soiled by the product.
In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately rinse with water.
Call a doctor immediately.

After eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a doctor immediately.

After swallowing:

Rinse out mouth and then drink plenty of water.
Do NOT induce vomiting.
Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**CO₂, foam or dry chemical. Use fire extinguishing methods suitable to surrounding conditions.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture**

There is a possibility of explosion of the product by heat.
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:

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Carbon monoxide

Carbon dioxide

Sulphur oxides (SO_x)

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained respiratory protective device.

· **Additional information**

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Wear protective clothing.

Do not touch or walk through the leakage.

Avoid formation of dust.

Keep away from ignition sources.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb spillage with dry earth, sand or other fire retardant material or covered by, put into sealed container for waste disposal. And then, neutralize the spillage with sodium bicarbonate or slaked lime, and wash off with plenty of water.

Use neutralising agent.

Pick up mechanically.

Dispose of the material collected according to regulations.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Do not dismantle or modify the product.

Do not do short-circuit between the terminals.

Ensure good ventilation/exhaustion at the workplace.

· **Information about fire and explosion protection:**

Hydrogen emission will occur during charging which will form explosive air mixture.

Keep ignition sources away - Do not smoke.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

· **Information about storage in one common storage facility:** Store away from oxidising agents.

· **Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection· **8.1 Control parameters**· **Ingredients with limit values that require monitoring at the workplace:****CAS: 7439-92-1 lead**

OEL (Ireland)	Long-term value: 0.15 mg/m ³ Repr 1A, BOELV
---------------	---

BOELV (EU)	Long-term value: 0.15 mg/m ³ as Pb
------------	--

CAS: 1309-60-0 lead dioxide

OEL (Ireland)	Long-term value: 0.15 mg/m ³ Repr 1A, BOELV
---------------	---

BOELV (EU)	Long-term value: 0.15 mg/m ³ as Pb
------------	--

CAS: 7664-93-9 sulphuric acid

OEL (Ireland)	Long-term value: 0.05 mg/m ³ IOELV
---------------	--

IOELV (EU)	Long-term value: 0.05 mg/m ³
------------	---

CAS: 7446-14-2 lead sulphate

OEL (Ireland)	Long-term value: 0.15 mg/m ³ Repr 1A, BOELV
---------------	---

BOELV (EU)	Long-term value: 0.15 mg/m ³ as Pb
------------	--

· **DNELs****CAS: 79-94-7 tetrabromobisphenol-A**

Oral	DNEL(long/systemic)	2.5 mg/kg bw/day (Consumer)
Dermal	DNEL(long/systemic)	125 mg/kg bw/day (Consumer)
		250 mg/kg bw/day (Workers (Industrial/Professional))
Inhalative	DNEL(long/systemic)	4.3 mg/m ³ (Consumer)
		17.6 mg/m ³ (Workers (Industrial/Professional))

· **PNECs****CAS: 79-94-7 tetrabromobisphenol-A**

PNEC(aqua)	0.016 mg/L (freshwater)
	0.00034 mg/L (marine water)
PNEC(STP)	1.5 mg/L (sewage treatment plant)
PNEC(sediment)	9 mg/kg sedi. dw (freshwater)
	1.8 mg/kg sedi. dw (marine water)
PNEC(soil)	0.031 mg/kg soil dw (soil)
PNEC(oral)	222.22 mg/kg food (food)

· **8.2 Exposure controls**· **Appropriate engineering controls** No further data; see section 7.· **Individual protection measures, such as personal protective equipment**· **General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

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Trade name: Valve Regulated Lead-acid Battery (VRLA Battery)

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Avoid contact with the eyes and skin.

The usual precautionary measures are to be adhered to when handling chemicals.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Hand protection**

Protective gloves

Only use chemical-protective gloves with CE-labelling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection** Safety glasses· **Body protection:** Protective work clothing· **Environmental exposure controls** No further relevant information available.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Physical state**

Solid

· **Form:**

Solid

· **Colour:**

Not determined.

· **Odour:**

Not determined.

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Not determined.

· **Boiling point or initial boiling point and boiling range**

Not applicable.

· **Flammability**

Not determined.

· **Lower and upper explosion limit**· **Lower:**

4 Vol %

· **Upper:**

75 Vol %

· **Flash point:**

Non-flammable.

· **Auto-ignition temperature:**

Not combustible.

· **Decomposition temperature:**

Not determined.

· **pH**

≤ 1

· **Viscosity:**· **Kinematic viscosity**

Not applicable.

· **Dynamic:**

Not applicable.

· **Solubility**· **water:**

Insoluble.

· **Partition coefficient n-octanol/water (log value)**

79-94-7 | tetrabromobisphenol-A | 5.90 log Pow (25 °C, EPA OPPTS 830.7560)

· **Vapour pressure:**

Not applicable.

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· Density and/or relative density	
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not applicable.
· Relative gas density	Not applicable.
· Particle characteristics	See section 3.
· 9.2 Other information	
· Explosive properties:	Product does not present an explosion hazard.
· Oxidising properties	No
· Evaporation rate	Not applicable.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** No decomposition if used and stored according to specifications.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
May produce violent reactions with bases.
Reacts with metals forming hydrogen.
- **10.4 Conditions to avoid** Keep away from heat and direct sunlight.
- **10.5 Incompatible materials:**
Strong oxidizing agents
Reducing agent
Alkaline materials (bases)
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity**
Harmful if swallowed or if inhaled.

· **LD/LC50 values relevant for classification:**

CAS: 7439-92-1 lead

Inhalative	LC50 (4h)	11 mg/L (vapour)
------------	-----------	------------------

CAS: 7664-93-9 sulphuric acid

Oral	LD50	2140 mg/kg (Rat)
Inhalative	LC50 (4h)	0.375 mg/L (Rat) (OECD Guideline 403, inhalation:aerosol)

CAS: 79-94-7 tetrabromobisphenol-A

Oral	LD50	> 5000 mg/kg (Rat) (OECD Guideline 401)
Dermal	LD50	> 2000 mg/kg (rabbit) (OECD Guideline 402)
Inhalative	LC50	≥ 0.5 mg/L (Rat) nominal 8 h

- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

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-IE

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· **Carcinogenicity**

May cause cancer by inhalation. Route of exposure: Inhalation.

· **Reproductive toxicity**

May damage fertility. May damage the unborn child. May cause harm to breast-fed children.

· **STOT-single exposure** Based on available data, the classification criteria are not met.· **STOT-repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

· **Aspiration hazard** Based on available data, the classification criteria are not met.· **11.2 Information on other hazards**· **Endocrine disrupting properties**

CAS: 79-94-7 | tetrabromobisphenol-A

List II

* **SECTION 12: Ecological information**· **12.1 Toxicity**· **Aquatic toxicity:****CAS: 7664-93-9 sulphuric acid**LC50 (96h) (static) > 16 - < 28 mg/L (fish) (Lepomis macrochirus)
nominalErC50 (72h) (static) > 100 mg/L (algae) (OECD Guideline 201, Desmodesmus subspicatus)
nominalEC50 (48h) (static) > 100 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna)
nominal**CAS: 7446-14-2 lead sulphate**

IC50 0.5 mg/L (Daphnia) (48h, Daphnia magna)

CAS: 79-94-7 tetrabromobisphenol-A

LC50 (48h) (dynamic) > 1.8 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna)

LC50 (96h) (dynamic) 1.1 mg/L (fish) (OECD Guideline 203, Oncorhynchus mykiss)

EC50 (3h) (static) > 15 mg/L (Bacteria) (OECD Guideline 209, activated sludge)
nominal

NOEC (21d) (dynamic) 0.38 mg/L (Daphnia) (Daphnia magna)

NOEC (dynamic) 0.16 mg/L (fish) (Pimephales promelas)
35 d

NOEC (96h) (static) 5.6 mg/L (algae) (EPA OTS 797.1050, Pseudokirchneriella subcapitata)

CAS: 65997-17-3 Fibrous Glass

LC50 (96h) (static) > 1000 mg/L (fish) (OECD Guideline 203, Danio rerio)

EC50 > 1000 mg/L (algae) (OECD Guideline 201, Pseudokirchneriella subcapitata)
3d, semi-static
> 1000 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna)
3d, semi-static· **12.2 Persistence and degradability**

79-94-7 | tetrabromobisphenol-A | 0 % (14d, OECD Guideline 301 C)

· **12.3 Bioaccumulative potential**

79-94-7 | tetrabromobisphenol-A | ca. 150 BCF (4d, EPA OPPTS 850.1730)

· **12.4 Mobility in soil**

79-94-7 | tetrabromobisphenol-A | 5.62 log Koc (calculation)

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· **12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

· **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.· **12.7 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations**· **13.1 Waste treatment methods**· **Recommendation:** Must be specially treated adhering to official regulations.· **Uncleaned packaging**· **Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information**· **14.1 UN number or ID number**· **ADR/RID/ADN, IMDG, IATA** UN2800· **14.2 UN proper shipping name**· **ADR/RID/ADN** 2800 BATTERIES, WET, NON-SPILLABLE, electric storage, ENVIRONMENTALLY HAZARDOUS· **IMDG, IATA** BATTERIES, WET, NON-SPILLABLE, electric storage· **14.3 Transport hazard class(es)**· **ADR/RID/ADN, IMDG, IATA**· **Class** 8 Corrosive substances.· **Label** 8· **14.4 Packing group**· **ADR/RID/ADN, IMDG, IATA** Void· **14.5 Environmental hazards:**

Not applicable.

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Hazard identification number (Kemler code):**

80

· **EMS Number:**

F-A,S-B

· **Stowage Category**

A

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable.

· **Transport/Additional information:**· **ADR/RID/ADN**· **Tunnel restriction code**

E

· **Remarks:****Special Provision:**

ADR/RID:

New and spent (used) batteries are exempted from all ADR/RID (special provision 598)

SEA transport:

non-spillable batteries meet the requirements of Special

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Provision 238, they are exempted from all IMDG codes and are not subject to special regulation for sea transport.

Air transport:

Special Provision A67: CSB's VRLA batteries meet the requirements of Packing Instruction 872.

The battery has been prepared for transport so as to prevent:

- a) A short circuit by the effective insulation of exposed terminals; and
- b) Unintentional activation.

Remarks:

All batteries are identified as "Battery, Electric Storage, Wet, Non-spillable" when transported by air, sea or by land transportation.

The battery(s) must be identified as above on the Bill of Lading and properly packed with their terminals protected from short circuit.

Our battery(s) warning label identifies each battery as NON SPILLABLE.

CSB VRLA-AGM batteries are classified as "Non spillable" for the purpose of transportation as result of passing the Vibration and Pressure Differential Test.

CSB VRLA-AGM batteries can be safely transported on deck, or under deck stored on either a passenger or cargo vessel as result of passing the Vibration and Pressure Differential Tests as described in the IMDG regulations (Special Provision 238).

· **UN "Model Regulation":**

UN 2800 BATTERIES, WET, NON-SPILLABLE, ELECTRIC STORAGE, 8, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category E1** Hazardous to the Aquatic Environment

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 30, 63, 72

· **Regulation (EU) No 649/2012**

CAS: 7439-92-1	lead	Annex I Part 1
CAS: 1309-60-0	lead dioxide	Annex I Part 1

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CAS: 7446-14-2 lead sulphate		(Contd. of page 10) Annex I Part 1
· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II		
CAS: 7439-92-1 lead		
· REGULATION (EU) 2019/1148		
· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))		
CAS: 7664-93-9 sulphuric acid	Limit value: > 15 - ≤ 40 %	20 - 30%
· Annex II - REPORTABLE EXPLOSIVES PRECURSORS		
None of the ingredients is listed.		
· Regulation (EC) No 273/2004 on drug precursors		
CAS: 7664-93-9 sulphuric acid		3
· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors		
CAS: 7664-93-9 sulphuric acid		3
· National regulations:		
· Other regulations, limitations and prohibitive regulations		
· Substances of very high concern (SVHC) according to REACH, Article 57		
CAS: 7439-92-1 lead		
CAS: 79-94-7 tetrabromobisphenol-A		
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.		

*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H332 Harmful if inhaled.
- H350i May cause cancer by inhalation.
- H351 Suspected of causing cancer.
- H360Df May damage the unborn child. Suspected of damaging fertility.
- H360FD May damage fertility. May damage the unborn child.
- H362 May cause harm to breast-fed children.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- EUH201 Contains lead. Should not be used on surfaces liable to be chewed or sucked by children.

· **Date of previous version:** 08.07.2023· **Version number of previous version:** 8.00· **Abbreviations and acronyms:**

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
 MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 UN: United Nations (also UNO: United Nations Organization)
 NOEC: No Observed Effect Concentration
 OECD: Organisation for Economic Co-operation and Development
 ASTM: American Society for Testing and Materials

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Revision date: 01.01.2024

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Version No.: 9.00

Trade name: Valve Regulated Lead-acid Battery (VRLA Battery)

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WAF: Water Accommodated Fraction

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Carc. 1A: Carcinogenicity – Category 1A

Carc. 1B: Carcinogenicity – Category 1B

Carc. 2: Carcinogenicity – Category 2

Repr. 1A: Reproductive toxicity – Category 1A

Repr. 1A: Reproductive toxicity – Category 1A

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

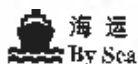
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· * **Data compared to the previous version altered.**

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货物运输条件鉴定书

Certification
for Safe Transport of Chemical Goods

非限制性货物

样品名称： 阀控式密闭铅酸蓄电池 GP12120 12V 12Ah

Sample Name: Valve Regulated Lead-Acid Rechargeable Battery

委托单位： 希世比能源科技(上海)有限公司
CSB Energy Technology (Shanghai) Co., Ltd.

生产单位： 希世比能源科技(越南)有限公司
CSB Energy Technology (Vietnam) Co., Ltd.



SICIT 上海化工院检测有限公司
Shanghai Institute of Chemical Industry Testing Co., Ltd



货物运输条件鉴定书

Certification for Safe Transport of Chemical Goods

NO. 222200517490103

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样品名称 Sample Name	中文 Chinese	阀控式密闭铅酸蓄电池 GP12120 12V 12Ah
	英文 English	Valve Regulated Lead-Acid Rechargeable Battery
委托单位 Consignor	希世比能源科技(上海)有限公司 CSB Energy Technology (Shanghai) Co., Ltd.	
生产单位 Manufacturer	希世比能源科技(越南)有限公司 CSB Energy Technology (Vietnam) Co., Ltd.	
检验方法、程序 Inspection Methods and Procedures	国际海事组织《国际海运危险货物规则》(2020版) IMO International Maritime Dangerous Goods Code (2020 Edition)	
样品外观与气味 Appearance & Odor	黑色塑胶外壳, 无臭 Black Plastic cement shell, Odorless	
IDENTIFICATION 鉴定结论 CONCLUSION	1. 危险性识别 (Hazards identification) 无。 None.	
	2. 海运按照IMO IMDG Code办理的类项 (Suggestion according to IMO IMDG Code) 根据特殊规定238, n, 按非限制性货物条件办理。 The substance is not subject to IMO IMDG Code according to special provision 238.	
	3. 包装类别 (Packing Group) 无。 None.	
	检验日期: 2021-12-29 Inspection Date: 签发日期: 2021-12-29 Issue Date: 生效日期: 2022-01-01 Effective Date:	
备注 Comment	无。 None.	

批准
Approver:

王晨

审核
Checker:

董学胜

主检
Appraiser:

孙清



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序号 NO	检验项目名称 Name of Test Items	标准要求或标准条款号 Standard requirement or The Clause Number of Standard	检测结果 Test Result	本项结论 Conclusion	备注 Remark
1	振动试验 Vibration test	联合国《关于危险货物运输的建议书 规章范本》3.3章 特殊规定238(a) UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(a)	合格。 Passed.	合格。 Passed.	/
2	压差试验 Pressure differential test	联合国《关于危险货物运输的建议书 规章范本》3.3章 特殊规定238(a) UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(a)	合格。 Passed.	合格。 Passed.	/
3	55℃漏液试验 Leakage test at 55℃	联合国《关于危险货物运输的建议书 规章范本》3.3章 特殊规定238(b) UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(b)	合格。 Passed.	合格。 Passed.	/
备注 Comment		电池必须具有适当的防短路措施,若是以电池为动力的装置、设备或车辆还须采取有效的防止意外启动措施。 The battery must be protected appropriately to prevent a short circuits and any battery powered device, equipment or vehicle must be effectively prepared to prevent unintentional activation.			



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报告结束



SHIPMENT OF CSB BRAND VRLA BATTERY [IMDG SPECIAL PROVISION 238]

Ridderkerk, NL

CSB brand VRLA-AGM batteries are identified as "Battery, Electric Storage, Wet, Non-spillable" and can be safely transported on deck, or under deck stored on either a passenger or cargo vessel as results of passing the Vibration and Pressure Differential Tests as described in the IMDG regulations (Special Provision 238).

To transport CSB brand VRLA batteries, the blocks must be shipped in a condition that would protect them from short-circuits and be securely packaged so as to withstand conditions normal to transportation by a consumer, in or out of a device, they are unregulated thus requiring no additional special handling or packaging. Each battery and/or outer package is labeled "NON-SPIILLABLE".

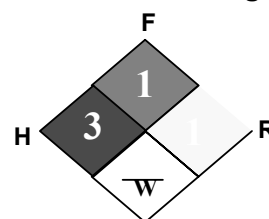
CSB brand VRLA-AGM batteries are NOT classified as "Dangerous Goods" and are safe for transportation.

CSB brand VRLA-AGM BATTERY IMDG SP 238 JUDGMENT CONCLUSION:

Name of Test Items	Standard requirement or The Clause Number of Standard	Result & Conclusion
1. Vibration Test	UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations (18 th) Chapter 3.3 SPECIAL PROVISION 238 (a)	PASS / COMPLY
2. Pressure Differential Test	UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations (18 th) Chapter 3.3 SPECIAL PROVISION 238 (a)	PASS / COMPLY
3. Leakage Test at 55°C	UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations (18 th) Chapter 3.3 SPECIAL PROVISION 238 (b)	PASS / COMPLY

Peter Zhao (Xin Zhao)
Senior Technical Engineer
CSB Energy Technology (EMEA) B.V.

Hazard Rating



VISION BATTERY

VISION Valve Regulated Lead Acid Battery

MATERIAL SAFETY DATA SHEET

SECTION 1 - GENERAL INFORMATION

MANUFACTURER'S NAME: SHENZHEN CENTER POWER TECH CO.LTD	EMERGENCY TELEPHONE NO.: 86-755-84318088
ADDRESS: CENTER POWER INDUSTRIAL PARK TONGFU INDUSTRIAL DISTRICT DAPENG TOWN CHINA	OTHER INFORMATION CALLS: 86-755-84318031
PERSON RESPONSIBLE FOR PREPARATION Shouzhong Yi, Safety, Health & Environmental Affairs Manager	Revised Date: JAN.01, 2024

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

C.A.S.	PRINCIPAL HAZARDOUS COMPONENT(S) (chemical & common name(s))	Hazard Category	% Weight	ACGIH TLV - mg/m ³	OSHA PEL/TWA - mg/m ³
7439-92-1	Lead/Lead Oxide (Litharge)/Lead Sulfate	Acute-Chronic	65-75	0.05 mg/m ³	0.05 mg/m ³
7440-70-2	Calcium (lead calcium alloy)	Reactive	<0.15	Not Established	Not Established
7440-31-5	Tin	Chronic	<1	2	2
7440-38-2	Arsenic (inorganic)	Acute-Chronic	<1	0.01	0.01
7664-93-9	Sulfuric Acid (Battery Electrolyte)	Reactive-Oxidizer Acute -Chronic	15-20	1.0	1.0
9003-56-9	Acrylonitrile Butadiene Styrene or PP	Not applicable	<6	Not Applicable	Not Applicable

Note: PEL's for Individual states may differ from OSHA's PEL's. Check with local authorities for the applicable state PEL's.

OSHA – Occupational Safety and Health Administration; ACGIH – American Conference of Governmental Industrial Hygienists; NIOSH – National Institute for Occupational Safety and Health.

COMMON NAME: (Used on label) Valve Regulated Lead-acid Battery include all Vision AGM, CP, FM, HP&HF,CL, EV, CG, CT,CTA and HFS series
(Trade Name & Synonyms) VRB, VRLA, SLAB, Recombinant lead acid: RG, GPL, AGM, PVX or FD Series, D8565 series

Chemical Family: Toxic and Corrosive Material Mixture

Chemical Formula: Lead/Acid

Name: Battery, Storage, Lead Acid, Valve Regulated

SECTION 3 -- HAZARD IDENTIFICATION

Signs and Symptoms of Exposure	1. Acute Hazards	Do not open battery. Avoid contact with internal components. Internal components include lead and absorbed electrolyte. Electrolyte - Electrolyte is corrosive and contact may cause skin irritation and chemical burns. Electrolyte causes severe irritation and burns of eyes, nose and throat. Ingestion can cause severe burns and vomiting. Lead - Direct skin or eye contact may cause local irritation. Inhalation or ingestion of lead dust or fumes may result in headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia and leg, arm and joint pain.			
	2. Subchronic and Chronic Health Effects	Electrolyte - Repeated contact with electrolyte causes irritation and skin burns. Repeated exposure to mist may cause erosion of teeth, chronic eye irritation and/or chronic inflammation of the nose, throat and lungs. Lead - Prolonged exposure may cause central nervous system damage, gastrointestinal disturbances, anemia, irritability, metallic taste, insomnia, wrist-drop, kidney dysfunction and reproductive system disturbances. Pregnant women should be protected from excessive exposure to prevent lead from crossing the placental barrier and causing infant neurological disorders. California Proposition 65 Warning: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm, and during charging, strong inorganic acid mists containing sulfuric acid are evolved, a chemical Known to the State of California to cause cancer. Wash hands after handling.			
Medical Conditions Generally Aggravated by Exposure	Contact with internal components if battery is broken or opened, then persons with the following medical conditions must take precautions: pulmonary edema, bronchitis, emphysema, dental erosion and tracheobronchitis.				
Routes of Entry	Inhalation - YES Ingestion – YES		Eye Contact- YES		
Chemical(s) Listed as Carcinogen or potential Carcinogen	Proposition 65 - YES		National Toxicology Program - YES		I.A.R.C. Monographs - YES
					O.S.H.A. - NO

SECTION 4 - FIRST AID MEASURES

Emergency and First Aid Procedures	Contact with internal components if battery is opened/broken.
1. Inhalation	Remove to fresh air and provide medical oxygen/CPR if needed. Obtain medical attention.
2. Eyes	Immediately flush with water for at least 15 minutes, hold eyelids open. Obtain medical attention.
3. Skin	Flush contacted area with large amounts of water for at least 15 minutes. Remove contaminated clothing and obtain medical attention if necessary.
4. Ingestion	Do not induce vomiting. If conscious drink large amounts of water/milk. Obtain medical attention. Never give anything by mouth to an unconscious person.

SECTION 5 - FIREFIGHTING MEASURES

Flash Point – Not Applicable	Flammable Limits in Air % by Volume: Not Applicable	Extinguishing Media – Class ABC, CO ₂ , Halon	Auto-Ignition Temperature 675°F (polypropylene)
Special Fire Fighting Procedures	Lead/acid batteries do not burn, or burn with difficulty. Do not use water on fires where molten metal is present. Extinguish fire with agent suitable for surrounding combustible materials. Cool exterior of battery if exposed to fire to prevent rupture. The acid mist and vapors generated by heat or fire are corrosive. Use NIOSH approved self-contained breathing apparatus (SCBA) and full protective equipment operated in positive-pressure mode.		
Unusual Fire and Explosion Hazards	Sulfuric acid vapors are generated upon overcharge and polypropylene case failure. Use adequate ventilation. Avoid open flames/sparks/other sources of ignition near battery.		

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Procedures for Cleanup. Avoid contact with any spilled material. Contain spill, isolate hazard area, and deny entry. Limit site access to emergency responders. Neutralize with sodium bicarbonate, soda ash, lime or other neutralizing agent. Place battery in suitable container for disposal. Dispose of contaminated material in accordance with applicable local, state and federal regulations. Sodium bicarbonate, soda ash, sand, lime or other neutralizing agent should be kept on-site for spill remediation.

Personal Precautions: Acid resistant aprons, boots and protective clothing. ANSI approved safety glasses with side shields/face shield recommended.

Environmental Precautions: Lead and its compounds and sulfuric acid can pose a severe threat to the environment. Contamination of water, soil and air should be prevented.

SECTION 7 - HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage	Store away from reactive materials, open flames and sources of ignition as defined in Section 10 – Stability and Reactivity Data. Store batteries in cool, dry, well-ventilated areas. Batteries should be stored under roof for protection against adverse weather conditions. Avoid damage to containers.
Other Precautions	GOOD PERSONAL HYGIENE AND WORK PRACTICES ARE MANDATORY. Refrain from eating, drinking or smoking in work areas. Thoroughly wash hands, face, neck and arms, before eating, drinking and smoking. Work clothes and equipment should remain in designated lead contaminated areas, and never taken home or laundered with personal clothing. Wash soiled clothing, work clothes and equipment before reuse.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory Protection (Specify Type)	None required under normal conditions. Acid/gas NIOSH approved respirator is required when the PEL is exceeded or employee experiences respiratory irritation.				
Ventilation	Store and handle in dry ventilated area.	Local Exhaust	When PEL is exceeded.	Mechanical (General)	Not Applicable
Protective Gloves	Wear rubber or plastic acid resistant gloves.		Eye Protection	ANSI approved safety glasses with side shields/face shield recommended	
Other Protective Clothing or Equipment	Safety shower and eyewash.				

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: Not Applicable	Vapor Pressure Not Applicable	Specific Gravity 1.250-1.320 pH <2	Melting Point: >320°F (polypropylene)
Percent Volatile By Volume Not Applicable	Vapor Density Hydrogen: 0.069 (Air =1) Electrolyte: 3.4 @ STP (Air = 1)	Evaporation Rate Not applicable	
Solubility 100% soluble (electrolyte) In water	Reactivity in Water Electrolyte – Water Reactive (1)		
Appearance and Odor:	Battery: Co-polymer polypropylene, solid; may be contained within an outer casing of aluminum or steel. Case has metal terminals. Lead: Gray, metallic, solid; brown/grey oxide Electrolyte: Odorless, liquid absorbed in glass mat material. No apparent odor.		

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable	Conditions to Avoid: Avoid overcharging and smoking, or sparks near battery surface. High temperatures-cases decompose at >320°F.
Incompatibility (Materials to Avoid)	Sparks, open flames, keep battery away from strong oxidizers.
Hazardous Decomposition Products	Combustion can produce carbon dioxide and carbon monoxide.
Hazardous Polymerization	Hazardous Polymerization has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

GENERAL: The primary routes of exposure to lead are ingestion or inhalation of dust and fumes.

ACUTE:

INHALATION/INGESTION: Exposure to lead and its compounds may cause headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia, and pain in the legs, arms and joints. Kidney damage, as well as anemia, can occur from acute exposure.

CHRONIC:

INHALATION/INGESTION: Prolonged exposure to lead and its compounds may produce many of the symptoms of short-term exposure and may also cause central nervous system damage, gastrointestinal disturbances, anemia, and wrist drop. Symptoms of central nervous system damage include fatigue, headaches, tremors, hypertension, hallucination, convulsions and delirium. Kidney dysfunction and possible injury has also been associated with chronic lead poisoning. Chronic over-exposure to lead has been implicated as a causative agent for the impairment of male and female reproductive capacity, but there is at present, no substantiation of the implication. Pregnant women should be protected from excessive exposure. Lead can cross the placental barrier and unborn children may suffer neurological damage or developmental problems due to excessive lead exposure in pregnant women.

SECTION 12 - ECOLOGICAL INFORMATION

In most surface water and groundwater, lead forms compounds with anions such as hydroxides, carbonates, sulfates, and phosphates, and precipitates out of the water column. Lead may occur as sorbed ions or surface coatings on sediment mineral particles or may be carried in colloidal particles in surface water. Most lead is strongly retained in soil, resulting in little mobility. Lead may be immobilized by ion exchange with hydrous oxides or clays or by chelation with humic or fulvic acids in the soil. Lead (dissolved phase) is bioaccumulated by plants and animals, both aquatic and terrestrial.

SECTION 13 - DISPOSAL CONSIDERATIONS

Lead-acid batteries are completely recyclable. Return whole scrap batteries to distributor, manufacturer or lead smelter for recycling. For information on returning batteries to VISION Battery for recycling call 86-755-84318595. For neutralized spills, place residue in acid-resistant containers with sorbent material, sand or earth and dispose of in accordance with local, state and federal regulations for acid and lead compounds. Contact local and/or state environmental officials regarding disposal information.

SECTION 14 - TRANSPORT INFORMATION

All Vision AGM, CP, FM, HP&HF, CL, EV, CG, CT, CTA and HFS series are valve regulated lead acid (VRLA) batteries.

Vision's VRLA batteries have passed vibration, pressure differential and free flowing acid tests under CFR 49 173.159(d) and meet IATA Special Provisions A48 and A67. The batteries are securely packaged, protected from short circuits and labeled "Non-Spillable." Vision's VRLA batteries are exempt from DOT Hazardous Material Regulations and IATA Dangerous Goods Regulations.

Note: The shipper has the option of shipping the batteries Hazmat regulated under UN2800. Additional labeling and paperwork would be required. See CFR 49 and IATA Dangerous Goods Regulations for more information.

U.S. DOT PROPER SHIPPING NAME: Batteries, wet, non-spillable
U.S. DOT HAZARD CLASS: 8
U.S. DOT ID NUMBER: UN2800
U.S. DOT PACKING GROUP: III

OR

Excepted from the requirements because batteries have passed the Vibration and Pressure Differential performance tests, and ruptured case test for Nonspillable designation.

U.S. DOT LABEL: CORROSIVE

IMO PROPER SHIPPING NAME: Batteries, wet, non-spillable
IMO U.N. CLASS: 8
IMO U.N. NUMBER: UN 2800
IMO LABEL: CORROSIVE
IMO VESSEL STOWAGE: A

Ems # - F-A, S-B

Lead-acid batteries which meet the requirements of IMDG special provision 238 could be transported by a sea as non-limiting goods

IATA PROPER SHIPPING NAME: Batteries, wet, non-spillable
IATA U.N. CLASS: 8

OR

Excepted from the requirements because batteries have passed the vibration and pressure differential performance tests, and ruptured case test for nonspillable designation. And,

when

IATA U.N. NUMBER: UN 2800
IATA LABEL: CORROSIVE
ERG Code – 8L

packaged for transport, the terminals are protected from short circuit.

Battery met IMDG(39-18) 2018 Edition SP(Special Provision) 238.

SECTION 15 - REGULATORY INFORMATION

U.S. HAZARDOUS UNDER HAZARD COMMUNICATION STANDARD:

LEAD - YES
ARSENIC - YES
SULFURIC ACID - YES

INGREDIENTS LISTED ON TSCA INVENTORY: YES

CERCLA SECTION 304 HAZARDOUS SUBSTANCES:

LEAD - YES
ARSENIC - YES
SULFURIC ACID - YES

RQ: N/A*
RQ: 1 POUND
RQ: 1000 POUNDS

* RQ: REPORTING NOT REQUIRED WHEN DIAMETER OF THE PIECES OF SOLID METAL RELEASED IS EQUAL TO OR EXCEEDS 100 µm (micrometers).

EPCRA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE:

SULFURIC ACID - YES

EPCRA SECTION 313 TOXIC RELEASE INVENTORY:

LEAD - CAS NO: 7439-92-1
ARSENIC - CAS NO: 7440-38-2
SULFURIC ACID - CAS NO: 7664-93-9

SECTION 16 - OTHER INFORMATION

THE INFORMATION ABOVE IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, VISION BATTERY MAKES NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES. ALTHOUGH REASONABLE PRECAUTIONS HAVE BEEN TAKEN IN THE PREPARATION OF THE DATA CONTAINED HEREIN, IT IS OFFERED SOLELY FOR YOUR INFORMATION, CONSIDERATION AND INVESTIGATION. THIS MATERIAL SAFETY DATA SHEET PROVIDES GUIDELINES FOR THE SAFE HANDLING AND USE OF THIS PRODUCT; IT DOES NOT AND CANNOT ADVISE ON ALL POSSIBLE SITUATIONS, THEREFORE, YOUR SPECIFIC USE OF THIS PRODUCT SHOULD BE EVALUATED TO DETERMINE IF ADDITIONAL PRECAUTIONS ARE REQUIRED.

The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export-controlled information.



检测
CNAS L0748



NO. 1214040008

检 验 报 告

Test Report

样品名称： 阀控式密封铅酸蓄电池 CP1232S 12V 3.2AH

Name of Goods: Valve Regulated Lead Acid Battery

委托单位： 深圳市雄韬电源科技股份有限公司

Consignor: /



上海化工研究院检测中心

Shanghai Research Institute of Chemical Industry Testing Centre

上海化工研究院检测中心
检验报告
SRICI Testing Centre Test Report

No. 1214040008

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样品名称 Name of Sample	中文 Chinese	阀控式密封铅酸蓄电池 CP1232S 12V 3.2AH		
	英文 English	Valve Regulated Lead Acid Battery		
样品编号 Sample No.	1214040008			
委托单位 Consignor	深圳市雄韬电源科技股份有限公司 /			
生产单位 Manufacturer	深圳市雄韬电源科技股份有限公司 /			
检验方法 Test Method	联合国 关于危险货物运输的建议书 规章范本 (17th) ST/SG/AC.10/1/Rev.17 3.3章的特殊规定238 UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Regulations (17th)ST/SG/AC.10/1/Rev.17 Chapter 3.3 SPECIAL PROVISIONS 238			
判定标准 Criterion	联合国 关于危险货物运输的建议书 规章范本 (17th) ST/SG/AC.10/1/Rev.17 3.3章的特殊规定238 UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Regulations (17th)ST/SG/AC.10/1/Rev.17 Chapter 3.3 SPECIAL PROVISIONS 238			
样品外观 Appearance	黑色 塑胶外壳 Black Plastics cement shell			
样品接受日期 Accepted Date	2014-04-30		检测起始日期 Test Date	2014-05-04 — 2014-05-07
检测项目 Test Items	振动试验;压差试验;55℃漏液试验 Vibration test,Pressure differential test,Leakage test at 55℃			
检验结论 Conclusion	受检样品通过所有项目检测,检测结果合格。 The sample has passed all of the testing items 生效日期(Date): 2014-05-09			
备注 Remark	无。None.			
委托单位地址 Consignor Address	/		邮政编码 Post Code	518120

批准
Approver:
职务
Title:

张一凡

副总工程师(Vice chief engineer)

审核
Checker:

董学群

编制
Compiler:

夏志

上海化工研究院检测中心 检验报告

SRICI Testing Centre Test Report

No. 1214040008

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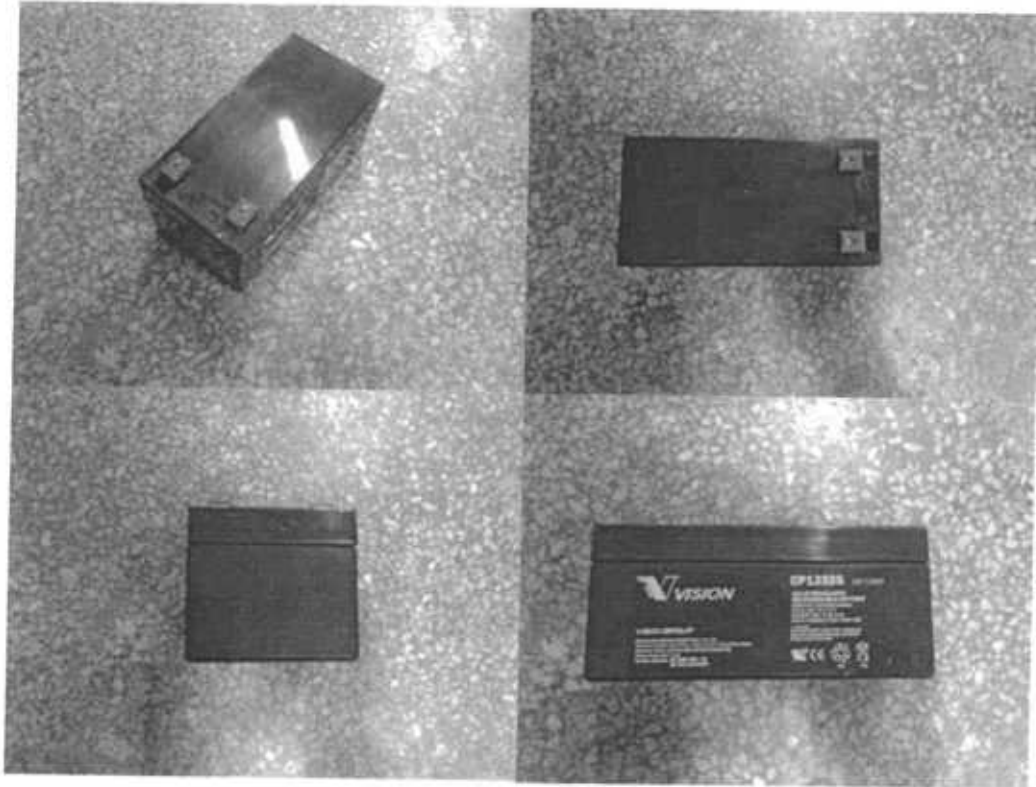
序号 No	检验项目名称 Name of Test Items	标准要求或标准条款号 Standard requirement or The Clause Number of Standard	检测结果 Test Result	本项结论 Conclusion	备注 Remark
1	振动试验 Vibration test	规章范本 (17th) UN2800 的特殊规定 238(a) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(a)	无漏液。 None leakage of battery fluid.	合格。 Passed.	/
2	压差试验 Pressure differential test	规章范本 (17th) UN2800 的特殊规定 238(a) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(a)	无漏液。 None leakage of battery fluid.	合格。 Passed.	/
3	55℃漏液试验 Leakage test at 55℃	规章范本 (17th) UN2800 的特殊规定 238(b) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(b)	无漏液且无可见液体流动。 None leakage of battery fluid and there is no free liquid to flow.	合格。 Passed.	/
4	以下空白 This space intentionally left blank				
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检验环境条件 Test Environment Condition		环境温度:18℃-20℃;环境湿度:/% Ambient temperature:18℃-20℃;Ambient humidity:/%			
分包检验情况 Subcontracted Test Condition		检验项目 Test Item	/		
		分包实验室 Subcontracted Laboratory	名称 Name	邮编 Post Code	/
			地址 Address	电话 Tel	/

上海化工研究院检测中心
检验报告
SRICI Testing Centre Test Report

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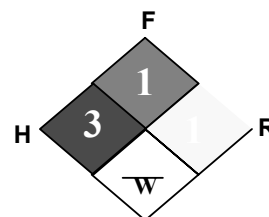
检测

CP1232S**12V 3.2AH**

(11)

中

Hazard Rating



VISION BATTERY

VISION Valve Regulated Lead Acid Battery

MATERIAL SAFETY DATA SHEET

SECTION 1 - GENERAL INFORMATION

MANUFACTURER'S NAME: SHENZHEN CENTER POWER TECH CO.LTD	EMERGENCY TELEPHONE NO.: 86-755-84318088
ADDRESS: CENTER POWER INDUSTRIAL PARK TONGFU INDUSTRIAL DISTRICT DAPENG TOWN CHINA	OTHER INFORMATION CALLS: 86-755-84318031
PERSON RESPONSIBLE FOR PREPARATION Shouzhong Yi, Safety, Health & Environmental Affairs Manager	Revised Date: JAN.01, 2024

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

C.A.S.	PRINCIPAL HAZARDOUS COMPONENT(S) (chemical & common name(s))	Hazard Category	% Weight	ACGIH TLV - mg/m ³	OSHA PEL/TWA - mg/m ³
7439-92-1	Lead/Lead Oxide (Litharge)/Lead Sulfate	Acute-Chronic	65-75	0.05 mg/m ³	0.05 mg/m ³
7440-70-2	Calcium (lead calcium alloy)	Reactive	<0.15	Not Established	Not Established
7440-31-5	Tin	Chronic	<1	2	2
7440-38-2	Arsenic (inorganic)	Acute-Chronic	<1	0.01	0.01
7664-93-9	Sulfuric Acid (Battery Electrolyte)	Reactive-Oxidizer Acute -Chronic	15-20	1.0	1.0
9003-56-9	Acrylonitrile Butadiene Styrene or PP	Not applicable	<6	Not Applicable	Not Applicable

Note: PEL's for Individual states may differ from OSHA's PEL's. Check with local authorities for the applicable state PEL's.

OSHA – Occupational Safety and Health Administration; ACGIH – American Conference of Governmental Industrial Hygienists; NIOSH – National Institute for Occupational Safety and Health.

COMMON NAME: (Used on label) Valve Regulated Lead-acid Battery include all Vision AGM, CP, FM, HP&HF,CL, EV, CG, CT,CTA and HFS series
(Trade Name & Synonyms) VRB, VRLA, SLAB, Recombinant lead acid: RG, GPL, AGM, PVX or FD Series, D8565 series

Chemical Family: Toxic and Corrosive Material Mixture

Chemical

Formula: Lead/Acid

Name: Battery, Storage, Lead Acid, Valve Regulated

SECTION 3 -- HAZARD IDENTIFICATION

Signs and Symptoms of Exposure	1. Acute Hazards	Do not open battery. Avoid contact with internal components. Internal components include lead and absorbed electrolyte. Electrolyte - Electrolyte is corrosive and contact may cause skin irritation and chemical burns. Electrolyte causes severe irritation and burns of eyes, nose and throat. Ingestion can cause severe burns and vomiting. Lead - Direct skin or eye contact may cause local irritation. Inhalation or ingestion of lead dust or fumes may result in headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia and leg, arm and joint pain.			
	2. Subchronic and Chronic Health Effects	Electrolyte - Repeated contact with electrolyte causes irritation and skin burns. Repeated exposure to mist may cause erosion of teeth, chronic eye irritation and/or chronic inflammation of the nose, throat and lungs. Lead - Prolonged exposure may cause central nervous system damage, gastrointestinal disturbances, anemia, irritability, metallic taste, insomnia, wrist-drop, kidney dysfunction and reproductive system disturbances. Pregnant women should be protected from excessive exposure to prevent lead from crossing the placental barrier and causing infant neurological disorders. California Proposition 65 Warning: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm, and during charging, strong inorganic acid mists containing sulfuric acid are evolved, a chemical Known to the State of California to cause cancer. Wash hands after handling.			
Medical Conditions Generally Aggravated by Exposure	Contact with internal components if battery is broken or opened, then persons with the following medical conditions must take precautions: pulmonary edema, bronchitis, emphysema, dental erosion and tracheobronchitis.				
Routes of Entry	Inhalation - YES Ingestion – YES		Eye Contact- YES		
Chemical(s) Listed as Carcinogen or potential Carcinogen	Proposition 65 - YES		National Toxicology Program - YES		I.A.R.C. Monographs - YES O.S.H.A. - NO

SECTION 4 - FIRST AID MEASURES

Emergency and First Aid Procedures	Contact with internal components if battery is opened/broken.
1. Inhalation	Remove to fresh air and provide medical oxygen/CPR if needed. Obtain medical attention.
2. Eyes	Immediately flush with water for at least 15 minutes, hold eyelids open. Obtain medical attention.
3. Skin	Flush contacted area with large amounts of water for at least 15 minutes. Remove contaminated clothing and obtain medical attention if necessary.
4. Ingestion	Do not induce vomiting. If conscious drink large amounts of water/milk. Obtain medical attention. Never give anything by mouth to an unconscious person.

SECTION 5 - FIREFIGHTING MEASURES

Flash Point – Not Applicable	Flammable Limits in Air % by Volume: Not Applicable	Extinguishing Media – Class ABC, CO ₂ , Halon	Auto-Ignition Temperature 675°F (polypropylene)
Special Fire Fighting Procedures	Lead/acid batteries do not burn, or burn with difficulty. Do not use water on fires where molten metal is present. Extinguish fire with agent suitable for surrounding combustible materials. Cool exterior of battery if exposed to fire to prevent rupture. The acid mist and vapors generated by heat or fire are corrosive. Use NIOSH approved self-contained breathing apparatus (SCBA) and full protective equipment operated in positive-pressure mode.		
Unusual Fire and Explosion Hazards	Sulfuric acid vapors are generated upon overcharge and polypropylene case failure. Use adequate ventilation. Avoid open flames/sparks/other sources of ignition near battery.		

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Procedures for Cleanup. Avoid contact with any spilled material. Contain spill, isolate hazard area, and deny entry. Limit site access to emergency responders. Neutralize with sodium bicarbonate, soda ash, lime or other neutralizing agent. Place battery in suitable container for disposal. Dispose of contaminated material in accordance with applicable local, state and federal regulations. Sodium bicarbonate, soda ash, sand, lime or other neutralizing agent should be kept on-site for spill remediation.

Personal Precautions: Acid resistant aprons, boots and protective clothing. ANSI approved safety glasses with side shields/face shield recommended.

Environmental Precautions: Lead and its compounds and sulfuric acid can pose a severe threat to the environment. Contamination of water, soil and air should be prevented.

SECTION 7 - HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage	Store away from reactive materials, open flames and sources of ignition as defined in Section 10 – Stability and Reactivity Data. Store batteries in cool, dry, well-ventilated areas. Batteries should be stored under roof for protection against adverse weather conditions. Avoid damage to containers.
Other Precautions	GOOD PERSONAL HYGIENE AND WORK PRACTICES ARE MANDATORY. Refrain from eating, drinking or smoking in work areas. Thoroughly wash hands, face, neck and arms, before eating, drinking and smoking. Work clothes and equipment should remain in designated lead contaminated areas, and never taken home or laundered with personal clothing. Wash soiled clothing, work clothes and equipment before reuse.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Respiratory Protection (Specify Type)	None required under normal conditions. Acid/gas NIOSH approved respirator is required when the PEL is exceeded or employee experiences respiratory irritation.				
Ventilation	Store and handle in dry ventilated area.	Local Exhaust	When PEL is exceeded.	Mechanical (General)	Not Applicable
Protective Gloves	Wear rubber or plastic acid resistant gloves.		Eye Protection	ANSI approved safety glasses with side shields/face shield recommended	
Other Protective Clothing or Equipment	Safety shower and eyewash.				

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: Not Applicable	Vapor Pressure	Not Applicable	Specific Gravity	1.250-1.320 pH <2	Melting Point: >320°F (polypropylene)
Percent Volatile By Volume	Not Applicable	Vapor Density	Hydrogen: 0.069 (Air = 1) Electrolyte: 3.4 @ STP (Air = 1)	Evaporation Rate	Not applicable
Solubility In water	100% soluble (electrolyte)		Reactivity in Water	Electrolyte – Water Reactive (1)	
Appearance and Odor:	Battery: Co-polymer polypropylene, solid; may be contained within an outer casing of aluminum or steel. Case has metal terminals. Lead: Gray, metallic, solid; brown/grey oxide Electrolyte: Odorless, liquid absorbed in glass mat material. No apparent odor.				

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable	Conditions to Avoid: Avoid overcharging and smoking, or sparks near battery surface. High temperatures-cases decompose at >320°F.
Incompatibility (Materials to Avoid)	Sparks, open flames, keep battery away from strong oxidizers.
Hazardous Decomposition Products	Combustion can produce carbon dioxide and carbon monoxide.
Hazardous Polymerization	Hazardous Polymerization has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

GENERAL: The primary routes of exposure to lead are ingestion or inhalation of dust and fumes.

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INHALATION/INGESTION: Exposure to lead and its compounds may cause headache, nausea, vomiting, abdominal spasms, fatigue, sleep disturbances, weight loss, anemia, and pain in the legs, arms and joints. Kidney damage, as well as anemia, can occur from acute exposure.

CHRONIC:

INHALATION/INGESTION: Prolonged exposure to lead and its compounds may produce many of the symptoms of short-term exposure and may also cause central nervous system damage, gastrointestinal disturbances, anemia, and wrist drop. Symptoms of central nervous system damage include fatigue, headaches, tremors, hypertension, hallucination, convulsions and delirium. Kidney dysfunction and possible injury has also been associated with chronic lead poisoning. Chronic over-exposure to lead has been implicated as a causative agent for the impairment of male and female reproductive capacity, but there is at present, no substantiation of the implication. Pregnant women should be protected from excessive exposure. Lead can cross the placental barrier and unborn children may suffer neurological damage or developmental problems due to excessive lead exposure in pregnant women.

SECTION 12 - ECOLOGICAL INFORMATION

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SECTION 13 - DISPOSAL CONSIDERATIONS

Lead-acid batteries are completely recyclable. Return whole scrap batteries to distributor, manufacturer or lead smelter for recycling. For information on returning batteries to VISION Battery for recycling call 86-755-84318595. For neutralized spills, place residue in acid-resistant containers with sorbent material, sand or earth and dispose of in accordance with local, state and federal regulations for acid and lead compounds. Contact local and/or state environmental officials regarding disposal information.

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Vision's VRLA batteries have passed vibration, pressure differential and free flowing acid tests under CFR 49 173.159(d) and meet IATA Special Provisions A48 and A67. The batteries are securely packaged, protected from short circuits and labeled "Non-Spillable." Vision's VRLA batteries are exempt from DOT Hazardous Material Regulations and IATA Dangerous Goods Regulations.

Note: The shipper has the option of shipping the batteries Hazmat regulated under UN2800. Additional labeling and paperwork would be required. See CFR 49 and IATA Dangerous Goods Regulations for more information.

U.S. DOT PROPER SHIPPING NAME: Batteries, wet, non-spillable

U.S. DOT HAZARD CLASS: 8

U.S. DOT ID NUMBER: UN2800

U.S. DOT PACKING GROUP: III

OR

Excepted from the requirements because batteries have passed the Vibration and Pressure Differential performance tests, and ruptured case test for Nonspillable designation.

U.S. DOT LABEL: CORROSIVE

IMO PROPER SHIPPING NAME: Batteries, wet, non-spillable

IMO U.N. CLASS: 8

IMO U.N. NUMBER: UN 2800

IMO LABEL: CORROSIVE

IMO VESSEL STOWAGE: A

Ems # - F-A, S-B

Lead-acid batteries which meet the requirements of IMDG special provision 238 could be transported by a sea as non-limiting goods

IATA PROPER SHIPPING NAME: Batteries, wet, non-spillable

IATA U.N. CLASS: 8

OR

Excepted from the requirements because batteries have passed the vibration and pressure differential performance tests, and ruptured case test for nonspillable designation. And,

when

IATA U.N. NUMBER: UN 2800

IATA LABEL: CORROSIVE

ERG Code – 8L

packaged for transport, the terminals are protected from short circuit.

Battery met IMDG(39-18) 2018 Edition SP(Special Provision) 238.

SECTION 15 - REGULATORY INFORMATION

U.S. HAZARDOUS UNDER HAZARD COMMUNICATION STANDARD:

LEAD - YES
ARSENIC – YES
SULFURIC ACID – YES

INGREDIENTS LISTED ON TSCA INVENTORY:

YES

CERCLA SECTION 304 HAZARDOUS SUBSTANCES:

LEAD – YES
ARSENIC – YES
SULFURIC ACID – YES

RQ: N/A*
RQ: 1 POUND
RQ: 1000 POUNDS

* RQ: REPORTING NOT REQUIRED WHEN DIAMETER OF THE PIECES OF SOLID METAL RELEASED IS EQUAL TO OR EXCEEDS 100 µm (micrometers).

EPCRA SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE:

SULFURIC ACID – YES

EPCRA SECTION 313 TOXIC RELEASE INVENTORY:

LEAD – CAS NO: 7439-92-1
ARSENIC – CAS NO: 7440-38-2
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The data/information contained herein has been reviewed and approved for general release on the basis that this document contains no export-controlled information.



检测
CNAS L0748



NO. 1214040008

检 验 报 告

Test Report

样品名称： 阀控式密封铅酸蓄电池 CP1232S 12V 3.2AH

Name of Goods: Valve Regulated Lead Acid Battery

委托单位： 深圳市雄韬电源科技股份有限公司

Consignor: /



上海化工研究院检测中心

Shanghai Research Institute of Chemical Industry Testing Centre

上海化工研究院检测中心
检验报告
SRICI Testing Centre Test Report

No. 1214040008

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样品名称 Name of Sample	中文 Chinese	阀控式密封铅酸蓄电池 CP1232S 12V 3.2AH		
	英文 English	Valve Regulated Lead Acid Battery		
样品编号 Sample No.	1214040008			
委托单位 Consignor	深圳市雄韬电源科技股份有限公司 /			
生产单位 Manufacturer	深圳市雄韬电源科技股份有限公司 /			
检验方法 Test Method	联合国 关于危险货物运输的建议书 规章范本 (17th) ST/SG/AC.10/1/Rev.17 3.3章的特殊规定238 UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Regulations (17th)ST/SG/AC.10/1/Rev.17 Chapter 3.3 SPECIAL PROVISIONS 238			
判定标准 Criterion	联合国 关于危险货物运输的建议书 规章范本 (17th) ST/SG/AC.10/1/Rev.17 3.3章的特殊规定238 UNITED NATIONS Recommendations on the TRANSPORT OF DANGEROUS GOODS Regulations (17th)ST/SG/AC.10/1/Rev.17 Chapter 3.3 SPECIAL PROVISIONS 238			
样品外观 Appearance	黑色 塑胶外壳 Black Plastics cement shell			
样品接受日期 Accepted Date	2014-04-30	检测起始日期 Test Date	2014-05-04 — 2014-05-07	
检测项目 Test Items	振动试验;压差试验;55℃漏液试验 Vibration test,Pressure differential test,Leakage test at 55℃			
检验结论 Conclusion	受检样品通过所有项目检测,检测结果合格。 The sample has passed all of the testing items 生效日期(Date): 2014-05-09			
备注 Remark	无。None.			
委托单位地址 Consignor Address	/		邮政编码 Post Code	518120

批准
Approver:
职务
Title:

张一凡

副总工程师(Vice chief engineer)

审核
Checker:

董学群

编制
Compiler:

夏志

上海化工研究院检测中心 检验报告

SRICI Testing Centre Test Report

No. 1214040008

第 2 页 共 3 页

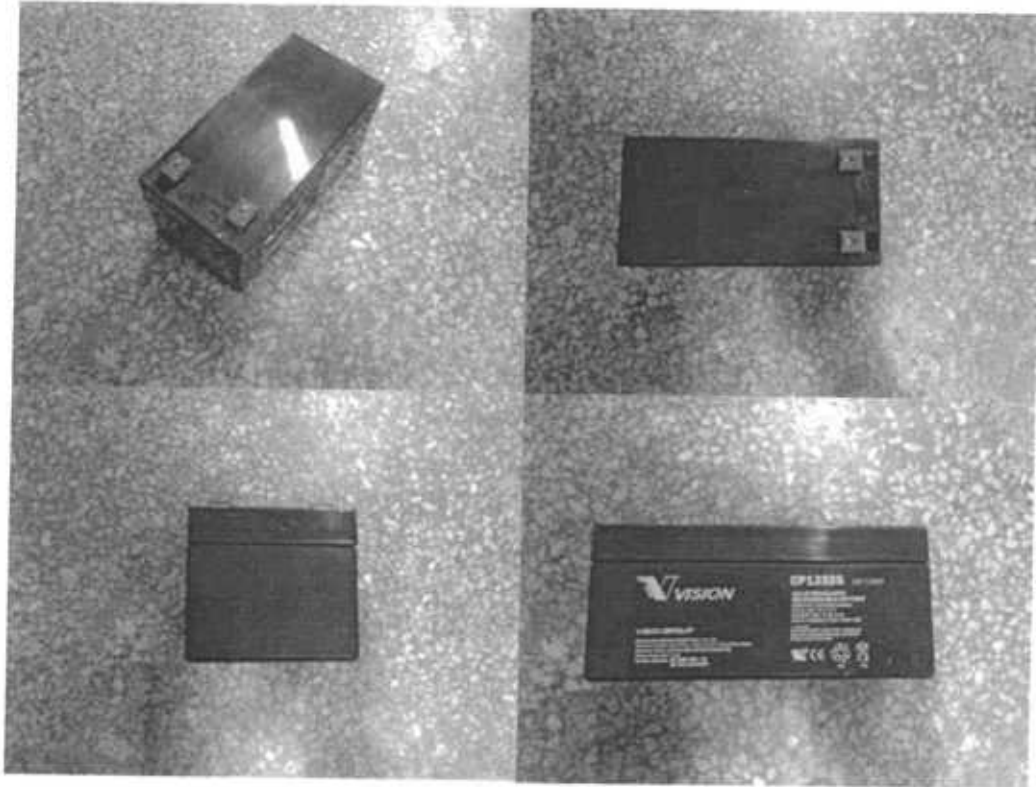
Page 2 of 3

序号 No	检验项目名称 Name of Test Items	标准要求或标准条款号 Standard requirement or The Clause Number of Standard	检测结果 Test Result	本项结论 Conclusion	备注 Remark
1	振动试验 Vibration test	规章范本 (17th) UN2800 的特殊规定 238(a) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(a)	无漏液。 None leakage of battery fluid.	合格。 Passed.	/
2	压差试验 Pressure differential test	规章范本 (17th) UN2800 的特殊规定 238(a) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(a)	无漏液。 None leakage of battery fluid.	合格。 Passed.	/
3	55℃漏液试验 Leakage test at 55℃	规章范本 (17th) UN2800 的特殊规定 238(b) UN Model Regulations Chapter 3.3 SPECIAL PROVISIONS 238(b)	无漏液且无可见液体流动。 None leakage of battery fluid and there is no free liquid to flow.	合格。 Passed.	/
4	以下空白 This space intentionally left blank				
5					
检验环境条件 Test Environment Condition		环境温度:18℃-20℃;环境湿度:/% Ambient temperature:18℃-20℃;Ambient humidity:/%			
分包检验情况 Subcontracted Test Condition		检验项目 Test Item	/		
		分包实验室 Subcontracted Laboratory	名称 Name	邮编 Post Code	/
			地址 Address	电话 Tel	/

上海化工研究院检测中心
检 验 报 告
SRICI Testing Centre Test Report

No. 1214040008

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Page 3 of 3



检测

CP1232S**12V 3.2AH**

(11)

中

This product is used in a hermetically sealed state. So, it is not an object of the SDS system. This document is provided to customers as reference information for the safe handling of the product. The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation. Panasonic Corporation makes no warranty expressed or implied.

PRODUCT SAFETY DATA SHEET

1 Chemical product and company identification

Name of Product : Manganese dioxide lithium battery
 Name of Company : Panasonic Energy Co., Ltd.
 Address : 1-1 Matsushita-cho, Moriguchi-city, Osaka, 570-8511, Japan
 Emergency Contact : +81-80-9932-3190 (JST Working hours)
 +81-6-6991-1141 (Holiday)

2 Hazards identification

GHS Classification : No applicable
 Toxicity : Vapor generated from burning batteries, may irritate eyes, skin and throat.
 Hazard : Electrolyte and lithium metal are inflammable.
 Risk of explosion by fire if batteries are disposed in fire or heated above 100 degrees C.
 Stacking or jumbling batteries may cause external short circuits, heat generation, fire or explosion.

3 Composition/information of ingredients

Component	Material	CAS RN	Content (%)
Positive electrode	Manganese dioxide	1313-13-9	25 - 50
Negative electrode	Lithium metal	7439-93-2	2 - 5
Electrolyte	1,2-dimethoxyethane	110-71-4	3 - 8
	Propylene Carbonate	108-32-7	4 - 17
Others (Steel or Plastic parts)	Steel	7439-89-6, 7440-47-3	25 - 50
	Polypropylene	9003-07-0	3 - 15

Lithium content per cell

Model Number	Lithium content(g)	Model Number	Lithium content(g)	Model Number	Lithium content(g)	Model Number	Lithium content(g)
CR2	0.33	CR123A	0.6	CR-AAK	0.6	CR-AG	0.8
CR2U	0.33	CR-2/3AU	0.6	CR-AAU	0.6	CR-AGZ	0.9
CR2Z	0.33	CR-2/3AZ	0.6			CR-LAS	0.99
						CR-LAZ	0.98

4 First aid measures (in case of electrolyte leakage from the battery)

- Eye contact : Flush the eyes with plenty of clean water for at least 15 minutes immediately, without rubbing. Get immediate medical treatment. If appropriate procedures are not taken, this may cause eye injury.
- Skin contact : Wash the affected area under tepid running water using a mild soap. If appropriate procedures are not taken, this may cause sores on the skin. Get medical attention if irritation develops or persists.
- Inhalation : Remove to fresh air immediately. Get medical treatment immediately.

5 Firefighting measures

- Fire extinguishing agent : Alcohol-resistant foam and dry sand are effective.
- Extinguishing method : Be sure on the windward to extinguish the fire, since vapor may make eyes, nose and throat irritate, Wear the respiratory protection equipment in some cases.

6 Accidental release measures (in case of electrolyte leakage from the battery)

- Take up with absorbent cloth, treat cloth as inflammable.
- Move the battery away from the fire.

7 Handling and storage

- Handling :
- When packing the batteries, do not allow battery terminals to contact each other, or contact with other metals. Be sure to pack batteries by providing partitions in the packaging box, or in a separate plastic bag so that the single batteries are not mixed together.
 - Use strong material for packaging boxes so that they will not be damaged by vibration, impact, dropping and stacking during their transportation.
 - Do not short-circuit, recharge, deform, throw into fire or disassemble.
 - Do not mix different type of batteries.
 - Do not solder directly onto batteries.
 - Insert the battery correctly in electrical equipment.
- Storage :
- Do not let water penetrate into packaging boxes during their storage and transportation.
 - Do not store the battery in places of the high temperature or under direct sunlight.
 - Please also avoid the places of high humidity. Be sure not to expose the battery to condensation, rain or frozen condition

8. Exposure controls and personal protection

Acceptable concentration : Not specified about Lithium Battery.
Facilities : Nothing in particular.

Protective Equipment (in case of electrolyte leakage from the battery)

Respiratory Protection : For most condition no respiratory protection.
Hand Protection : Safety gloves.
Eye Protection : Safety goggle

9. Physical and chemical properties

Appearance : Cylindrical shape
Nominal Voltage : 3 V

10. Stability and reactivity

Since batteries utilize a chemical reaction they are actually considered a chemical product.

As such, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, the various usage conditions such as discharge, ambient temperature, etc. are not maintained within the specified ranges the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage.

11. Toxicological information

Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.

12. Ecological information

In case of the worn out battery was disposed in land, the battery case may be corroded, and leak electrolyte. However, there is no environmental impact information.

Mercury (Hg), Cadmium (Cd) and Lead (Pb) are not used in cell.

13. Disposal considerations

When the battery is worn out, dispose of it under the ordinance of each local government.

14. Transport information**Handling**

During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to condensation.

During the transportation do not allow packages to be dropped or damaged.

Proper shipping name : Lithium metal batteries

UN Number, UN Class : UN3090, Class9 (for the Air transport by PI968 Section IA or IB)
: Exemption (for the Marine transport SP188 and the Air transport by Section II of PI 969 or 970)
Even though the cells are classified as lithium metal batteries (UN3090 or UN3091), they are not subject to some requirements of Dangerous Goods Regulations because they meet the following:
1. for cells, the lithium content is not more than 1 g ;

2. each cell is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3 ;
3. each cell is manufactured in ISO9001 certified factory ;
4. the test summary is available from ;

<https://energy.panasonic.com/global/business/e/na/downloads/test-summary>

Please refer to the following reference information about concrete ways of transportation. Actual content of packaging label and shipping documents varies by shipping companies. Make sure to confirm in advance with your shipping company.

Information of reference

	Reference	Packing Instruction(PI)/ Special provision(SP)	Note
Air transport	IATA DGR	PI 968 Section I A	Cells, Cargo Aircraft only; Net quantity per package Max. 35kg
		PI 968 Section I B	Cells, Cargo Aircraft only; net quantity per package Max. 2.5kg
		PI 969 Section II	Cells packed with equipment
		PI 970 Section II	Cells contained in equipment
Marine transport	IMDG Code	SP 188	

15. Regulatory information

- IATA Dangerous Goods Regulations Edition 66 (IATA DGR)
- IMO International Maritime Dangerous Goods Code 2022 and 2024 Edition (IMDG Code)
- UN Recommendations on the Transportation of Dangerous Goods, Model Regulations
- UN Recommendations on the Transportation of Dangerous Goods, Manual of Tests and Criteria
- EU Battery Directive (2006/66/EC, 2013/56/EU)
- EU Battery Regulation (Regulation (EU) 2023/1542 of the European Parliament and of the Council)
- EU REACH Regulation (Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals)
- State of California Regulations - Best management practices for Perchlorate Materials
- Act on Preventing Environmental Pollution of Mercury (Japan)

16. Other information

This PSDS is provided to customers as reference information in order to handle batteries safely.

It is necessary for the customer to take appropriate measures depending on the actual situation such as the individual handling, based on this information.

Prepared by : Engineering Department
Energy Device Business Division
Panasonic Energy Co., Ltd.

Lithium Battery Test Summary / UN38.3 試験結果要約**Product manufacturer**

Address/住所

Telephone/電話番号

e-mail

URL

Panasonic Corporation

1-1 Matsushita-cho, Moriguchi City, Osaka 570-8511, Japan

+81-6-6994-4560

un38.3_microbattery@ml.jp.panasonic.com

https://www.panasonic.com/global/home.html

Test laboratory

Address/住所

Telephone/電話番号

e-mail

URL

Panasonic Corporation

1-1 Matsushita-cho, Moriguchi City, Osaka 570-8511, Japan

+81-6-6994-4560

un38.3_microbattery@ml.jp.panasonic.com

https://www.panasonic.com/global/home.html

Description of Product / 製品情報

Model Number/品番

Type/タイプ

Physical description/物理特性

Mass/質量

Lithium content/リチウム含有量

Watt-hour rating/ワット時定格値

Nominal Voltage/公称電圧

Nominal Capacity/公称容量

CR123A

Lithium metal cell

Non-rechargeable, Cylindrical

17 g

0.6 g

Not applicable

3.0 V

1400 mAh

Test Results / 結果

Identification number/番号

Date of test report/レポート発行日

Reference edition/参照

CP0015-12

2013/09/26

UN Manual of Tests and Criteria 4th Amend.1 and 5th Amend.1 edition

UN Manual of Tests and Criteria 国連勧告テスト判定基準	Results 結果	Remarks 備考
T1 : Altitude simulation / 高度シミュレーション	Pass / 合格	
T2 : Thermal Test / 温度試験	Pass / 合格	
T3 : Vibration / 振動	Pass / 合格	
T4 : Shock / 衝撃	Pass / 合格	
T5 : External short circuit / 外部短絡	Pass / 合格	
T6 : Impact / 衝突、Crush / 圧壊	Pass / 合格	Impact / 衝突
T7 : Overcharge / 過充電	-	for rechargeable batteries only / 充電式電池のみ
T8 : Forced discharge / 強制放電	Pass / 合格	

Hereby we certify that this model of Lithium battery meets the requirements of each test in the UN Manual of Tests and Criteria Part III, sub-section 38.3.

上記テストは国連勧告テスト(Manual of Tests and Criteria, Part III, sub-section 38.3.)に従い確認された結果であることを証明致します。

Signature:



Name and Title: Kazuyuki Amano / Manager

Energy Device Business Division

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PRODUCT SAFETY DATA SHEET

1 Chemical product and company identification

Name of Product : Nickel-Metal Hydride Battery
 Name of Company : Panasonic Energy Co., Ltd.
 Address : 1-1 Matsushita-cho, Moriguchi-city, Osaka, 570-8511, Japan
 Emergency Contact : +81-80-9932-3190 (JST Working hours)
 +81-6-6991-1141 (Holiday)

2 Hazards identification

GHS Classification : No applicable
 Toxicity : When the leaked liquid adheres to the skin, it may cause the damage of the skin. When it is gotten in eye, it may cause the damage of eye such as losing sight.
 Hazard : There is the risk of explosion if batteries are disposed in fire, heated above 100 degree C. Stacking or jumbling batteries may cause external short circuits, heat generation and explosion.

3 Composition/information of ingredients

Material	CAS RN	Content (%)
Nickel Hydroxide	12054-48-7	15-30
Cobalt Hydroxide	21041-93-0	
Hydrogen absorbing alloy	7440-02-0(Ni) 7440-48-4(Co) 7439-96-5(Mn) 7429-90-5(Al)	20-40
Nickel	7440-02-0	
Iron	7439-89-6	
Potassium Hydroxide	1310-58-3	
Sodium Hydroxide	1310-73-2	0-15
Lithium Hydroxide	1310-65-2	

4 First aid measures (in case of electrolyte leakage from the battery)

Eye contact by electrolyte : Do not rub eyes. Wash immediately with large amount of clean water such as tap water 15 minutes or more then receive the ophthalmologist's treatment promptly. It may cause such as losing sight when the right procedure is not taken.
 Skin contact by electrolyte : Wash the affected area under tepid running water using a mild soap. If appropriate procedures are not taken, this may cause sores on the skin. Get medical attention if irritation develops or persists.

- Ingestion of electrolyte : Wash in the mouth immediately with large amount of clean water and make the sufferer drink a lot of water.
Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.
- Inhalation of electrolyte fume : Remove to fresh air immediately. Take a medical treatment

5 Firefighting measures

Extinguishing Media

Dry sand, chemical powder fire extinguisher.

Specific Fire-Fighting Methods

Be sure on the windward to extinguish the fire, since vapor may make eyes, nose and throat irritate, Wear the respiratory protection equipment in some cases.

6 Accidental release measures (in case of electrolyte leakage from the battery)

Health Considerations and Protective Equipment

Wear proper protective equipment.

Environmental Precautions

Prevent spills form entering sewers, watercourses.

Spill Clean-Up Procedures

Collect material to minimize dust generation ; use wet mop, damp sponge. Place collected material into a suitable container for disposal.

7 Handling and storage

Handling

When packing the batteries, do not allow battery terminals to contact each other, or contact with other metals. Be sure to pack batteries by providing partitions in the packaging box, or in a separate plastic bag so that the single batteries are not mixed together.

Use strong material for packaging boxes so that they will not be damaged by vibration, impact, dropping and stacking during their transportation.

Do not short-circuit, deform, throw into fire or disassemble.

Use only dedicated charger or charge according to the conditions specified.

Do not mix different type of batteries.

Do not solder directly onto batteries.

Insert the battery correctly in electrical equipment.

Storage

Do not let water penetrate into packaging boxes during their storage and transportation.

Do not store the battery in places of the high temperature or under direct sunlight.

Please also avoid the places of high humidity. Be sure not to expose the battery to condensation, rain or frozen condition

8. Exposure controls and personal protection

Acceptable concentration : Not specified about Nickel-Metal Hydride Battery.

Facilities : Nothing in particular.

Protective Equipment (in case of electrolyte leakage from the battery)

Respiratory Protection : For most condition no respiratory protection.

Hand Protection : Safety gloves.

Eye Protection : Safety glasses must be worn when handling this product.

Skin and Body Protection : To prevent any contact, wear impervious clothing such as boots or whole body suits as appropriate.

9. Physical and chemical properties

- Appearance : Nickel-Metal hydride battery is stored in the plastic resin case or tube.
- Nominal Voltage : The voltage value depends on the number of built-in batteries used in battery pack.

10. Stability and reactivity

Since batteries utilize a chemical reaction they are actually considered a chemical product.

As such, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, the various usage conditions such as discharge, ambient temperature, etc. are not maintained within the specified ranges the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage.

11. Toxicological information

Battery is not harmful as its ingredients are in a hermetically sealed state.

12. Ecological information

In case of the worn out battery was disposed in land, the battery case may be corroded, and leak electrolyte. However, there is no environmental impact information.

Mercury (Hg), Cadmium (Cd) and Lead (Pb) are not used in cell.

13. Disposal considerations

When the battery is worn out, dispose of it under the ordinance of each local government.

14. Transport information**Handling**

- During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to dew condensation.
- Avoid transportation with the possibility of the collapse of cargo piles and the packing damage.

Air Transport

Non-Dangerous Goods. For air transportation, the words "Not Restricted, as per Special Provision A199" must be included in the description of the substance on the Air Waybill, when an Air Waybill is issued.

Marine Transport

UN number: UN3496 see SP963

1. Nickel-metal hydride cells or batteries packed with or contained in equipment and nickel-metal hydride button cells are Non-Dangerous Goods.
2. All other nickel-metal hydride cells or batteries shall be securely packed and protected from short circuit. They are Non-Dangerous Goods provided they are loaded in a cargo transport unit in a total quantity of less than 100kg gross mass.
3. When loaded in cargo transport unit in a total quantity of 100kg gross mass or more, they are Dangerous Goods (Class 9)

15. Regulatory information

EU Battery Directive (2006/66/EC, 2013/56/EU)

EU Battery Regulation (Regulation (EU) 2023/1542 of the European Parliament and of the Council)

EU REACH Regulation (Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals)

Act on Preventing Environmental Pollution of Mercury (Japan)

16. Other information

This PSDS is provided to customers as reference information in order to handle batteries safely. It is necessary for the customer to take appropriate measures depending on the actual situation such as the individual handling, based on this information.

References

IATA Dangerous Goods Regulations Edition 66 (IATA DGR)

IMO International Maritime Dangerous Goods Code 2022 and 2024 Edition (IMDG Code)

Prepared by: Engineering Department
Energy Device Business Division
Panasonic Energy Co., Ltd.

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PRODUCT SAFETY DATA SHEET

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Name of Product : Nickel-Metal Hydride Battery
 Name of Company : Panasonic Energy Co., Ltd.
 Address : 1-1 Matsushita-cho, Moriguchi-city, Osaka, 570-8511, Japan
 Emergency Contact : +81-80-9932-3190 (JST Working hours)
 +81-6-6991-1141 (Holiday)

2 Hazards identification

GHS Classification : No applicable
 Toxicity : When the leaked liquid adheres to the skin, it may cause the damage of the skin. When it is gotten in eye, it may cause the damage of eye such as losing sight.
 Hazard : There is the risk of explosion if batteries are disposed in fire, heated above 100 degree C. Stacking or jumbling batteries may cause external short circuits, heat generation and explosion.

3 Composition/information of ingredients

Material	CAS RN	Content (%)
Nickel Hydroxide	12054-48-7	15-30
Cobalt Hydroxide	21041-93-0	
Hydrogen absorbing alloy	7440-02-0(Ni) 7440-48-4(Co) 7439-96-5(Mn) 7429-90-5(Al)	20-40
Nickel	7440-02-0	
Iron	7439-89-6	
Potassium Hydroxide	1310-58-3	
Sodium Hydroxide	1310-73-2	0-15
Lithium Hydroxide	1310-65-2	

4 First aid measures (in case of electrolyte leakage from the battery)

Eye contact by electrolyte : Do not rub eyes. Wash immediately with large amount of clean water such as tap water 15 minutes or more then receive the ophthalmologist's treatment promptly. It may cause such as losing sight when the right procedure is not taken.
 Skin contact by electrolyte : Wash the affected area under tepid running water using a mild soap. If appropriate procedures are not taken, this may cause sores on the skin. Get medical attention if irritation develops or persists.

- Ingestion of electrolyte : Wash in the mouth immediately with large amount of clean water and make the sufferer drink a lot of water.
Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible.
- Inhalation of electrolyte fume : Remove to fresh air immediately. Take a medical treatment

5 Firefighting measures

Extinguishing Media

Dry sand, chemical powder fire extinguisher.

Specific Fire-Fighting Methods

Be sure on the windward to extinguish the fire, since vapor may make eyes, nose and throat irritate, Wear the respiratory protection equipment in some cases.

6 Accidental release measures (in case of electrolyte leakage from the battery)

Health Considerations and Protective Equipment

Wear proper protective equipment.

Environmental Precautions

Prevent spills form entering sewers, watercourses.

Spill Clean-Up Procedures

Collect material to minimize dust generation ; use wet mop, damp sponge. Place collected material into a suitable container for disposal.

7 Handling and storage

Handling

When packing the batteries, do not allow battery terminals to contact each other, or contact with other metals. Be sure to pack batteries by providing partitions in the packaging box, or in a separate plastic bag so that the single batteries are not mixed together.

Use strong material for packaging boxes so that they will not be damaged by vibration, impact, dropping and stacking during their transportation.

Do not short-circuit, deform, throw into fire or disassemble.

Use only dedicated charger or charge according to the conditions specified.

Do not mix different type of batteries.

Do not solder directly onto batteries.

Insert the battery correctly in electrical equipment.

Storage

Do not let water penetrate into packaging boxes during their storage and transportation.

Do not store the battery in places of the high temperature or under direct sunlight.

Please also avoid the places of high humidity. Be sure not to expose the battery to condensation, rain or frozen condition

8. Exposure controls and personal protection

Acceptable concentration : Not specified about Nickel-Metal Hydride Battery.

Facilities : Nothing in particular.

Protective Equipment (in case of electrolyte leakage from the battery)

Respiratory Protection : For most condition no respiratory protection.

Hand Protection : Safety gloves.

Eye Protection : Safety glasses must be worn when handling this product.

Skin and Body Protection : To prevent any contact, wear impervious clothing such as boots or whole body suits as appropriate.

9. Physical and chemical properties

- Appearance : Nickel-Metal hydride battery is stored in the plastic resin case or tube.
- Nominal Voltage : The voltage value depends on the number of built-in batteries used in battery pack.

10. Stability and reactivity

Since batteries utilize a chemical reaction they are actually considered a chemical product.

As such, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, the various usage conditions such as discharge, ambient temperature, etc. are not maintained within the specified ranges the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage.

11. Toxicological information

Battery is not harmful as its ingredients are in a hermetically sealed state.

12. Ecological information

In case of the worn out battery was disposed in land, the battery case may be corroded, and leak electrolyte. However, there is no environmental impact information.

Mercury (Hg), Cadmium (Cd) and Lead (Pb) are not used in cell.

13. Disposal considerations

When the battery is worn out, dispose of it under the ordinance of each local government.

14. Transport information**Handling**

- During the transportation of a large amount of batteries by ship, trailer or railway, do not leave them in the places of high temperatures and do not allow them to be exposed to dew condensation.
- Avoid transportation with the possibility of the collapse of cargo piles and the packing damage.

Air Transport

Non-Dangerous Goods. For air transportation, the words "Not Restricted, as per Special Provision A199" must be included in the description of the substance on the Air Waybill, when an Air Waybill is issued.

Marine Transport

UN number: UN3496 see SP963

1. Nickel-metal hydride cells or batteries packed with or contained in equipment and nickel-metal hydride button cells are Non-Dangerous Goods.
2. All other nickel-metal hydride cells or batteries shall be securely packed and protected from short circuit. They are Non-Dangerous Goods provided they are loaded in a cargo transport unit in a total quantity of less than 100kg gross mass.
3. When loaded in cargo transport unit in a total quantity of 100kg gross mass or more, they are Dangerous Goods (Class 9)

15. Regulatory information

EU Battery Directive (2006/66/EC, 2013/56/EU)

EU Battery Regulation (Regulation (EU) 2023/1542 of the European Parliament and of the Council)

EU REACH Regulation (Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals)

Act on Preventing Environmental Pollution of Mercury (Japan)

16. Other information

This PSDS is provided to customers as reference information in order to handle batteries safely. It is necessary for the customer to take appropriate measures depending on the actual situation such as the individual handling, based on this information.

References

IATA Dangerous Goods Regulations Edition 66 (IATA DGR)

IMO International Maritime Dangerous Goods Code 2022 and 2024 Edition (IMDG Code)

Prepared by: Engineering Department
Energy Device Business Division
Panasonic Energy Co., Ltd.



UN38.3 Test Summary Report

Lithium cell or battery test summary in accordance with section 2.9.4 UN Model Regulations and sub-section 38.3 of Manual of Tests and Criteria, Part III, subsection 38.3.5

- [a] ☐ Cell ☒ Battery ☐ Produkt
☒ **Tested Type Part #:**
 PA-LEP1270.R001
☐ **Same Type Part #:** as listed below

- [d] Unique report ID:
 UN.PB.PA-LEP1270.R001, UN38.3, Rev.6.1
 [e] Date of test report:
 2020-09-08

- [b] **Manufacturer**
 Fey Elektronik GmbH
 Storchweg 3
 21217 Seevetal
 Germany
 T. +49 40 703 8888-0
info@feyelektronik.de
www.feyelektronik.de

- [c] **Test Laboratory**
 Fey Elektronik GmbH
 Storchweg 3
 21217 Seevetal
 Germany
 T. +49 40 703 8888-0
info@feyelektronik.de
www.feyelektronik.de

- ☒ Same Type Part Numbers # (all): PA-LEP1270.R002

- [f] (i) ☒ Lithium-ion ☐ Lithium-metal ☐ Cell ☒ Battery
 [f] (ii) Mass: approx. 1060 g
 [f] (iii) ☒ Watt-hour rating: 97.28 Wh or ☐ Lithium content: g
 [f] (v) Model number(s): PA-LEP1270.R001
 [f] (iv) Physical description: Secondary (rechargeable) Hardcase-Pack with eight cells in a four serial, two parallel configuration and protective device.
 Nominal voltage: 12.8V, Nominal capacity: 7.6Ah typical
 Used and UN38.3-tested cell type: Shandong Goldencell, HTCFR26650-3800mAh-3.2V
 Our batteries/products are manufactured according to a Quality-Management-System.
 For further information visit our website.

[g] List of Tests Conducted	Result (Pass / Fail / N.A.)	Remark
38.3.4.1 Test T.1: Altitude simulation	Pass	
38.3.4.2 Test T.2: Thermal test	Pass	
38.3.4.3 Test T.3: Vibration	Pass	
38.3.4.4 Test T.4: Shock	Pass	
38.3.4.5 Test T.5: External short circuit	Pass	
38.3.4.6 Test T.6: Impact/Crush	N.A.	for cell testing only
38.3.4.7 Test T.7: Overcharge	Pass	
38.3.4.8 Test T.8: Forced discharge	N.A.	for cell testing only
[h] Battery assembly: ☒ Not Applicable. ☐ UN38.3.3 (f) ☐ UN38.3.3 (g)		
[i] Test Reference: UN Manual of Tests and Criteria, Part III, sub-section 38.3, ST/SG/AC.10/11/Rev.6/Amend. 1		

Important! The stated signatory affirms, that this document is a true and correct summary of the original individual tests and test data. The original test data is confidential information available to competent State Authorities with valid identification and only upon their formal request. Disclosure of the original test data to any other entity upon its request will be considered by Fey Elektronik and, should Fey Elektronik consider this request is with merit, may be subject to the prior execution of a nondisclosure agreement.



[j] Signatory Date: 2021-04-21
 Name: Michael Witte
 Title: General Manager
 Signature:

Fey Elektronik GmbH, Storchweg 3, 21217 Seevetal, Germany
 Tel.: +49 40 703 8888-0
www.feyelektronik.de

FEY Elektronik GmbH

Storchenweg 3

D-21217 Seevetal

Germany

Tel. +49 40 703 88 88 -0

Fax +49 40 703 88 88 -55



Issue date : 2025-02-22

Information Sheet for Batteries

According to REACH regulation EC 1907/2006, Art. 3, Point 3 and to OSHA regulation 29 CFR 1910.1200, batteries are ARTICLES with no intended release. As such they are not covered by REACH regulation Art. 31, Paragraph (1) to generate and supply an SDS or and MSDS.

This Battery Information Sheet is provided as an informational document for the purpose of assisting our customers.

1. Product and Company Identification**1.1 Product Identification**

Product name: Li-ion battery pack (or, Li-ion secondary/rechargeable battery)

Model: All Lithium Ion rechargeable batteries, consisting of cylindrical or prismatic single cells or multi cell battery packs. Battery packs provided with shrink tube enclosure or hardcase housing.

1.2 Usage

All information and instructions concerning usage, handling and maintenance provided in the documentation must be followed.

1.3 Manufacturer's name/ Representative

FEY Elektronik GmbH -> see above

1.4 Emergency No

Phone: +49(0) 160-440-2542

2. Composition/Information of ingredients**2.1 Chemical characteristics**

The Li-ion rechargeable battery pack is mounted inside a plastic enclosure or shrink tube. It consists of rechargeable Li-ion batteries and electronic components mounted on FR4 material PWB.

2.2 Dangerous ingredients

Ingredients : Lithium-Ion battery

CAS Number : Not specified

Composition & Information on Ingredients

Component : Lithium Ion rechargeable battery cell			
Material name	CAS No.	EC#	Weight %
Ferrous Phosphate Lithium	15365-14-7	476-700-9	32.32
Super-p	---	---	0.17
Rubber Styrene-butadiene, fume	61789-96-6	612-382-1	0.30
Polyvinylidene fluoride resin	24937-79-9	607-458-6	1.05
Carbon black	1333-86-4	215-609-9	16.19
Phosphate(1-), hexafluoro-, lithium	21324-40-3	244-334-7	13.64
Copper	7440-50-8	231-159-6	8.50
Aluminium	7429-90-5	231-072-3	4.40
Iron	7439-89-6	231-096-4	15.61

Component : Battery pack Enclosure, Wiring, Connector		
Part	Material name	Weight %
Shrink Tube	PVC, PET ^{*1}	< 2 of battery
Housing of battery pack	Polyamide ^{*1} , Polycarbonate ^{*1} , ABS ^{*1} or a blend of these	0 to 20 (wt %)
Glue or potting	Silicone ^{*1} , MS Polymer ^{*1} , Epoxy 2k resin ^{*1}	> 2 (wt %)

*1 Not all products contains these materials.

*2 The letter M means transition metal and candidates of M are Co, Mn, Ni and Al. One compound includes one or more of these metals and one product includes one or more of the compounds.
The letter m and n means the number of atoms.

3. Hazard identification (Most important hazards)

Lithium transition metal Oxide

H302 Harmful if swallowed

H317 May cause sensitisation by skin contact

LiPF₆

H261 In contact with water releases flammable gas

H312 Harmful in contact with skin

H302 Harmful if swallowed.

H318 Risk of serious damage to eyes.

EUH014 Reacts violently with water.

Electrolyte

H302 Harmful if swallowed

H225 Highly flammable liquid and vapour

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H317 May cause sensitization by skin contact

Signs : Harmful



Health Hazard



Corrosive



Flammable



H-Phrases:

H225	Highly flammable liquid and vapour.
EUH014	Reacts violently with water.
H261	In contact with water releases flammable gas.
H312	Harmful in contact with skin.
H301	Harmful if swallowed.
H318	Causes serious eye damage.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

P-Statements:

P402	Store in a dry place.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fumes/gas/mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P305	IF IN EYES:
+P351	Rinse cautiously with water for several minutes.
+P338	Remove contact lenses if present and easy to do. Continue rinsing.
+P313	Get medical advice/attention.
P280	Wear suitable protective clothing
P314	Get Medical advice/attention if you feel unwell.
P273	Avoid release to environment.

4. First aid measures

Spilled internal battery materials

4.1 Inhalation:

Move victim to fresh air. – If necessary, restore normal breathing through standard first aid measures. Always seek medical attention.

4.2 Skin:

Remove contaminated clothing. Flush skin immediately with plenty of soap and water. If symptoms develop seek medical attention.

4.3 Eye:

Flush eyes with plenty of water for a minimum of 15 minutes occasionally lifting the upper and lower eyelids. Cleaning the eyes without rinsing with water can cause additional eye damage. Always seek medical attention.

4.4 Ingestion:

Do not induce vomiting. If conscious, wash mouth out with water using several glasses of water. Never give anything by mouth to an unconscious person.

Further treatment: All cases of eye contamination, persistent skin irritation and casualties who have swallowed this substance or been affected by breathing its vapours should be seen by a Doctor.

5. Fire-Fighting Measures

5.1 Extinguishing Media:

Carbon dioxide (CO²) and large volumes of water for cooling.

5.2 Special exposure hazards and unsuitable extinguishing methods:

Chemical fumes will be released during fire.

Do not use fire extinguishing blankets, sand or graphite powder to extinguish fire.

6. Accidental Release Measures

6.1 Personal Precautions

In case fumes are released, evacuate the affected area. When entering an area where fumes have been released, wear appropriate personal protective equipment and respiration protection. In case the electrolyte comes in contact with skin, flush skin immediately with plenty of water.

6.2 Environmental Precautions

Do not allow contamination of sewage, soil, groundwater, drainage system or bodies of water by electrolyte or other accidental released material.

6.3 Method's for cleaning up

Bind released electrolyte with sand. Put the damaged battery and the contaminated sand into a plastic bag. Dispose of this material in accordance with local laws and regulations.

7. **Handling and Storage**

7.1 Handling

Restrictions for safe handling:

Do not puncture or break the battery pack. Never short circuit the battery contacts. Do not touch the battery contacts with conductive material (for example metals). Do not expose the battery to heat or direct sunlight. Do not expose the battery to water or a high humidity environment. Do not incinerate the battery. Do not use the battery beyond its lifetime. Do not use the battery if it was exposed to a deep discharge or any other unexpected behaviour. Handle the batteries one by one, store and transport the batteries by themselves; do not expose them to other batteries.

7.2 Storage

Store batteries in cool, dry environment (optimal conditions are above 5°C and below 30°C). Store in a dust free environment, away from ignition sources and strong oxidizers. Keep away from heat sources or open flames. Do not store the battery near any kind of food. Store only in ventilated areas. Continuous storage at temperatures above 70°C may cause leakage and electrolyte release from the battery.

Short circuit may cause fire; release of electrolyte or leakage of the battery can cause personal harm. Store the batteries in the original packing only and ensure batteries are not jumbled. Strictly follow all recommendations in the manual especially those for usage, max. charge / discharge currents, max. charge voltage and min. and max. usage temperatures.

Applying mechanical force may lead to deformation and damage of the battery. There is the risk of fire and serious damage to eyes, skin, and lungs.

8. **Exposure Controls/Personal Protection**

8.1 Exposure limit values

Lithium transition metal Oxide	: 0,1mg/m ³
Elektrolyte	: N/A
LiPF ₆	: N/A

8.2 Personal protective Equipment (PPE)

Respiratory

Approved respirators should be used when fire or electrolyte leakage occur

Hand Protection

Wear gloves in case of electrolyte leakage

Eye Protection

Wear protective glasses when handling this product

Skin and Body Protection

Wear clothing that totally covers the skin and body in case of electrolyte leakage of the battery.



9. **Physical and Chemical Properties**

Appearance : Plastic housing or shrink tube enclosure
 Colour : multiple
 Odor : odorless
 PH-value : not applicable
 Boiling point : not applicable
 Flashpoint point : not applicable

10. **Stability and Reactivity**

Stability:

The product is stable under the conditions named in point 7.

Conditions to avoid:

Heating above 70°C, damage, mechanical deformation, shock, pressure, penetration, disassembly, short circuit, high humidity, rain or salt water.

Hazardous decomposition products:

carbon monoxide CO
 carbon dioxide CO²

11. **Toxicological Information**

Acute toxicity : Oral (rat) LD50 > 2g/kg (estimated)
 Inhalation : Lung irritation
 Others : Eye and skin irritation

In the event of exposure, skin irritation, asthma, allergic reaction, respiratory disorders and lung injury may occur.

12. **Ecological Data**

Ecotoxicity:

None expected with recommended use and disposal

Bioaccumulation:

None expected with recommended use and disposal

Other ecological impacts:

None expected with recommended use and disposal

13. **Disposal Considerations**

The battery has to be electrically isolated before disposal. Disposal must be done following local regulations.

14. **Transport Information**

Always use a label outside of the package, showing that the content is a Lithium battery. When transporting a large quantity of Li-Ion batteries, avoid high temperatures or high humidity, even for short periods of time.

The packing material must prevent damage, short circuit or displacement of the battery packs even if the batteries are dropped from a height of 1.2m on each corner/orientation of the package.

UN transportation regulation :	UN 3480
Shipping name :	Lithium Ion batteries (PI 965)
UN-Class :	Class 9
SP188 :	May be used if energy content of the battery is < 100Wh and single cell energy content is < 20Wh, the batteries are tested according UN38.3, the test summary report for the battery is in access of the shipper and the batteries are appropriate packed and wear appropriate labeling according to the kind of transportation(IATA, IMDG, IACO, ADR,...)

When contained in or shipped with Equipment

UN Transport Regulation :	UN 3481
Shipping name :	Lithium ion batteries packed with equipment (PI 966)
or Shipping name :	Lithium ion batteries contained in equipment (PI 967)
UN-Class :	Class 9
SP188 :	May be used if energy content of the battery is < 100Wh and single cell energy content is < 20Wh, the batteries are tested according UN38.3, the test summary report for the battery is in access of the shipper and the batteries are appropriate packed and wear appropriate labeling according to the kind of transportation(IATA, IMDG, IACO, ADR,...)

Other and additional restrictions may apply (for example, maximum container weight, number of batteries, max Li-equivalent on pallets and special shipment papers) depending on the shipment type (IATA, ICAO, ADR, IMDG...) Special approved packing might be needed. It is the shipper's responsibility to ensure the most current and valid regulations and transportation restrictions are used for the shipment.

15. Regulatory Information

- IATA Dangerous goods Regulations Edition 66 2025 (IATA DGR)
- IMDG-Code (International Maritime Dangerous Goods Code) 2025 Edition
- UN Model Recommendations for the Transport of Dangerous Goods, Model Regulations
- UN Manual of Tests and Criteria Part 38.3
- Battery REGULATION (EU) 2023/1542
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

16. Further Information

The data and information presented herein is based on the knowledge and experience available to us at this time and is intended to describe our product with respect to possible occupational health and safety concerns. We do not take any responsibility for wrong or missing information. All information is relevant just to our product and may be incomplete when our product is used in conjunction with other products. The user of this product has sole responsibility for determining the suitability of the product for any use and manner of use intended, and the regulations applicable to such use in relevant jurisdiction.

This PSDS is updated on a periodic basic in accordance with applicable health and safety standards.

Fey Elektronik GmbH does not take any responsibility for damages, loses of any kind, either direct or indirect, neither they occur causal or occasionally out of the usage of the herein given information.

Glossary:

ABS: Acrylonitrile Butadienestyrene Copolymer

PVC: Poly Vinyl Chloride

PET: Polyethylene terephthalate

Shipper

A. HARTRODT DEUTSCHLAND
(GMBH & CO) KG
RECHA-LUEBKE-DAMM 31
20097 HAMBURG
GERMANY

B/L No.
VER284658

- A

saco

SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED

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

6/06/HAM/167815

Copy

Consigned to order of

A. HARTRODT MEXICO S.A. DE C.V.
RFC: AHM0810275D8
AV. INSURGENTES SUR 800, FLOOR 9
C.P. 03100. CIUDAD DE MEXICO
MEXICO

Notify Party and address

A. HARTRODT MEXICO S.A. DE C.V.
RFC: AHM0810275D8
AV. INSURGENTES SUR 800, FLOOR 9
C.P. 03100. CIUDAD DE MEXICO
MEXICO

	Place of receipt HAMBURG CFS		
Ocean vessel MAERSK MONTE LINZOR 625S	Port of loading HAMBURG		
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS	Freight payable FREIGHT PREPAID	Number of original Bills of Lading 0/ZERO
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain
			Gross weight, kg. Measurement, m ³

CARGO DETAILS AS PER ATTACHED STATEMENT

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
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 21.06.2026

Signed on behalf of the Carrier SACO SHIPPING LINE LIMITED

SACO Shipping GmbH
Wollkämmerstraße 1
21107 Hamburg
Germany

saco

As agent only for SACO SHIPPING LINE LIMITED LIMASSOL



Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
3001431835	1 PALLET	MEDICAL EQUIPMENT HS CODE: 85072080		362,710	0,998 - A
STOWED INTO CONTAINER NO.: MRKU4134911		S.P. 238		SEAL : B140177	
3001452180	2 CARTONS	SAFETY EQUIPMENT HS CODE: 90271010		4,140	0,048 - A
STOWED INTO CONTAINER NO.: MRKU4134911		S.P. 188		SEAL : B140177	
HD 5002683432 LPE039956 / 2200553 MEXICO D.F. / MEXICO NR 1-2 STOWED INTO CONTAINER NO.: MRKU4134911	2 PACKAGES	MEDICAL EQUIPMENT HS CODE: 90192010 90192090		115,000	0,825 - A
STOWED INTO CONTAINER NO.: MRKU4134911				SEAL : B140177	
3001456458	1 PALLET	SAFETY EQUIPMENT HS CODE: 63079093		95,000	1,238
STOWED INTO CONTAINER NO.: MRKU3545420				SEAL : B140174	
TOTAL		6 PACKAGES		576,850 KGS	3,109 CBM

Shipper
HANSA GATEWAY UG
(HAFTUNGSBESCHRAENKT)
WAGNERSTR. 14
08523 PLAUEN, GERMANY
TAX-ID: DE273690361
TEL.: +49(0)37415764858

B/L No.
VER284660



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

6/06/HAM/167816

Copy

Consigned to order of
ALOW FORWARDING MEXICO S.A. DE C.V.
CALLE NORTE 196, #694.
COL. PENSADOR MEXICANO, VENUSTIANO CARRANZA,
CDMX MEXICO C.P: 15510
TAX-ID: AFM161125D16
PH. + 52 (559) 035 4808
CTC: OCEAN@ALOW.COM.MX

Notify Party and address
ALOW FORWARDING MEXICO S.A. DE C.V.
CALLE NORTE 196, #694.
COL. PENSADOR MEXICANO, VENUSTIANO CARRANZA,
CDMX MEXICO C.P: 15510
TAX-ID: AFM161125D16
PH. + 52 (559) 035 4808
CTC: OCEAN@ALOW.COM.MX

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE LINZOR 625S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable VERACRUZ
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. PRETTL DE MEXICO MEXICO 901956263 901955699 901957749 901957750 STOWED INTO CONTAINER NO.: MRKU4134911	Quantity of Goods 3 PACKAGES	Description of Goods CONNECTORS & BRASS TINNED HS CODE: 8535	Said to contain Gross weight, kg. 406,000 Measurement, m ³ 2,420

SEAL : B140177

TOTAL **3 PACKAGES** **406,000 KGS** **2,420 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;

- 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 21.06.2026

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
MOCOM COMPOUNDS GMBH & CO. KG
MÜHLENHAGEN 35
20539 HAMBURG, DE
TAX ID: DE328577358
TEL.: +49 40 781050

B/L No.
VER284670



SACO SHIPPING LINE LTD

Consigned to order of
MOCOM COMPOUNDS PLASTIC S DE RL DE CV
BLVD ANTONIO L RODRIGUEZ #116 / PISO 11
COL. SANTA MARIA.
MONTERREY. NUEVO LEON
CP. 64650 MEXICO *

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

6/06/HAM/167824

Copy

Notify Party and address
JUAN DE JESUS BARAJAS ACEVES - PATENTE #
3389
AGENCIA ADUANERA DE AMERICA EN VERACRUZ S.C.
DIRECCION: C. CONSTITUCION 384,
CENTRO, 91700 VERACRUZ, VER.**

		Place of receipt				
		HAMBURG CFS				
Ocean vessel	Port of loading					
MAERSK MONTE LINZOR 625S	HAMBURG					
Port of discharge	Place of delivery	Freight payable	Number of original Bills of Lading			
VERACRUZ	VERACRUZ CFS	HAMBURG	0/ZERO			
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg. Measurement, m ³		
CARGO DETAILS AS PER ATTACHED STATEMENT						

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
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.

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Place and date of issue
HAMBURG 21.06.2026

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

Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
MOCOM COMPOUNDS PLASTIC S DE RL DE CV PO# 117268-03 & 117331-03 MX CCPO # 4500820791 VERACRUZ PORT / MEXICO TA 447134 / 82779406	1 PALLET	HEAT TREATED WITH 40 BAGS OF PLASTIC GRANULES ALCOM PC 740/4 UV CC1320-08LG HS CODE: 3907 4000 TA 447134 / 82779406 GROSS WEIGHT: 1030 KGS NET WEIGHT: 1000 KGS . * ATN: ALDO JUAREZ EMAIL: ALDO.JUAREZ@MOCOM.MX PHONE: +52 (81) 1821-0921 RFC APM160705UL3 ** TELEFONO: OF: 22 9272 6600 MOVIL: 229 343 9547 RFC: BAAJ350723NPA CONTACT: DANIELA LEVI ARCOS & ELVIA USCANGA EMAIL : DANIELA.LEVI@AAAMERICA.COM.MX, EUSCANGA@AAAMERICA.COM.MX, BEATRIZ.BARRANCO@AAAMERICA.COM .MX.		1030,000	2,014
STOWED INTO CONTAINER NO.: MRKU4134911				SEAL : B140177	
TOTAL		1 PALLET		1030,000 KGS	2,014 CBM

Shipper
LINKINPARTNER EUROPE GMBH
HAMMERBROOKSTR. 90
20097 HAMBURG
GERMANY

B/L No.
VER284687



Consigned to order of
EUROPARTNERS MEXICO S.A. DE C.V
AVENIDA REVOLUCION #649
COLONIA JARDIN ESPANOL MONTERREY
NUEVO LEON, MEXICO, CP. 64820
RFC: EME020824U4A

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

6/06/HAM/167836

Copy

Notify Party and address
EUROPARTNERS MEXICO S.A. DE C.V
AVENIDA REVOLUCION #649
COLONIA JARDIN ESPANOL MONTERREY
NUEVO LEON, MEXICO, CP. 64820
RFC: EME020824U4A

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE LINZOR 625S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable VERACRUZ
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. HARTING MEXICO MANUFACTURING SA DE CV 2026-20604 STOWED INTO CONTAINER NO.: MRKU4134911	Quantity of Goods 8 PACKAGES	Description of Goods TECHNOMELT PA 638 BLACK HS-CODE: 390890	Said to contain Gross weight, kg. 4380,800 Measurement, m ³ 12,978

SEAL : B140177

TOTAL **8 PACKAGES** **4380,800 KGS** **12,978 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 21.06.2026

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
MAYSER GMBH & CO. KG
EISELAUER WEG 4
89081 ULM
GERMANY

B/L No.
VER284715



SACO SHIPPING LINE LTD

Consigned to order of
HI-LEX MEXICANA S.A. DE C.V.
FRACC. IND. SAN PEDRITO QUER.
AV.PENUELAS NO.9
76148 QUERETARO, ORO.,
SAN PEDRITO PENUELAS MEXICO MEXIKO

Notify Party and address
HI-LEX MEXICANA S.A. DE C.V.
EMMA.DIAZ@HI-LEX.COM
TAX-ID NO.: HLM931001QV0
TEL: 52 442 238 41 00 ETX. 4129

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

6/06/HAM/167854

Copy

		Place of receipt ULM	
Ocean vessel MAERSK MONTE LINZOR 625S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable FREIGHT PREPAID
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. INVOICE: 90058793 DELIVERY NOTE: 80102723, 80102720, 80102719 STOWED INTO CONTAINER NO.: MRKU4134911	Quantity of Goods 8 PALLETS	Description of Goods ANTI-PINCH SENSOR HS CODE: 85389099	Said to contain Gross weight, kg. 900,000 Measurement, m ³ 7,910
		SEAL : B140177	

TOTAL **8 PALLETS** **900,000 KGS** **7,910 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 21.06.2026

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
QCS-QUICK CARGO SERVICE GMBH
WERNER-WITT-STRASSE 5
21035 HAMBURG, GERMANY
TAX-ID:DE114202533
TELEPHONE: 00494023838940

B/L No.
VER284719



SACO SHIPPING LINE LTD

Consigned to order of
AIRMAR TRANSPORTES INTERNACIONALES
S.A. DE C.V. NORTE 174, NO. 549,
COL PENSADOR MEXICANO 15510 MEXICO,
CDMX MEXICO RFC: ATI 9307029F8
TEL: 52.55.19.99.90.00

Notify Party and address
AIRMAR TRANSPORTES INTERNACIONALES
S.A. DE C.V. NORTE 174, NO. 549,
COL PENSADOR MEXICANO 15510 MEXICO,
CDMX MEXICO RFC: ATI 9307029F8
TEL: 52.55.19.99.90.00

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

6/06/HAM/167857

Copy

		Place of receipt HAMBURG CFS	
Ocean vessel MAERSK MONTE LINZOR 625S		Port of loading HAMBURG	
Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS		Freight payable VERACRUZ
		Number of original Bills of Lading 0/ZERO	
Marks and Nos. BENECKE-KALI KO GMBH GRUPO ANTOLIN TLAXCALA STOWED INTO CONTAINER NO.: MRKU4134911	Quantity of Goods 3 PALLETS	Description of Goods AUTOMOTIVE SPARE PARTS AS PER INVOICE: 90019297 HS-CODE: 39211200	Said to contain Gross weight, kg. 1105,000 Measurement, m ³ 2,898

SEAL : B140177

TOTAL **3 PALLETS** **1105,000 KGS** **2,898 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 21.06.2026

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
GEODIS SWEDEN AB
ROSENLUNDSGATAN 8
PO BOX 7091
40232 GÖTEBORG
SWEDEN

B/L No.
VER284759



SACO SHIPPING LINE LTD

Consigned to order of
GEODIS MEXICO, S.A. DE C.V.
AV. INSURGENTES SUR NO.1602, PISO 18
COL. CREDITO CONSTRUCTOR, CP. 03940 CIUDAD
DE
MEXICO, MEXICO
TAX ID:GWM790307NB0
TPCONTROLTOWER.FF.MX@GEODIS.COM

Notify Party and address
GEODIS MEXICO, S.A. DE C.V.
AV. INSURGENTES SUR NO.1602, PISO 18
COL. CREDITO CONSTRUCTOR, CP. 03940 CIUDAD
DE
MEXICO, MEXICO
TAX ID:GWM790307NB0
TPCONTROLTOWER.FF.MX@GEODIS.COM

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

6/06/HAM/167872

Copy

Place of receipt
HAMBURG CFS

Ocean vessel
MAERSK MONTE LINZOR 625S
Port of loading
HAMBURG

Port of discharge VERACRUZ	Place of delivery VERACRUZ CFS	Freight payable HAMBURG	Number of original Bills of Lading 0/ZERO
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Marks and Nos. PO 0929361970	Quantity of Goods 1 CASE	Description of Goods PARTS FOR DAIRY EQUIPMENT HS CODE:____???	Said to contain	Gross weight, kg. 84,000	Measurement, m ³ 0,371
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STOWED INTO CONTAINER NO.: MRKU4134911

SEAL : B140177

TOTAL	1 CASE	84,000 KGS	0,371 CBM
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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.

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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 21.06.2026

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
DACHSER SE
OCEAN FREIGHT GATEWAY HAMBURG
AS AGENT OF KINGWOOD LOGISTICS LTD.
WILHELM-IWAN-RING 21
DE 21035 HAMBURG MR./MRS.
+49 40 781160
DACHSER.HAMBURG-SEA-GATEWAY@DACHSER.COM

B/L No.
VER381954 - A



SACO SHIPPING LINE LTD

SACO SHIPPING LINE LIMITED

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

6/06/HAM/167847

Copy

Consigned to order of
DACHSER DE MEXICO S.A. DE C.V.
MEXICO CITY BRANCH
AIR & SEA LOGISTICS
EJERCITO NACIONAL 843B, PISO 3
COL. GRANADA
MX 11520 CMX MIGUEL

Notify Party and address
DACHSER DE MEXICO S.A. DE C.V.
MEXICO CITY BRANCH
AIR & SEA LOGISTICS
EJERCITO NACIONAL 843B, PISO 3
COL. GRANADA
MX 11520 CMX MIGUEL HIDALGO
RFC+DME0602243X6

		Place of receipt			
		HAMBURG CFS			
Ocean vessel		Port of loading			
MAERSK MONTE LINZOR 625S		HAMBURG			
Port of discharge	Place of delivery	Freight payable	Number of original Bills of Lading		
VERACRUZ	VERACRUZ CFS	HAMBURG	0/ZERO		
Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, ka.	Measurement, m ³

CARGO DETAILS AS PER ATTACHED STATEMENT

FREIGHT PREPAID - SHIPPED ON BOARD - EXPRESS RELEASE

All particulars above declared by Merchant

For delivery of cargo please apply to:

INTERTEAM, S.A. DE C.V.
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

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US\$
Ad valorem freight paid:

Note:

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Place and date of issue
HAMBURG 21.06.2026

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



Marks and Nos.	Quantity of Goods	Description of Goods	Said to contain	Gross weight, kg.	Measurement, m ³
D/N 56054686 FEDERAL-MOGUL S.A . DE C.V. POWERTRAIN MEXICO CA RRETERA RESURRE NO.90 CAMINO A MANZANILLA H.PUEBLA DE ZARAGO ZA 72304 PUEBLA MEXICO STOWED INTO CONTAINER NO.: TCNU2969220	7 PALLETS	PARTS FOR DIESEL ENGINES HS CODE: 84099900		5895,400	3,164
HERCAB MERIDA, YUCATAN MEXICO NO. 1/9 - 9/9 STOWED INTO CONTAINER NO.: MRKU4134911	9 PACKAGES	STRESSING JACKS, HYDR. PUMP UNITS, SETS OF WEDGES, BARRELS, STRESSING GRIPS, GAUGES, HEAD ADAPTER, G UIDE TUBES, SEAL KITS, SETS OF CLAMPING JAWS, SPRI NGS, PRESSURE RELIEF VALVES HS -CODES: 84798997, 90 262040, 82055980, 73079910, 84798070, 84849000 NET WEIGHT: 2713,00 KG TAX-ID CONSIGNEE: HER0109184N0		3162,000	7,134
				SEAL : B140122	
				SEAL : B140177	
TOTAL	16 PACKAGES			9057,400 KGS	10,298 CBM

- A