

CSR-KEMH/Eol/

Expression of Interest.

Subject- To invite Expression of Interest from Original Equipment Manufacturer /Vendor / Distributor to supply of **Rechargeable Sealed Lead Acid Battery/ Valve regulated Lead Acid Battery/ AGM Dept of CVTS KEM Hospital through MPLAD Fund.**

King Edward Memorial Hospital is one of the leading tertiary care, public hospitals in the metropolis of Mumbai that provides basic as well as specialized services to needy patients from all over the country. With a glorious legacy of 96 years and currently catering to over 1.8 million out-patients and 85,000 in-patients annually, the institute is among the top ranked medical institutes in India. The CSR Wing of the Social Service Department has been working hard to raise funds to procure advanced medical equipment for various medical and surgical specialty and super specialty departments of KEM, with the objective of providing state of the art facilities to the underprivileged sections of our society.

Through MPLAD funds, we wish to purchase a **Rechargeable Sealed Lead Acid Battery/ Valve regulated Lead Acid Battery/ AGM for Dept of CVTS KEM Hospital**

For purchase of the above equipment, it is proposed to invite "Expression of Interest" from Original Equipment Manufacturer /vendors / Distributor, to supply the same to KEM Hospital. To supply **Rechargeable Sealed Lead Acid Battery/ Valve regulated Lead Acid Battery/ AGM**. Original Equipment Manufacturer /vendors / Distributor should purchase a form, from Poor Box Charity Fund, KEM Hospital from 10/01/24 to 19/01/24 in working hours and all proposals with the required documents should be submitted on or before 19/01/24 (by 1.00 pm) in the Department of CVTS, CVTC Building, ground floor KEM Hospital, Parel, Mumbai 400012. With Two packet System (i.e. Packet A is a Administrative & Technical Documents & Packet B is a commercial) do not disclosed the price other than commercial packet. The packet will be open in front of Heart Transplant Committee as per schedule decided by committee.

BRIHANMUMBAI MUNICIPAL CORPORATION OF GREATER MUMBAI

**King Edward VII Memorial Hospital,
CSR Wing, Social Service Department,
Parel, Mumbai 400012**

Specifications For Rechargeable Sealed Lead Acid Battery/ Valve regulated Lead Acid Battery/ AGM for Dept Of CVTS Kem Hospital

		Description
Name of Equipment		<u>Rechargeable Sealed Lead Acid Battery/ Valve regulated Lead Acid Battery/ AGM Dept of CVTS KEM Hospital</u>
Specification of Equipment		Attached to ANNEXURE VI

BRIHANMUMBAI MUNICIPAL CORPORATION OF GREATER MUMBAI

King Edward VII Memorial Hospital,

CSR Wing, Social Service Department,

Parel, Mumbai 400012

General Conditions :

Warranty period	Comprehensive warranty on equipment and all spares shall be three years. Inclusion and exclusion of Warranty documents should be clearly stipulated.
CMC	<u>Comprehensive Maintenance Contract (CMC)</u> 1) After the warranty period of 3 years is over, five years Comprehensive Maintenance Contract (CMC) will have to be entered into with the terms and conditions mentioned in the documents as per BMC norms. List of spare parts / consumables will be submit by supplier with cost freeze in advance for the warranty and CMC period. 2) The successful supplier must ensure that all the required spares/consumables and services are available during warranty and CMC period and 2 years after that, duly backed by the principal.
<u>Delivery & Installation Period</u>	1) Supplier should give free delivery at user department of KEM Hospital within 30 days or as soon as possible from the date of receipt of purchase order. 2) Installation and commissioning of equipment shall be done within 7 days from the delivery of the equipment.

BRIHANMUMBAI MUNICIPAL CORPORATION OF GREATER MUMBAI

**King Edward VII Memorial Hospital,
CSR Wing, Social Service Department,
Parel, Mumbai 400012**

**GENERAL
REQUIRE
MENTS:**

- 1) Price should include GST charges & any other charges (Supplier needs to submit basic cost of equipment and GST rate in prescribed format).
- 2) The above equipment shall be new and manufactured from virgin materials.
- 3) It is mandatory to provide free installation & training for use of equipment.
- 4) The equipment should have warranty of three years as described in the terms and condition document. The warranty and CMC shall cover the list of spare parts and the rate of which shall be valid for total 8 years (warranty 3 years and CMC 5 years) irrespective of whether those are treated as consumables or otherwise.
- 5) After the warranty period is over, five years Comprehensive Maintenance contract (CMC) will have to entered into with the terms and conditions mentioned in the documents as per BMC norms. List of spare parts / consumables will be submitted by supplier with cost freeze in advance for the warranty and CMC period
- 6) It should be European CE certified along with declaration of conformity or USFDA approved.
- 7) 3 years comprehensive warranty followed by 5 years comprehensive maintenance contract.
- 8) Demonstration of quoted model is compulsory and to be given at an end user site.
- 9) User list with address and phone number to be provided
- 10) The Successful supplier must ensure that all the required spares/consumables and services are available during warranty and CMC period.
- 11) All the requirements of this supply shall be sourced from the original equipment manufacture of the model quoted
- 12) Power supply: 230 V, 50 Hz. The main supply voltage variation may be maximum 15% and frequency variation maximum 3%.

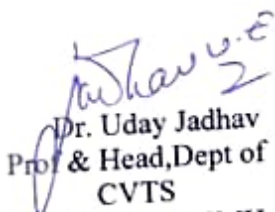
BRIHANMUMBAI MUNICIPAL CORPORATION OF GREATER MUMBAI

King Edward VII Memorial Hospital,
CSR Wing, Social Service Department,
Parel, Mumbai 400012

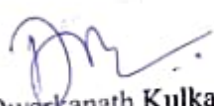
- 13) The equipment shall have valid CE mark / US FDA approved and documentary evidence to that effect needs to be submitted.
- 14) Training to Medical Electronics Cell Engineers from servicing point of view and to user department from operating point of view is compulsory.
- 15) Supplier should submit all technical details in the form of technical brochures / leaflets for all the equipment proposed for supply and mentioned in the technical offer.

The supplier should be submit documents mention in chek list attached herewith.

If any doubts or any query about above mentioned work, you can contact Heart Transplant Committee / Dept of CVTS, KEM Hospital, Parel, Mumbai - 400012.


Dr. Uday Jadhav
Prof & Head, Dept of
CVTS
GSMC & KEMH


Dr. UDAY JADHAV
PROF. & HEAD, DEPT. OF CVTS
GSMC & KEMH
Parel, Mumbai - 400 012

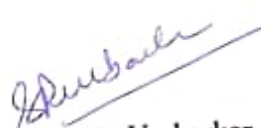

Dr. Dwarkanath Kulkarni
Prof & Head of unit,
Dept of CVTS
GSMC & KEMH

Cardio Vascular Surgery
KEM Hospital, Parel, Mumbai - 400 012


Dean,
GSMC & KEMH

Dean, K.E.M.H. & Seth G.S.M.C.,
Parel, Mumbai - 400 012.


Dr. Ajay Mahajan
Prof & Head, Dept of Cardiology
GSMC & KEMH
Department of Cardiology
SETH, GSMC & KEMH,
Parel, Mumbai - 400 012.


Dr. Sanjeeta Umbarkar
Prof & head, Dept of Cardiac Anaesthesia
(Add) GSMC & KEMH

Dr. Sanjeeta Umbarkar
Professor & Head Of Dept.
(Add) Cardiac Anaesthesia
Seth G. S. Medical College. &
KEM Hospital Mumbai.

BRIHANMUMBAI MUNICIPAL CORPORATION OF GREATER MUMBAI**King Edward VII Memorial Hospital,****Department of cardiovascular and Thoracic****surgery, Parel, Mumbai 400012****Check list of Documents to be submitted as per the order given below.**

Sr No	Administrative Documents	Sr. No.	Technical Documents
1	Authorization Certificate	1	Technical Offer
2	Undertaking about CMC for 5 year after 3 year warranty period is over will be follows as per BMC norms	2	List of Consumables (Applicable in Warranty & CMC Period)
3	Signed copy of Terms & Condition of EOI Document	3	Comparison of EOI specification v/s Quoted equipment specification
4	Firm/Company/ Sanstha Registration Certificates	4	Experience Certificate
5	Partnership deed (If applicable)	5	Past Performance Certificate of Quoted Equipment.
6	Pan Card with Photograph.(Only for Indian Bidder)	6	Copy of valid CE certificate OR copy of valid USFDA approval as mentioned in General Conditions (Technical specifications).
7	GST Registration Certificate as applicable	7	Technical brochure of quoted model
8	Import / Export license issued by competent authority(if applicable)	8	List of Spare Parts (Applicable in Warranty & CMC Period)
9	Power of Attorney to sign the tender		
10	Special Annexure for GST		
11			
12			
13			
14			

**Authorized Signature of the Bidder
with Official Seal & Address**



SAFETY DATA SHEET REPORT

SDS Number: 70.405.23.0485.01
Dated 2023-02-24

PRODUCT AND COMPANY IDENTIFICATION

Product Name: Rechargeable Sealed Lead Acid Battery/Valve Regulated Lead Acid Battery/AGM

Company: Power-Sonic Corporation

Address: 365 Cabela Dr. Suite 300 Reno, NV 89503

Telephone: 775-824-6500

Email: puneet.kalia@power-sonic.com

Fax: N/A

Emergency Phone: 1-800-222-1222

Recommend use of the chemical and restrictions on use:

Industrial and General Purpose battery. Power supply

SDS Number:

70.405 23.0485.01

Effective Date:

2023-02-24

Service Requested:

Safety Data Sheet for the Product

Summary:

The contents and format of this SDS are in accordance with Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (According to HCS-2012 APPENDIX D TO §1910.1200)

Note

This SDS is compiled based on the information such as ingredients provided by the applicant and our current knowledge. This SDS shall be used only as a guide. The users of this SDS must make independent judgments on the correctness and completeness and then decide its suitability according to the actual situation. The users should take the relevant legal responsibilities for the consequences of use

TUV SUD Certification and Testing (China) Co., Ltd. Shanghai Branch
Testing Center
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Rechargeable Sealed Lead Acid Battery

Safety Data Sheet

According to Federal Register (Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations / Amendment to HCS 2012 APPENDIX D TO §1910.1200)
Issue date: 2/24/2023 / Revision date: 2/24/2023 / Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	Article
Trade name	Rechargeable Sealed Lead Acid Battery/Valve Regulated Lead Acid Battery/AGM
Model No	PS,PHR/PDC/PG/PSH/PG2V/PGFT/PSS/AGM FA Series

1.2. Recommended use and restrictions on use

Recommended use	Industrial and General Purpose battery / Power supply
Restrictions on use	No information available

1.3. Supplier

Power-Sonic Corporation
365 Cabela Dr. Suite 300 Reno, NV 89503
775-824-6500
puneet.kalia@power-sonic.com

1.4. Emergency telephone number

Emergency number	1-800-222-1222
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SECTION 2: Hazard(s) Identification

2.1. Classification of the substance or mixture

GHS US classification
Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling
No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	
Lead	CAS No. 7439-92-1	30 - 35

Rechargeable Sealed Lead Acid Battery

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (According to HCS-2012 APPENDIX D TO §1910.1200)

Name	Product identifier	%
lead compound	CAS-No. /	33 - 35
Sulfuric acid	CAS-No. 7664-93-9	16-23
2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene	CAS-No. 9003-56-9	3.7
Glass fiber separator	CAS-No. /	4.6
Tin	CAS-No. 7440-31-5	0.1 - 0.25
Calcium	CAS-No. 7440-70-2	0.04 - 0.11

Full text of hazard classes and H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	Not an expected route of exposure
First-aid measures after skin contact	Wash skin with plenty of water
First-aid measures after eye contact	Not an expected route of exposure
First-aid measures after ingestion	Not an expected route of exposure. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	Water spray, Dry powder, Foam
Unsuitable extinguishing media	No information available

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	Toxic fumes may be released
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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	Cool down the containers exposed to heat with a water spray. Do not allow run-off from fire fighting to enter drains or water courses. Eliminate every possible source of ignition. Approach from upwind. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to a safe area. Avoid contact with skin and eyes.
Protection during firefighting	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Rechargeable Sealed Lead Acid Battery

Safety Data Sheet

According to Federal Register / Vol. 77, No. 56 / Monday, March 20, 2012 / Rules and Regulations / According to HLS 2012 APPENDIX D TO §1910.1200

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

Ventilate spillage area. Access forbidden to unauthorised personnel. Avoid contact with eyes, skin and clothing. Do not touch or walk on the spilled product. Eliminate all ignition sources if safe to do so. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to a safe area. First aid personnel should wear appropriate protective equipment during any rescue. Handle in accordance with good industrial hygiene and safety procedures. In case of fire, stop leak if safe to do so. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Remove all sources of ignition. Remove person to uncontaminated area. Stay upwind/keep distance from source. Take action to prevent static discharges. Use personal protective equipment as required.

6.1.2. For emergency responders

Protective equipment

Do not attempt to take action without suitable protective equipment. For further information refer to section 8 "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment

6.3. Methods and material for containment and cleaning up

For containment

Methods for cleaning up

Collect spillage

Mechanically recover the product. Absorb spillage to prevent material damage. Place in an appropriate container and dispose of the contaminated material at a licensed site. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Collect all waste in suitable and labelled containers and dispose according to local legislation.

Other information

Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

Ensure good ventilation of the work station. Wear personal protective equipment. Do not open, destroy or incinerate batteries because the battery may explode, break or vent during these processes. Do not short-circuit the battery, overcharge, forced discharge or throw into the fire. Do not squeeze the battery or immerse the battery in the solution. Avoid contact with eyes, skin and clothing. Do not breathe gas/fumes/vapour/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from heat and direct sunlight.

Hygiene measures

Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Avoid high temperatures. Keep away from heat and direct sunlight. Store in a dry, cool and well ventilated place. Protect from moisture. Avoid shorting.

Rechargeable Sealed Lead Acid Battery

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (According to HCS 2012 APPENDIX D TO §1910.1200)

Calcium (7440-70-2)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls

Ensure good ventilation of the work station

Environmental exposure controls

Avoid release to the environment

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Not required

Skin and body protection

Wear suitable protective clothing

Respiratory protection

Not required

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Grey/Blue/Black solid
Colour	Grey/Blue/Black
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	Non flammable
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Solubility	No data available
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity kinematic	No data available
Viscosity dynamic	No data available
Explosive limits	No data available
Explosive properties	No data available

9.2. Other information

No additional information available

Rechargeable Sealed Lead Acid Battery

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations / According to HCS 2012 APPENDIX D TO § 1910.1200

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Sulfuric acid (7664-93-9)	
LD50 oral rat	2140 mg/kg
LC50 Inhalation - Rat	0.375 mg/l/4h
ATE US (oral)	2140 mg/kg body weight
ATE US (vapors)	0.375 mg/l/4h
ATE US (dust, mist)	0.375 mg/l/4h
Tin (7440-31-5)	
LD50 oral rat	700 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 4.75 mg/l/4h
ATE US (oral)	700 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

Rechargeable Sealed Lead Acid Battery

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Lead (7439-92-1)

IARC group	2A - Probably carcinogenic to humans
National Toxicity Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

Sulfuric acid (7664-93-9)

IARC group	1 - Carcinogenic to humans
National Toxicity Program (NTP) Status	Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list	Yes
Reproductive toxicity	Not classified
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified
Aspiration hazard	Not classified
Viscosity, kinematic	Not applicable

SECTION 12: Ecological Information

12.1. Toxicity

Ecology - general: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Lead (7439-92-1)

LC50 - Fish [1]	0.44 mg/l (Exposure time: 96 h - Species: <i>Cyprinus carpio</i> [semi-static])
EC50 - Crustacea [1]	600 µg/l (Exposure time: 48 h - Species: water flea)
LC50 - Fish [2]	1.17 mg/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i> [flow-through])

Sulfuric acid (7664-93-9)

LC50 - Fish [1]	> 500 mg/l (Exposure time: 96 h - Species: <i>Brachydanio rerio</i> [static])
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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Sulfuric acid (7664-93-9)

BCF - Fish [1]	(no bioaccumulation)
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

Rechargeable Sealed Lead Acid Battery

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Sulfuric acid (7664-93-9)

RQ (Reportable quantity section 304 of EPA's List of Lists) 1000 lb

Section 302 EPCRA Reportable Quantity (RQ) 1000 lb

SARA Section 302 Threshold Planning Quantity (TPQ) 1000 lb

15.2 International regulations

CANADA

Lead (7439-92-1)

Listed on the Canadian DSL (Domestic Substances List)

Toxic Substance (CEPA - Schedule I) Yes

Sulfuric acid (7664-93-9)

Listed on the Canadian DSL (Domestic Substances List)

2-Propenenitrile, polymer with 1,3-butadiene and ethonylbenzene (9003-56-9)

Listed on the Canadian DSL (Domestic Substances List)

Tin (7440-31-5)

Listed on the Canadian DSL (Domestic Substances List)

Calcium (7440-70-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Lead (7439-92-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Sulfuric acid (7664-93-9)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Tin (7440-31-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Calcium (7440-70-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Rechargeable Sealed Lead Acid Battery

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according to Federal Register / Vol. 77, No. 56 / Monday, March 26, 2012 / Rules and Regulations (According to HCS 2012 APPENDIX D TO §1910.1200)

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods

Contaminated packaging

Dispose of contents/container in accordance with licensed collector's sorting instructions
Destroy the product by incineration (in accordance with local and national regulations).
Dispose of contents/container in accordance with licensed collector's sorting instructions
Destroy packaging by incineration at an approved waste disposal site. In accordance with local and national regulations

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No	UN2800
UN-No. (TDG)	UN2800
UN-No. (IMDG)	2800
UN-No. (IATA)	2800

14.2. UN proper shipping name

Proper Shipping Name (DOT)	Batteries, wet, non-spillable
Proper Shipping Name (TDG)	BATTERIES, WET, NON-SPILLABLE
Proper Shipping Name (IMDG)	BATTERIES, WET, NON-SPILLABLE
Proper Shipping Name (IATA)	Batteries, wet, non-spillable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	8
Hazard labels (DOT)	8



TDG

Transport hazard class(es) (TDG)	8
Hazard labels (TDG)	8



IMDG

Transport hazard class(es) (IMDG)	8
Hazard labels (IMDG)	8



IATA

Transport hazard class(es) (IATA)	8
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Rechargeable Sealed Lead Acid Battery

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Hazard labels (ATA)

8



14.4. Packing group

Packing group (DOT)	Not applicable
Packing group (TDG)	Not applicable
Packing group (IMDG)	Not applicable
Packing group (ATA)	Not applicable

14.5. Environmental hazards

Other information: No supplementary information available

14.6. Special precautions for user

DOT	
UN-No (DOT)	UN2800
DOT Packaging Exceptions (49 CFR 173.xxx)	159a
DOT Packaging Non Bulk (49 CFR 173.xxx)	159
DOT Packaging Bulk (49 CFR 173.xxx)	159
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	No Limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	No Limit
DOT Vessel Stowage Location	A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel
TDG	
UN-No (TDG)	UN2800
TDG Special Provisions	39 - (1) These dangerous goods may be handled, offered for transport or transported under this shipping name if the dangerous goods are (a) protected from short circuits, and (b) capable of withstanding, without leakage of battery fluid, the following tests: (i) a vibration test, in which (A) the battery is rigidly clamped to the platform of a vibration machine and a simple harmonic motion having an amplitude of 0.5 mm (1.6 mm maximum total excursion) is applied (B) the frequency is varied in steps of 1 Hz each minute between the limits of 10 Hz and 55 Hz (C) the entire range of frequencies and return is traversed in 95 ± 5 minutes with 2 minutes spent at each frequency for each mounting position (direction of vibration) of the battery, and (D) the battery is tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for equal time periods, and (ii) after the vibration test, a pressure differential test, in which (A) the battery is stored for 6 hours at 24 °C ± 4 °C while subjected to a pressure differential greater than or equal to 88 kPa, and (B) the battery is tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for at least 6 hours in each position (2) These Regulations, except for Part 1 (Coming into Force, Repeat Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to UN2800, BATTERIES, WET, NON-SPILLABLE, electric storage (that are not intended for disposal, if (a) at a temperature of 55 °C, electrolyte will not flow from a ruptured or cracked battery case and there is no free liquid to flow, and (b) when the battery is prepared for transport, the battery's terminals are protected from short circuits
Explosive Limit and Limited Quantity Index	1.1
Exempt quantities (TDG)	E0

Rechargeable Sealed Lead Acid Battery

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Emergency Response Guide (ERG) Number	154
IMDG	238
Special provision (IMDG)	1 L
Limited quantities (IMDG)	E0
Excepted quantities (IMDG)	E0
Packing instructions (IMDG)	P003
Packing provisions (IMDG)	PP16
EmS No. (Fire)	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS No. (Spillage)	S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	A
Properties and observations (IMDG)	Metal plates immersed in gelled alkaline or acid electrolyte in a glass, hard rubber or plastics receptacle of a non-spillable type. When electrically charged, may cause fire through short-circuiting of terminals. Cause burns to skin, eyes and mucous membranes
IATA	
PCA Excepted quantities (IATA)	E0
PCA Limited quantities (IATA)	Forbidden
PCA limited quantity max net quantity (IATA)	Forbidden
PCA packing instructions (IATA)	872
PCA max net quantity (IATA)	No limit
CAO packing instructions (IATA)	872
CAO max net quantity (IATA)	No limit
Special provision (IATA)	A48, A67, A164, A163
ERG code (IATA)	6L

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

Not applicable

SECTION 15: Regulatory Information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA)

Name	CAS No.	Listing	Commercial status	Flags
Lead	7439-92-1	Present	Active	
Sulfuric acid	7664-93-9	Present	Active	
2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene	9003-56-9	Present	Active	XU
Tin	7440-31-5	Present	Active	
Calcium	7440-70-2	Present	Active	

Lead (7439-92-1)

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ

10 lb no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is >100 µm

Sulfuric acid (7664-93-9)

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ

1000 lb

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National regulations

Lead (7439-92-1)

Listed on IARC (International Agency for Research on Cancer)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing - New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on INSO (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

Sulfuric acid (7664-93-9)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing - New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Japanese Poisonous and Deleterious Substances Control Law
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSO (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene (9003-56-9)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing - New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on INSO (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

Tin (7440-31-5)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing - New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on INSO (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

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Calcium (7440-70-2)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS inventory)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on IECS (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)
Listed on the NCI (Vietnam - National Chemical Inventory)

15.3. US State regulations

Lead (7439-92-1)

U S - California - Proposition 65 - Carcinogens List	U S - California - Proposition 65 - Developmental Toxicity	U S - California - Proposition 65 - Reproductive Toxicity - Female	U S - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Yes	Yes	Yes	Yes	15 µg/day (oral)	0.5 µg/day

SECTION 16: Other Information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (According to HCS-2012 APPENDIX D TO §1910.1200)

Issue date	2/24/2023
Revision date	2/24/2023
Data sources	Loi: ECHA reference
Training advice	Normal use of this product shall imply use in accordance with the instructions on the packaging

Abbreviations and acronyms

ADN	European Agreement concerning the International Carnage of Dangerous Goods by Inland Waterways
ADR	Agreement concerning the International Carnage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods

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Abbreviations and acronyms

LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No	Chemical Abstract Service number
N.O.S	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Indication of changes:

Not applicable.

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