



SDS Service Summary

No.: CANEC24025120502

Date: 18 Nov 2024

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SGS Job No. : SZP24-049536
Product Name : Valve Regulated lead-acid Battery
Manufacturer / Supplier : RITAR POWER (VIETNAM) CO, LTD.
Composition/Ingredient of product (as per applicant submission) : See *section 3 Composition/information on ingredients* on the SDS
Job Receiving Date : 11 Nov 2024
SDS Preparation Period : 11 Nov 2024-13 Nov 2024

Service Requested : Preparation of Safety Data Sheet (SDS) for the product with submitted information, with calculation of the classification and labeling requirement according to the submitted composition and US Hazard Communication Standard 29 CFR 1910.1200.

Summary : As per request, the contents and formats of the SDS are prepared in accordance with US Hazard Communication Standard 29 CFR 1910.1200, and is provided per attached.

Remark : Information of this SDS refer to SDS CANEC24025120501.

Disclaimer

This Safety Data Sheet (SDS) is provided to applicant to fulfill US Hazard Communication Standard 29 CFR 1910.1200 and communicate the hazard information of chemicals through the supply chain to ensure safe use. It is not a test report or a certificate ensuring the safety of a product. SGS has consolidated product information based on documents provided by Applicant (i.e. product name, the supplier details, product composition, available physical data, etc.) without independent verification from SGS. The information is provided without any warranty, express or implied, regarding its correctness.

Zm Guan
Project Engineer

Safety Data Sheet

29 CFR 1910.1200

Printing date 11/13/2024

Reviewed on 11/12/2024

1 Identification

- **Product identifier**
- **Trade name:** Valve Regulated lead-acid Battery
- **Recommended use of the chemical and restrictions on use:**
- **Application of the substance / the preparation:** Industrial use
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** RITAR POWER (VIETNAM) CO, LTD.
- **Full address:**
LOT A21, ROAD C4 , THANH THANH CONG INDUSTRIAL PARK, AN HOA WARD, TRANG BANG TOWN, TAY NINH PROVINCE, VIETNAM.
- **Phone number:** 13751179319
- **Email:** grace@ritarpower.com
- **Other U.S. contact point:** Not available
- **Further information obtainable from:** RITAR POWER (VIETNAM) CO, LTD.
- **Emergency telephone number:**
Poison Center
Tel: +1 800 222 1222
- **Reference Number:** CANEC24025120502,SZP24-049536
- **Remark:**
This product is likely to be classified as article and is out of scope of a SDS as set out in 29 CFR Part 1910.1200. This SDS is generated for applicant's reference only.

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carcinogenicity 1A	H350	May cause cancer.
Toxic to Reproduction 1A	H360-H362	May damage fertility or the unborn child. May cause harm to breast-fed children.
Specific Target Organ Toxicity - Repeated Exposure 2	H373	May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Skin Corrosion 1A	H314	Causes severe skin burns and eye damage.
Eye Damage 1	H318	Causes serious eye damage.



GHS07

Acute Toxicity - Oral 4	H302	Harmful if swallowed.
Acute Toxicity - Inhalation 4	H332	Harmful if inhaled.

- **Information concerning particular hazards for human and environment:**
The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).

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· **Classification system:**

The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.

· **Label elements**

· **Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)**

· **Hazard pictograms**



GHS05 GHS07 GHS08

· **Signal word** *Danger*

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

Lead dioxide

sulphuric acid

Lead massive [particle diameter ≥ 1 mm]

Glass, oxide, chemicals

· **Hazard statements**

H302+H332 Harmful if swallowed or if inhaled.

H314 Causes severe skin burns and eye damage.

H350 May cause cancer.

H360-H362 May damage fertility or the unborn child. May cause harm to breast-fed children.

H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dusts or mists.

P263 Avoid contact during pregnancy/while nursing.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

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

P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P321 Specific treatment (see on this label).

P314 Get medical advice/attention if you feel unwell.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Hazards not otherwise classified (HNOC)** No further relevant information available.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:**

Mixture of the substances listed below with nonhazardous additions.

For the wording of the listed hazard statements refer to Section 16.

· **Composition:**

CAS: 1309-60-0	Lead dioxide 	45%
CAS: 7439-92-1	Lead massive [particle diameter ≥ 1 mm] 	25%
CAS: 7664-93-9	sulphuric acid 	19.7%
CAS: 9003-56-9	2-Propenenitrile, polymer with 1,3-butadiene and ethenylbenzene	8%
CAS: 65997-17-3	Glass, oxide, chemicals 	2%
CAS: 7440-31-5	Tin	0.15%
CAS: 7440-70-2	Calcium 	0.15%

4 First-aid measures

· **Description of first aid measures**

· **General description:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **Special hazards arising from the substance or mixture:**

During heating or in case of fire poisonous gases are produced.

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- **Special protective equipment and precautions for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.

7 Handling and storage

- **Precautions for safe handling:**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
For the general occupational hygienic measures refer to Section 8.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from water.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls/personal protection

- **Components with limit values that require monitoring at the workplace:**

CAS: 1309-60-0 Lead dioxide (45%)

PEL (USA)	Long-term value: 0.05 mg/m ³ as Pb; See 29 CFR 1910.1025
REL (USA)	Long-term value: 0.05* mg/m ³ as Pb; *8-hr TWA; See Pocket Guide App. C
TLV (USA)	Long-term value: 0.05 mg/m ³ as Pb; BEI

CAS: 7439-92-1 Lead massive [particle diameter ≥ 1 mm] (25%)

PEL (USA)	Long-term value: 0.05* mg/m ³ *see 29 CFR 1910.1025
REL (USA)	Long-term value: 0.05* mg/m ³ *8-hr TWA ;See PocketGuide App.C
TLV (USA)	Long-term value: 0.05* mg/m ³ *and inorganic compds., as Pb; BEI, A3

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CAS: 7664-93-9 sulphuric acid (19.7%)

PEL (USA)	Long-term value: 1 mg/m ³
REL (USA)	Long-term value: 1 mg/m ³
TLV (USA)	Long-term value: 0.2* mg/m ³ *as thoracic fraction, A2

CAS: 65997-17-3 Glass, oxide, chemicals (2%)

TWA (USA)	Long-term value: 5* mg/m ³ *Inhalable fraction.
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CAS: 7440-31-5 Tin (0.15%)

PEL (USA)	Long-term value: 2 mg/m ³ metal
REL (USA)	Long-term value: 2 mg/m ³
TLV (USA)	Long-term value: 2* mg/m ³ metal, *inh. fraction

· Regulatory information

- PEL (USA): Guide to Occupational Exposure Values (OSHA PELs)
- REL (USA): Guide to Occupational Exposure Values (NIOSH RELs)
- TLV (USA): Guide to Occupational Exposure Values (TLV)

· Ingredients with biological limit values:
CAS: 1309-60-0 Lead dioxide

BEI (USA)	200 µg/100 ml Medium: blood Time: not critical Parameter: Lead
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CAS: 7439-92-1 Lead massive [particle diameter ≥ 1 mm]

BEI (USA)	200 µg/L Medium: blood Time: not critical Parameter: Lead
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· **Additional information:** The lists that were valid during the creation were used as basis.

· **Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure.**

· Appropriate engineering controls:

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes.
- Avoid contact with the eyes and skin.
- See Section 7 for information about design of technical facilities.

· **Individual protection measures, such as personal protective equipment**

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Hand protection:


Protective gloves

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

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Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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.

· **Eyeface protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

· **Appearance:**

Form: Solid
Color: Blue on the top and light grey on the bottom

· **Odor:** Odourless

· **Odor threshold:** Not available

· **pH-value:** Not available

· **Change in condition**

Melting point/Freezing point: Not available
Initial boiling point and boiling range: Not available

· **Flash point:** Not available

· **Flammability (solid, gas):** Not available

· **Auto-Ignition temperature:** Not available

· **Decomposition temperature:** Not available

· **Lower and upper explosion limit**

Lower: Not available
Upper: Not available

· **Vapor pressure:** Not available

· **Density:** Not available

· **Relative density:** Not available

· **Vapor density:** Not available

· **Evaporation rate:** Not available

· **Solubility in / Miscibility with**

Water: Not available

· **Partition coefficient (n-octanol/water):** Not available

· **Viscosity:**

Dynamic: Not available

Kinematic: Not available

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· **Other information** *No further relevant information available.*

10 Stability and reactivity

- **Reactivity:** *No further relevant information available.*
- **Chemical stability:** *No further relevant information available.*
- **Possibility of hazardous reactions:** *No dangerous reactions known.*
- **Conditions to avoid:** *No further relevant information available.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known.*

11 Toxicological information

- **Acute toxicity:** *Harmful if swallowed or if inhaled.*
- **LD/LC50 values that are relevant for classification:** *Not available*
- **Skin corrosion/irritation:** *Causes severe skin burns and eye damage.*
- **Serious eye damage/irritation:** *Strong irritant with the danger of severe eye injury.*
- **Respiratory or skin sensitization:** *Sensitization possible.*

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Toxic

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

1309-60-0	Lead dioxide	2A
7439-92-1	Lead massive [particle diameter ≥ 1 mm]	2B
7664-93-9	sulphuric acid	1

- **NTP (National Toxicology Program)**

1309-60-0	Lead dioxide	R
7439-92-1	Lead massive [particle diameter ≥ 1 mm]	R
7664-93-9	sulphuric acid	K

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** *No further relevant information available.*
- **Persistence and degradability:** *No further relevant information available.*
- **Bioaccumulative potential:** *No further relevant information available.*

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- **Mobility in soil:** No further relevant information available.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, IMDG, IATA	UN2800
· UN proper shipping name	
· DOT	Batteries, wet, non-spillable
· IMDG	BATTERIES, WET, NON-SPILLABLE, MARINE POLLUTANT
· IATA	BATTERIES, WET, NON-SPILLABLE
· Transport hazard class(es)	
· DOT	
· Class	8 Corrosive substances
· Label	8
· IMDG	
· Class	8 Corrosive substances
· Label	8
· IATA	
· Class	8 Corrosive substances
· Label	8
· Packing group	
· DOT, IMDG, IATA	Not applicable
· Environmental hazards:	
· Marine pollutant:	Yes Yes (DOT) Symbol (fish and tree)

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· Special precautions for user	Warning: Corrosive substances
· EMS Number:	F-A,S-B
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: No limit On cargo aircraft only: No limit
· Remarks:	Special marking with the symbol (fish and tree).
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 2800 BATTERIES, WET, NON-SPILLABLE, 8, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

· Sara

· **Section 355 (extremely hazardous substances):**

7664-93-9	sulphuric acid
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· **Section 313 (Specific toxic chemical listings):**

1309-60-0	Lead dioxide
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7439-92-1	Lead massive [particle diameter ≥ 1 mm]
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7664-93-9	sulphuric acid
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· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Proposition 65**

· **Chemicals known to cause cancer:**

1309-60-0	Lead dioxide
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7439-92-1	Lead massive [particle diameter ≥ 1 mm]
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· **Chemicals known to cause reproductive toxicity for females:**

7439-92-1	Lead massive [particle diameter ≥ 1 mm]
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· **Chemicals known to cause reproductive toxicity for males:**

7439-92-1	Lead massive [particle diameter ≥ 1 mm]
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· **Chemicals known to cause developmental toxicity:**

7439-92-1	Lead massive [particle diameter ≥ 1 mm]
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· **New Jersey Right-to-Know List:**

1309-60-0	Lead dioxide
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7439-92-1	Lead massive [particle diameter ≥ 1 mm]
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7664-93-9	sulphuric acid
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7440-31-5	Tin
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7440-70-2	Calcium
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· New Jersey Special Hazardous Substance List:		
1309-60-0	Lead dioxide	CA
7439-92-1	Lead massive [particle diameter ≥ 1 mm]	CA, TE
7664-93-9	sulphuric acid	CA, CO, R2
7440-31-5	Tin	F3
7440-70-2	Calcium	R2
· Pennsylvania Right-to-Know List:		
7439-92-1	Lead massive [particle diameter ≥ 1 mm]	
7664-93-9	sulphuric acid	
7440-31-5	Tin	
7440-70-2	Calcium	
· Pennsylvania Special Hazardous Substance List:		
7439-92-1	Lead massive [particle diameter ≥ 1 mm]	E
7664-93-9	sulphuric acid	E
· Carcinogenity categories		
· EPA (Environmental Protection Agency)		
1309-60-0	Lead dioxide	B2
7439-92-1	Lead massive [particle diameter ≥ 1 mm]	B2
· TLV (Threshold Limit Value)		
1309-60-0	Lead dioxide	A3
7439-92-1	Lead massive [particle diameter ≥ 1 mm]	A3
7664-93-9	sulphuric acid	A2
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
None of the ingredients is listed.		
· National regulations:		
· Information about limitation of use:		
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.		

16 Other information

· Relevant hazard statements

H261 In contact with water releases flammable gas.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled.

H350 May cause cancer.

H351 Suspected of causing cancer.

H360 May damage fertility or the unborn child.

H362 May cause harm to breast-fed children.

H373 May cause damage to organs through prolonged or repeated exposure.

The contents and format of this SDS are in accordance with 29 CFR 1910.1200.

DISCLAIMER OF LIABILITY

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used

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as a component in another product, this SDS information may not be applicable.

· **Date of preparation / last revision** 11/13/2024

· **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

Substances and mixtures which, in contact with water, emit flammable gases 2: Substances and mixtures which in contact with water emit flammable gases – Category 2

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Skin Corrosion 1A: Skin corrosion/irritation – Category 1A

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Carcinogenicity 1A: Carcinogenicity – Category 1A

Carcinogenicity 1B: Carcinogenicity – Category 1B

Carcinogenicity 2: Carcinogenicity – Category 2

Toxic to Reproduction 1A: Reproductive toxicity – Category 1A

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

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USA