

# Material Safety Data Sheet



Date Issued: 17/1/2014

## 1. Identification of the substance

Product name: Valve Regulated Lead Acid, Absorbed Glass Mat Battery  
Trade name: Sealed Lead acid battery  
Supplier: Lion Batteries (Wholesale) Pty Ltd  
Emergency Telephone: (02) 9896 1588 Scott Jurd

## 2. Composition / Ingredient Data

Hazardous Components Chemical Identity	CAS Number	OSHA PEL	ACGIH TLV	Percent By Weight	EC Number	Average
Lead	7439-92-1	50 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>	45-55%	231-100-4	50%
Sulfuric Acid	7664-93-9	100 µg/m <sup>3</sup>	1.00 mg/m <sup>3</sup>	19-25%	231-639-5	22%
Lead Oxide	1309-60-0	50 µg/m <sup>3</sup>	500 µg/m <sup>3</sup>	19-23%	215-174-5	21%

	Risk Phrases	CHIP Symbols	Safety Phrases
Sulphuric Acid	R61,62,20/22,33		S1/2,S26,S30,S45
Lead Oxide	R35		None

## 3. Hazards Identification

Odour: Not applicable  
Appearance: Article as described above  
Weight High Density/ Good lifting technique required

Hazards refer to internal component, i.e. lead and sulphuric acid

Contact with eyes: Causes irritation  
Contact with skin: May cause dermatitis  
Inhalation: May cause irritation  
Ingestion: Can cause damage to the kidneys

## 4. First Aid Measures

### *Contact with skin:*

Remove contaminated clothing immediately and drench affected skin with plenty of water, then wash with soap and water.

### *Contact with eyes:*

If substance has got into eyes, immediately wash out with plenty of water for at least 15 minutes.

**Seek immediate medical attention.**

### *Ingestion:*

Do not induce vomiting.

**Seek immediate medical attention.**

### *Inhalation:*

Remove patient to fresh air.

Seek medical attention if irritation persists.

## 5. Fire-Fighting Measures

- Auto-ignition point (Hydrogen) 580° C at 760 mm Hg
- Wear positive-pressure breathing apparatus
- In case of fire use foam, carbon dioxide or dry agent (S43)
- Flash point Hydrogen 259° C
- Flammable Limits in air, Lower 4.1%
- % by 3/4 vol. (Hydrogen)

### **Fire/explosion**

Hydrogen and oxygen gases are produced in the cells during normal battery operation (hydrogen is flammable and oxygen supports combustion).

## 6. Accidental Release Measures

### *Immediate Actions:*

- Shut off all ignition sources

### *Clean Up Actions:*

- Neutralise with soda ash
- Place in appropriate container
- Ventilate area
- Do not empty into drains (S29)

## 7. Handling and Storage

Under normal conditions of battery use, internal components will not present a health hazard

### *Handling:*

- Keep away from heat and sources of ignition

- Wash hands thoroughly after use
- Avoid sparks
- Avoid contact with metal jewellery and watches etc.
- **Do Not Remove Vent Caps**
- Do not double stack industrial batteries, it may cause damage.

*Storage:*

- Keep in cool and dry & Protect from heat.
- Store lead acid batteries with adequate ventilation.
- Room ventilation is required for batteries utilised for standby power generation.
- **Never re-charge batteries in an unventilated, enclosed space.**

## 8. Exposure Controls / Personal Protection

*Personal protection:*

- Wear safety shoes with toe protector.
- Where internal components are liberated use rubber or neoprene boots.
- Wear goggles/safety glasses giving complete eye protection.
- Respiratory protection may be required under exceptional circumstances when excessive air contamination exists.
- Wear PVC mitts, gloves or gauntlets.

*Exposure Limits:*

- Lead OES / LTEL - ppm 0.15 mg/m<sup>3</sup>
- Lead Dioxide OES / LTEL - ppm 0.15 mg/m<sup>3</sup>

## 9. Physical and Chemical Properties

Odour:	Not applicable.
Appearance:	Sealed Valve Regulated lead Acid Battery
State under normal temp:	Solid
Flash point (Hydrogen):	259° C

### Internal components

pH - (Sulphuric acid):	1.3 .
Boiling point: (at 760 mm/Hg)	Battery Electrolyte 110° C, Lead 1755° C
Melting point:	Lead 327.4° C
Vapour pressure:	11.7
Vapour density:	Battery Electrolyte 3.4, (air =1)
Specific gravity:	Battery Electrolyte 1.3 g/cm <sup>3</sup> . (water =1)
Auto-ignition point:	580° deg C at 760 mm/Hg.
Water solubility:	Battery Electrolyte is 100% soluble in water

## 10. Stability and Reactivity

VRLA Batteries are considered stable at normal conditions.

- Keep away from heat and sources of ignition.
- Incompatible with reducing agents. Incompatible with organic agents.
- Decomposition products may include hydrogen.
- Decomposition products may include sulphur oxides.

## **11. Toxicological Information**

- Danger of cumulative effects. (R33)
- May cause severe irritation.
- May cause gastro-intestinal disturbances.
- Can cause damage to the mucous membranes.

## **12. Ecological Information**

Ecotoxicology - no information available

## **13. Disposal Considerations**

*Classification:*

- This material and/or its container must be disposed of as hazardous waste.

*Disposal considerations:*

- Do not discharge into drains or the environment, dispose to an authorised waste collection point.

## **14. Transport Information**

We hereby certify that the manufacturer of the Lion Batteries range of Maintenance Free Rechargeable Sealed Lead Acid batteries conform to the UN2800 classification as "Batteries, Non- Spillable, and electric storage" as a result of passing the Vibration and Pressure Differential Test described in DOT [49 CFR 173.159(d) and IATA/ICAO [Special Provision A67].

The manufacturer of Lion Batteries, having met the related conditions are EXEMPT from hazardous goods regulations for the purpose of transportation by DOT, and IATA/ICAO, and therefore are unrestricted for transportation by any means.


## **15. Regulatory information**

Classification and labeling. Not classified as hazardous for supply

## **16. Other Information**

Under normal conditions of battery use, internal components will not present a health hazard. The information contained in this Safety Data Sheet is provided for battery electrolyte (acid) and lead, for exposure that may occur during battery production or container breakage or under extreme heat conditions such as fire.

Tested as per IMDG Amendment. 34-08, special provision 238 "a" and "b", Comply.



This Safety Data Sheet and the information therein does not constitute the user's own assessment of work place risk as required by other Health & Safety legislation.

### **Disclaimer**

While every effort has been made to ensure the accuracy of the information, the information is based on data believed by Lion Batteries (Wholesale) Pty Ltd to be accurate at the time of writing this Material Safety Data Sheet, but is subject to change without notice. Exact formulations are proprietary and therefore confidential. Precise product composition will not be disclosed except as in accordance with relevant laws and regulations. The information is given in good faith but Lion Batteries (Wholesale) Pty Ltd gives no warranty, expressed or implied of any kind whatsoever as to its accuracy, completeness or otherwise. Under no circumstances shall Lion Batteries (Wholesale) Pty Ltd be responsible for damages of any nature, directly or indirectly arising out of the materials referred to or the publication, use or reliance upon the data provided.