

SLA MATERIAL SAFETY DATA SHEET (MSDS)

IDENTIFICATION OF THE SUBSTANCE

Product name: Valve Regulated Non-spillage, Lead Acid, Absorbed Glass Mat Battery
Trade Name: Valve Regulated Lead Acid battery

Manufacturers Name: **DOSS**

Manufacturers Address: 562 Spencer Street, West Melbourne, Victoria, Australia 3003

E-mail: sales@radioparts.com.au

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Responsible Persons: QA Representative, Managing Director

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 ³	50 µg/m ³	45-55%	231-100-4	50%
Sulfuric Acid	7664-93-9	100 µg /m ³	1.00 mg/m ³	19-25%	231-639-5	22%
Lead Oxide	1309-60-0	50 µg/m ³	50 0µg/m ³	19-23%	215-174-5	21%

	RISK PHRASES	SAFETY PHRASES
Sulfuric Acid	R61,62,20/22,33	S1/2,S26,S30,S45
Lead Oxide	R35	None

HAZARDS IDENTIFICATION

Odour: *Not applicable*

Appearance: Article as described above

Weight High Density/*Good lifting technique required*

DOSS 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*

FIRST AID MEASURES

Contact with skin: Remove contaminated clothing immediately and drench affected skin with plenty of water, then 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.**

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

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)*

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 jewelry and watches etc.*
 - ✗ **Do not** *remove vent caps*
 - ✗ **Do not** *double stack industrial batteries, it maybe cause damage.*

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STORAGE

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

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 LIMITED

Lead OES/LTEL – ppm 0.15/m³

Lead Dioxide OES/ LTEL – pmm 0.15mg/ m³

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: Battery Electrolyte 110°C, Lead 1755°C (at 760 mm/Hg)

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/cm³. (water = 1)

Auto-ignition point: 580°C at 760 mm/Hg.

Water solubility: Battery Electrolyte is 100% soluble in water

STABILITY AND REACTIVITY

VRLA Batteries are considered stable at normal conditions.

Keep away from heat and sources of ignition.

Incompatible with reducing agent .

Incompatible with organic agents.

Decomposition products may include hydrogen.

Decomposition products may include sulphur oxides.

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TOXICOLOGICAL INFORMATION

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

ECOLOGICAL INFORMATION

Eco toxicology - *no information available*

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 authorized waste collection points.

TRANSPORT INFORMATION.

We hereby certify that the DOSS range of Maintenance Free Rechargeable Sealed Lead Acid batteries conform to the <International Maritime Dangerous Goods Transport Rules> (ST/SG/AC.10/Rev.14).NO.3.3 - 238.

DOSS 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.

REGULATORY INFORMATION

Classification and labeling, Not classified as hazardous for supply.

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 Amdt. 31-02, special provision 238 "a" and " b", comply.

This Safety Data sheet and the information there in does not constitute the user's own assessment of work place risk as required by other Health & Safety Legislation.