



## EXIDE SEALED MAINTENANCE FREE LEAD-ACID BATTERIES

Chemwatch GHS Safety Data Sheet  
Issue Date: 30-May-2013  
C554SP

CHEMWATCH 4854-29  
Version No:2.1.1.1  
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### Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT NAME

EXIDE SEALED MAINTENANCE FREE LEAD-ACID BATTERIES

#### PROPER SHIPPING NAME

BATTERIES, WET, NONSPILLABLE, electric storage

#### PRODUCT USE

Battery.

NOTE: The chemical hazards relate to the released contents.

Undamaged sealed lithium batteries normally present a low hazard, however damaged batteries may release highly corrosive and toxic contents.

Disassembly, abuse or destruction of battery cell may cause violent explosion with scattering of contents.

Heating above 85 deg C may cause bursting with release of contents.

Heating above 85 deg C will melt lithium with severe fire and explosion hazard.

#### SUPPLIER

Company: Marshall Power

Address:

Peachey Road

Elizabeth West

SA, 5113

Australia

Telephone: +61 8 8307 4444

Emergency Tel: **1800 039 008 (24 hrs)**

Emergency Tel: **+61 3 9573 3112**

Fax: +61 8 8252 1370

### Section 2 - HAZARDS IDENTIFICATION

#### GHS Classification

Acute Toxicity Category 4

Acute Toxicity Category 4

Chronic Aquatic Hazard Category 1

Metal Corrosion Category 1

Reproductive Toxicity Category 1A

Reproductive Toxicity Category 2

Serious Eye Damage Category 1

Skin Corrosion/Irritation Category 1C

STOT - RE Category 2



#### EMERGENCY OVERVIEW

#### HAZARD

DANGER

Determined by Chemwatch using GHS criteria

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

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Section 2 - HAZARDS IDENTIFICATION

H332	Harmful if inhaled.
H360	May damage fertility or the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

### PRECAUTIONARY STATEMENTS

#### Prevention

Code	Phrase
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original container.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
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.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.

#### Response

Code	Phrase
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get medical advice/attention if you feel unwell.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.

#### Storage

Code	Phrase
P405	Store locked up.
P406	Store in corrosive resistant container or with a resistant inner liner.

#### Disposal

Code	Phrase
P501	Dispose of contents/container to ...

### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
Sealed metal containers with electrochemical contents typically,		
lead	7439-92-1	65-75
sulfuric acid	7664-93-9	20
tin	7440-31-5	<0.5
calcium	7440-70-2	<0.1
fiberglass separator		5
case material as;		
styrene/ butadiene/ acrylonitrile copolymer	9003-56-9	5

### Section 4 - FIRST AID MEASURES

#### SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and

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Section 4 - FIRST AID MEASURES

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prevent aspiration.

### EYE

- If this product comes in contact with the eyes:
  - Immediately hold eyelids apart and flush the eye continuously with running water.
  - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
  - Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
  - Transport to hospital or doctor without delay.

### SKIN

- If skin or hair contact occurs:
  - Immediately flush body and clothes with large amounts of water, using safety shower if available.
  - Quickly remove all contaminated clothing, including footwear.
  - Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
  - Transport to hospital, or doctor.

### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

### NOTES TO PHYSICIAN

- Treat symptomatically.
- For acute or short term repeated exposures to strong acids:
- Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
  - Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling.
  - Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.
  - Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the desiccating action of the acid on proteins in specific tissues.
  - Gastric acids solubilise lead and its salts and lead absorption occurs in the small bowel.
  - Particles of less than 1 µm diameter are substantially absorbed by the alveoli following inhalation.
  - Lead is distributed to the red blood cells and has a half-life of 35 days. It is subsequently redistributed to soft tissue & bone-stores or eliminated. The kidney accounts for 75% of daily lead loss; integumentary and alimentary losses account for the remainder.
  - Neurasthenic symptoms are the most common symptoms of intoxication. Lead toxicity produces a classic motor neuropathy. Acute encephalopathy appears infrequently in adults. Diazepam is the best drug for seizures.

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## Section 5 - FIRE FIGHTING MEASURES

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### EXTINGUISHING MEDIA

- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
  - Wear breathing apparatus plus protective gloves in the event of a fire.
  - Prevent, by any means available, spillage from entering drains or water courses.
  - Use fire fighting procedures suitable for surrounding area.
- Slight hazard when exposed to heat, flame and oxidisers.

### FIRE/EXPLOSION HAZARD

- Non combustible.
  - Not considered a significant fire risk, however containers may burn.
- Decomposition may produce toxic fumes of: sulfur oxides (SO<sub>x</sub>), metal oxides.

### FIRE INCOMPATIBILITY

- Keep dry.
  - NOTE: May develop pressure in containers; open carefully. Vent periodically.
- None known.

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### Section 6 - ACCIDENTAL RELEASE MEASURES

#### MINOR SPILLS

- Clean up all spills immediately.
- Secure load if safe to do so.
- Bundle/collect recoverable product.
- Collect remaining material in containers with covers for disposal.

#### MAJOR SPILLS

- Clean up all spills immediately.
- Wear protective clothing, safety glasses, dust mask, gloves.
- Secure load if safe to do so. Bundle/collect recoverable product.
- Use dry clean up procedures and avoid generating dust.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

### Section 7 - HANDLING AND STORAGE

#### PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

#### SUITABLE CONTAINER

- Lined metal can, lined metal pail/ can.
- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer.

#### STORAGE INCOMPATIBILITY

- Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.
- Keep dry.
- NOTE: May develop pressure in containers; open carefully. Vent periodically.

#### STORAGE REQUIREMENTS

- DO NOT store near acids, or oxidising agents.
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### EXPOSURE CONTROLS

Source	Material	TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>
Australia Exposure Standards	Exide Sealed Maintenance Free Lead- Acid Batteries (Lead, inorganic dusts & fumes (as Pb))	0.15	
Australia Exposure Standards	Exide Sealed Maintenance Free Lead- Acid Batteries (Sulphuric acid)	1	3
Australia Exposure Standards	Exide Sealed Maintenance Free Lead- Acid Batteries (Tin, metal)	2	

The following materials had no OELs on our records

- calcium:
- styrene/ butadiene/ acrylonitrile copolymer:

CAS:7440- 70- 2  
CAS:9003- 56- 9

#### MATERIAL DATA

CALCIUM:

TIN:

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### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

■ It is the goal of the ACGIH (and other Agencies) to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace.

At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience).

NOTE: The ACGIH occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.

CALCIUM:

SULFURIC ACID:

■ Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat.

Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations.

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■ None assigned. Refer to individual constituents.

LEAD:

■ The lead concentration in air is to be maintained so that the lead concentration in workers' blood remains below 0.060 mg/100 g of whole blood. The recommended TLV-TWA has been derived following a review of reports of adverse effects on reproduction, blood-pressure and other end-points of toxicity.

SULFURIC ACID:

■ NOTE: Detector tubes for sulfuric acid, measuring in excess of 1 mg/m<sup>3</sup>, are commercially available.

Based on controlled inhalation studies the TLV-TWA is thought to be protective against the significant risk of pulmonary irritation and incorporates a margin of safety so as to prevent injury to the skin and teeth seen in battery workers acclimatised to workplace concentrations of 16 mg/m<sup>3</sup>.

TIN:

■ A TLV-TWA is recommended so as to minimise the risk of stannosis. The STEL (4.0 mg/m<sup>3</sup>) has been eliminated (since 1986) so that additional toxicological data and industrial hygiene experience may become available to provide a better base for quantifying on a toxicological basis what the STEL should in fact be.

STYRENE/ BUTADIENE/ ACRYLONITRILE COPOLYMER:

■ For 1,3-butadiene:

Odour Threshold Value: 0.45 ppm (detection), 1.1 ppm (recognition)

Exposure at or below the TLV-TWA is thought to provide significant protection for workers against systemic toxicity including cancer.

US rubber workers reached an accord in 1996 to limit exposure to 1 ppm with a 15-minute, short-term limit of 5 ppm.

Odour Safety Factor(OSF)

OSF=1.3 ("1,3-BUTADIENE").

for styrene:

Odour Threshold: 0.017 to 1.9 with a geometric average threshold of 0.32 ppm.

NOTE:Detector tubes measuring styrene at greater than 10 ppm are available.</p></div>

Odour Threshold Value for acrylonitrile: 1.6 ppm (detection), 22 ppm (recognition)

Odour threshold level 22 ppm (recognition) is well above exposure standard, hence odour gives no warning, rather it indicates severe overexposure.

NOTE: Detector tubes, for acrylonitrile, measuring concentrations in excess of 1ppm, are commercially available.

The recommended TLV-TWA takes account of the consistent production of tumours in rats and the suspicion of cancer in humans.

## PERSONAL PROTECTION

### RESPIRATOR

•Type E-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

### EYE

■ None under normal operating conditions.

OTHERWISE:.

• Safety glasses with side shields.

• Chemical goggles.

• Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

### HANDS/FEET

• Elbow length PVC gloves.

Wear safety footwear.

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### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### OTHER

■ No special equipment needed when handling small quantities.

#### OTHERWISE:

- Overalls.
- Barrier cream.
- Eyewash unit.

#### ENGINEERING CONTROLS

■ Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

#### APPEARANCE

Solid; insoluble in water.

#### PHYSICAL PROPERTIES

Does not mix with water.

Corrosive.

Acid.

State	Manufactured	Molecular Weight	Not Applicable
Melting Range (°C)	Not Applicable	Viscosity	Not Applicable
Boiling Range (°C)	Not Applicable	Solubility in water (g/L)	Immiscible
Flash Point (°C)	Not Applicable	pH (1% solution)	Not Applicable
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Applicable
Autoignition Temp (°C)	Not Applicable	Vapour Pressure (kPa)	Not Applicable
Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	Not Available
Lower Explosive Limit (%)	Not Applicable	Relative Vapour Density (air=1)	Not Applicable
Volatile Component (%vol)	Not Applicable	Evaporation Rate	Not Applicable

### Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

#### CONDITIONS CONTRIBUTING TO INSTABILITY

No data for this material.

*For incompatible materials - refer to Section 7 - Handling and Storage.*

### Section 11 - TOXICOLOGICAL INFORMATION

#### Health hazard summary table:

Acute toxicity	Acute Tox. (inhal) 4
	Acute Tox. (oral) 4
Skin corrosion/irritation	Skin Corr. 1 C
Serious eye damage/irritation	Eye Dam. 1
Respiratory or skin sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Not applicable
Reproductive toxicity	Repr. 1A
	Repr. 2
STOT- single exposure	Not applicable
STOT- repeated exposure	STOT RE 2
Aspiration hazard	Not applicable

#### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

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### Section 11 - TOXICOLOGICAL INFORMATION

#### SWALLOWED

- Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
- Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident.

#### EYE

- If applied to the eyes, this material causes severe eye damage.
- Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and completely.

#### SKIN

- Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue.
- Open cuts, abraded or irritated skin should not be exposed to this material.
- Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

#### INHALED

- Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness.
- There was an fatal instance of exposure to thionyl chloride where the exposed person experienced severe breathing distress and fluid build-up in the lung. The concentration of sulfur dioxide in the room was extremely high at 1.
- Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.

#### CHRONIC HEALTH EFFECTS

- Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs. Chronic exposure may inflame the skin or conjunctiva. Substance accumulation, in the human body, is likely and may cause some concern following repeated or long-term occupational exposure. Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. This has been demonstrated via both short- and long-term experimentation. Ample evidence exists that developmental disorders are directly caused by human exposure to the material. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Occupational exposure to 1,3-butadiene, enhanced or caused cancer at different body sites with significant associated mortality, in animal testing and on the basis of human data. The predominant tumours are lymphomas, cancers of the testes, stomach and intestines, breast, thyroid, pancreas, throat and womb. Lead, in large amounts, can affect the blood, nervous system, heart, glands, immune system and digestive system. Anaemia may occur. If untreated muscles may become paralysed, and there may be brain damage. Symptoms include joint and muscle pain, weakness in the back of the forearm and wrist and in the shin muscles, headaches, dizziness, abdominal pain, diarrhoea or constipation, nausea, vomiting, blue line on gums, sleep disturbance and a metallic taste in the mouth. The pressure in the brain may increase with high doses, and cause brain damage, coma, and death. Early signs include loss of appetite and weight, constipation, tiredness and irritability, headache, weakness. Later there may be vomiting, nervousness, and muscle pains in the arms and legs. Serious cases cause severe vomiting, inco-ordination, stupor, permanent eye damage, high blood pressure, multiple nerve disorders of the head resulting in paralysis and loss of reflexes, delirium, convulsions and coma. The kidneys may become irreversibly damaged, and the nervous system may become affected causing mental retardation, cerebral palsy, and jerks and seizures.

#### TOXICITY AND IRRITATION

- No significant acute toxicological data identified in literature search.

#### CARCINOGEN

lead	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B	Possibly carcinogenic to humans
lead	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	1	Carcinogenic to humans
sulfuric acid	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	1	Carcinogenic to humans

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**Section 11 - TOXICOLOGICAL INFORMATION**

styrene/ butadiene/ acrylonitrile copolymer	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	3	Not classifiable as to its carcinogenicity to humans
<b>REPROTOXIN</b>				
lead	ILO Chemicals in the electronics industry that have toxic effects on reproduction		Reduced fertility or sterility	H A si
<b>SKIN</b>				
sulfuric acid	GESAMP/EHS Composite List - GESAMP Hazard Profiles	D1: skin irritation/corrosion	3C	
tin	Australia Exposure Standards - Skin	Notes	Sk	

**Section 12 - ECOLOGICAL INFORMATION**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 This material and its container must be disposed of as hazardous waste.  
 Avoid release to the environment.  
 Refer to special instructions/ safety data sheets.

**Ecotoxicity**

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
lead	No Data Available	No Data Available	LOW	No Data Available
sulfuric acid	No Data Available	No Data Available	LOW	No Data Available
tin	No Data Available	No Data Available	No Data Available	No Data Available
calcium	No Data Available	No Data Available	No Data Available	No Data Available
styrene/ butadiene/ acrylonitrile copolymer	No Data Available	No Data Available	No Data Available	No Data Available

**Section 13 - DISPOSAL CONSIDERATIONS**

- Containers may still present a chemical hazard/ danger when empty.
  - Return to supplier for reuse/ recycling if possible.
- Otherwise:
- If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
  - Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

**Section 14 - TRANSPORTATION INFORMATION**



Labels Required: MISCELLANEOUS

**HAZCHEM:**  
 4W (ADG7)

ADG7:			
Class or Division:	8	Subsidiary Risk:	None
UN No.:	2800	Packing Group:	None
Special Provision:	238	Limited Quantity:	1 L



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**Section 14 - TRANSPORTATION INFORMATION**

Portable Tanks & Bulk Containers - Instruction:	None	Portable Tanks & Bulk Containers - Special Provision:	None
Packagings & IBCs - Packing Instruction:	P003	Packagings & IBCs - Special Packing Provision:	PP16

Name and Description: BATTERIES, WET, NON-SPILLABLE, electric storage

**Air Transport IATA:**

ICAO/IATA Class:	8	ICAO/IATA Subrisk:	None
UN/ID Number:	2800	Packing Group:	-
Special provisions:	A48		
Cargo Only			
Packing Instructions:	872	Maximum Qty/Pack:	No Limit
Passenger and Cargo			
Packing Instructions:	872	Maximum Qty/Pack:	No Limit
Passenger and Cargo			
Limited Quantity			
Packing Instructions:	Forbidden	Maximum Qty/Pack:	Forbidden

Shipping name: BATTERIES, WET, NONSPILLABLE, electric storage

**Maritime Transport IMDG:**

IMDG Class:	8	IMDG Subrisk:	None
UN Number:	2800	Packing Group:	None
EMS Number:	F- A, S- B	Special provisions:	29 238
Limited Quantities:	1 L	Marine Pollutant:	Yes

Shipping name: BATTERIES, WET, NONSPILLABLE, electric storage

**Section 15 - REGULATORY INFORMATION**

**Indications of Danger:**

C	Corrosive
N	Dangerous for the environment
T	Toxic

POISONS SCHEDULE None

**REGULATIONS**

**Regulations for ingredients**

**lead (CAS: 7439-92-1) is found on the following regulatory lists;**

"Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (AQUA/1 to 6 - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (Domestic water supply - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (IRRIG - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (STOCK - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm - Domestic water supply quality", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (Aquatic habitat)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (IRRIG)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (STOCK)", "Australia - New South Wales - Work Health and Safety Regulation 2011 Restricted hazardous chemicals", "Australia - Queensland Work Health and Safety Regulation - Restricted hazardous chemicals", "Australia - South Australia - Work Health and Safety Regulations 2012 - Restricted hazardous chemicals", "Australia - Western Australia Hazardous Substances Prohibited for Specified Uses or Methods of Handling", "Australia Criteria for the export and import of used electronic equipment - Hazardous constituents", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Exposure Standards", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix I", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4", "Australia Work Health and Safety Regulations 2011 - Restricted hazardous chemicals", "FisherTransport Information", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution - Norway", "OSPAR National List of Candidates for Substitution - United Kingdom", "Sigma-Aldrich Transport Information", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments", "WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of health significance in drinking-water"

**sulfuric acid (CAS: 7664-93-9) is found on the following regulatory lists;**

"Australia Council of Australian Governments (COAG) Chemicals of Security Concern", "Australia Customs (Prohibited Exports) Regulations 1958 - Schedule 9 Precursor substances - Part 2", "Australia Exposure Standards", "Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions", "Australia Hazardous Substances", "Australia High Volume Industrial Chemical List (HVICL)", "Australia Illicit Drug Reagents/Essential Chemicals - Category III", "Australia Inventory of

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### Section 15 - REGULATORY INFORMATION

Chemical Substances (AICS)", "Australia National Pollutant Inventory", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6", "FisherTransport Information", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Numbering System for Food Additives", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution - United Kingdom", "Sigma-AldrichTransport Information", "United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances - Table II", "United Nations List of Precursors and Chemicals Frequently used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control (Red List) - Table II"

#### **Tin Powders (CAS: 7440-31-5) is found on the following regulatory lists;**

"Australia - New South Wales - Work Health and Safety Regulation 2011 Restricted hazardous chemicals", "Australia - Queensland Work Health and Safety Regulation - Restricted hazardous chemicals", "Australia - South Australia - Work Health and Safety Regulations 2012 - Restricted hazardous chemicals", "Australia - Western Australia Hazardous Substances Prohibited for Specified Uses or Methods of Handling", "Australia Drinking Water Guideline Values For Physical and Chemical Characteristics", "Australia Exposure Standards", "Australia Hazardous Substances", "Australia Inventory of Chemical Substances (AICS)", "Australia Work Health and Safety Regulations 2011 - Restricted hazardous chemicals", "FisherTransport Information", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments"

#### **calcium (CAS: 7440-70-2) is found on the following regulatory lists;**

"Acros Transport Information", "Australia - Australian Capital Territory - Environment Protection Regulation: Ambient environmental standards (STOCK - inorganic chemicals)", "Australia - Australian Capital Territory - Environment Protection Regulation: Pollutants entering waterways taken to cause environmental harm (STOCK)", "Australia - Victoria Drugs, Poisons and Controlled Substances (Precursor Chemicals) Regs 2007 - Schedule 1 - Precursor Chemicals and Quantities", "Australia Hazardous Substances", "Australia Illicit Drug Precursors/Reagents - Category II", "Australia Inventory of Chemical Substances (AICS)", "OECD List of High Production Volume (HPV) Chemicals", "Sigma-AldrichTransport Information"

#### **styrene/ butadiene/ acrylonitrile copolymer (CAS: 9003-56-9) is found on the following regulatory lists;**

"Australia Inventory of Chemical Substances (AICS)", "Australia National Pollutant Inventory", "FisherTransport Information", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List Passenger and Cargo Aircraft", "Sigma-AldrichTransport Information"

#### **No data for Exide Sealed Maintenance Free Lead-Acid Batteries (CW: 4854-29)**

### Section 16 - OTHER INFORMATION

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: [www.chemwatch.net/references](http://www.chemwatch.net/references).

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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