

Material Safety Data Sheet



WET LEAD ACID STORAGE BATTERIES

Infosafe

Issue Date April 2005 **Status** ISSUED by DJB

Classified as hazardous according to criteria of NOHSC

COMPANY DETAILS

| | |
|--------------------------|---|
| Company Name | Battery Energy Power Solutions Pty Ltd (ABN 83 003 325 139) |
| Address | 96 Fairfield Street FAIRFIELD NSW 2165 |
| Emergency Tel. | 1800 819 829 |
| Tel/Fax | Tel: (02) 9681 3633 Fax: (02) 9632 4622 |
| Other Information | Victorian Branch 21 Aristoc Road GLEN WAVERLEY VIC 3150 Emergency Tel: 1800 819 829 Tel: (03) 9550 1892 Fax: (03) 9560 3008 Queensland Branch 54 Jephson Street TOOWONG QLD 4066 Emergency Tel: 1800 819 829 Tel: (07) 3371 1622 Fax: (07) 3371 1655 |

MSDS: WET LEAD ACID STORAGE BATTERIES

IDENTIFICATION

Product Name Enerlyte and Suncycle
Proper Shipping Name Enerlyte and Suncycle
Manufacturer's Code As listed below

Physical Details of Batteries

| B.E. Classification | Telecom Classification | Dimensions | | | Weight Kgs | Weight Acid/Cell |
|---------------------|------------------------|------------|-----|-----|------------|------------------|
| | | L | W | H | | |
| Enerlyte | | | | | | |
| 6V57 | | 285 | 184 | 286 | 23.0 | 3.5 |
| 6V115 | 177/2 | 190 | 286 | 286 | 32.7 | 3.1 |
| 6V140HR | 177/9 and 23 | 190 | 286 | 290 | 34.0 | 3.1 |
| 2V225 | 177/6 | 190 | 184 | 286 | 22.5 | 6.7 |
| 2V250 | | 190 | 197 | 286 | 23.5 | 6.5 |
| 2V300HR | 177/26 | 190 | 184 | 290 | 23.5 | 6.3 |
| 2V310 | | 190 | 276 | 286 | 30.3 | 9.7 |
| 2V360 | | 190 | 276 | 286 | 32.8 | 9.5 |
| 2V550 | 177/4 | 190 | 292 | 482 | 59.5 | 16.1 |
| 2V660 | | 190 | 292 | 482 | 64.3 | 15.1 |
| 2V715 | | 190 | 292 | 482 | 66.7 | 14.7 |
| 2V1160 | | 375 | 282 | 800 | 125.0 | 26.5 |
| 2V1690 | | 375 | 358 | 800 | 180.0 | 41.5 |
| 2V2400 | 177/16:177/NS | 375 | 486 | 800 | 245.0 | 59.5 |
| 2V3400 | 177/18:177/NS | 375 | 641 | 800 | 350.0 | 86.0 |

| B.E. Classification | Telecom Classification | Dimensions | | | Weight Kgs | Weight Acid/Cell |
|---------------------|------------------------|------------|-----|-----|------------|------------------|
| | | L | W | H | | |
| Suncycle | | | | | | |
| 3AS/PS190 | 177/182 | 190 | 286 | 286 | 29.0 | 3.2 |
| AS/PS380/450 | 177/183 | 190 | 184 | 286 | 21.0 | 6.6 |
| AS580/620 | | 190 | 276 | 286 | 32.0 | 9.7 |
| AS 620/650 | | 166 | 206 | 500 | 37.5 | 10.4 |
| AS/PS700/770 | 177/188 | 190 | 292 | 482 | 50.0 | 18.2 |
| AS/PS920 | | 190 | 292 | 482 | 56.0 | 16.8 |
| AS/PS1100 | 177/184 | 190 | 292 | 482 | 59.5 | 16.0 |

- This is the total weight of acid in the cell. The amount of free acid which would leak on spillage or destruction of the container would be around one-third of this.

The 6V batteries acid weight are calculated per cell. Multiply by three to obtain the 6V battery weight.

- HEIGHT INCLUDES CELL BASE.

UN Number 2794
DG Class Class 8
Packing Group
Hazchem Code 4Y (black on white) E
Poisons
Schedule Not Scheduled
Product Use Wet lead acid batteries for use in standby and solar/remote area applications.

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Physical Data

| | |
|--|--|
| Boiling Point | N/A |
| Vapour Pressure | N/A |
| Vapour Density | N/A |
| Solubility In Water | N/A |
| Appearance and Odour | 1240 + 5kg/m ³ (Note: Suncycle batteries for remote areas can be supplied at 1220 and HR products at 1265±5). |
| Percentage Volatile by Volume | N/A |
| Evaporation Rate | N/A |

Flammability Data

| | |
|---|--|
| Flashpoint | N/A |
| Flammable Limits | Hydrogen Lower explosive limit 4% Upper explosive limit 74.2% |
| Unusual Fire & Explosion Hazards | Will generate hydrogen and sulphuric acid mist on overcharge. Styrene acrylonitrile (case and cover material) will give off copious clouds of black toxic smoke when ignited in a major fire. |

Ingredients

| Ingredients Chemical Entity (of grids) | %by Weight | TWA's (mg/m³) | CAS No. |
|---|-----------------------|-------------------------------------|----------------|
| Lead (or compounds) | 70-75% | 0.5 | |
| Antimony | 0-2% | | |
| Tin | 0.2 | | |
| Selenium | 0.02 | | |
| Arsenic | 0.2 | | |
| Copper | 0.1 | | |
| Sulphuric Acid | 20-30% | 1 | 7664939 |
| Plastic battery case (styrene acrylonitrile) | 3-8% | | |

HEALTH HAZARD INFORMATION

Health Effects

| | |
|----------------|---|
| Acute – | There is no possibility of exposure to lead, etc. unless the battery is destroyed. Sulphuric acid mist causes coughing and will burn eyes and skin. |
|----------------|---|

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First Aid

| | |
|---------------------|--|
| Swallowed | Drink copious amounts of water |
| Acute – Eye | Wash immediately with water for 15 minutes – call a doctor |
| Acute – Skin | Wash immediately with water |

PRECAUTIONS FOR USE

Personal Protection

| | |
|----------------------------|---|
| Personal Protection | Acid resistant clothing, made with Neoprene or PVC is recommended, including gloves and aprons. Splash-proof chemical safety goggles or a face shield should be worn for eye and face protection when working with cells. Appropriate respiratory protection should be worn when mist (e.g. following excessive overcharge) exceeds permissible limits. |
|----------------------------|---|

SAFE HANDLING INFORMATION

Storage and Transport

| | |
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| Storage Precautions | Keep inside a well ventilated building at moderate temperatures. |
|----------------------------|--|

| | |
|---------------------------|--|
| Transport Handling | During transport the batteries are kept in wooden or cardboard/polystyrene packaging. Considerable care should be exercised when handling the batteries due to their weight and the relative fragility of the case. When lifting individual cells, the plastic sleeves, if supplied, should always be used. Cells must NOT be lifted by their terminals. |
|---------------------------|--|

Spills and Disposal

| | |
|------------------------------------|--|
| Spills & Leaks Disposal | Wash with water and neutralize with sodium carbonate or bicarbonate. |
|------------------------------------|--|

Special Precautions

| | |
|----------------------------|---|
| Special Precautions | Keep away from sources of ignition during and immediately following charge. Use insulated tools when working with cells. Avoid prolonged overcharge in confined areas. Do not charge the batteries before placing the explosion proof vents in the cells. Place the transparent shrouds on the intercell connections as soon as is practicable. |
|----------------------------|---|

Fire/Explosion Hazard

**Fire/Explos.
Hazard
Fire Fighting
Procedures
Extinguishing
Media
Hazardous
Reaction
Hazchem Code⁴**

Y (black on white) E

CONTACT POINT

Contact

Australia: Business Hours: Dr David Brown
Telephone: (02) 9681 3633
After Hours: 1800 819 829 or (02) 9680 1183

IMPORTANT ADVICE:

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Battery Energy Power Solutions Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

End of MSDS
