

Material Safety Data Sheet

Section 1 Product and Company Identification

Product name:	Valve-regulated lead-acid battery
Trademark:	ULTRACELL
Company name:	Ultracell (UK) Ltd
Address:	Vesty Business Park, Vesty Road, Liverpool, U.K. L30 1NY
E-mail:	info@ultracell.co.uk
Fax:	+44 151 523 0855
Emergency Phone:	+44 151 523 2777

Section 2 Composition/Information on Ingredients

Pure Chemical Mixture

Chemical ingredients:

Chemical ingredient	Molecular Formula	Content (about)	CAS No.
Lead and lead oxide	Pb, PbO ₂	60-70	7439-92-1,1309-60-0
Calcium	Ca	<0.15	7440-70-2
Tin	Sn	<1	7440-31-5
Sulfuric acid	H ₂ SO ₄	10-15	7664-93-9
ABS		5-10	9003-56-9
AGM separator		3-4	

Section 3 Hazards Summarising

Classification of Danger: (see section 14)

Invasion Route: eyes, skin contact, ingestion

Health Hazard: The Valve-regulated lead-acid batteries are not hazardous when used according to the instructions of manufacturer under normal conditions. In case of abuse, there's risk of rupture, fire, heat, leakage of internal components, which could cause injury. Contact with internal components may cause irritation or burns to eyes and skin. Abuse includes but is not limited to the following cases: over-charging, short circuit, fire, hard impact, punctured with acute object, crushed, and broken. **Environmental Hazard:** The internal electrolyte may cause adverse environmental impact. **Danger of Burning and Exploding:** Short circuit, fire, or explosions may occur in high temperature.

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Section 4 First - Aid Measures

The valve-regulated lead-acid batteries are not hazardous under normal circumstances. In case of internal hazardous substance leaking, the following measures should be taken:

AFTER SKIN CONTACT:

In case of contact, immediately wash skin with soap and copious amounts of water. If irritation persists, please seek medical attention.

AFTER EYE CONTACT:

In case of contact, flush eyes with clean water for 15 minutes while lifting eyelids, if irritation persists, please seek medical attention.

AFTER INHALATION:

If inhaled, immediately seek an area of fresh air. If breathing becomes difficult or stops, provide oxygen/artificial respiration and seek immediate medical attention.

AFTER INGESTION:

If swallowed, wash out mouth with water provided and ensure person is conscious. Call a physician.

Section 5 Fire - Fighting Measures

Characteristics of Hazard: Toxic fumes; gases or vapors may evolve on burning.

Hazardous Combustion Products: CO, CO₂, acid, hydrogen and oxygen gas.

Fire-extinguishing Methods and Extinguishing Media: Carbon dioxide, dry chemical powder, or appropriate foam.

Attention in Fire-extinguishing: The Firemen should put on anti-gas masks and full fire-fighting suits.

Section 6 Accidental Release Measures

If leakage of batteries occurs, liquid can be absorbed with sand, earth, or other inert substance, and the contaminated area should be ventilated immediately. Damaged batteries that are not hot or burning should be placed in a sealed plastic bag or container, and be disposed of immediately. Protective clothing should be worn when disposing of damaged batteries i.e. gloves, goggles and acid resistant clothing/boots.

Section 7 Handling and Storage

Handling: Please handle the batteries with caution and care to avoid damage to either the case or internal components. Ensure battery terminals do not come into contact with any metallic objects to avoid short circuit. Once handled be sure to wash hands with soap and water before eating/drinking.

Storage: Store and keep far away from heat, sparks, open flame, or other heat ignition sources, within room temperature <30°C in ventilated and dehumidified environments.

Section 8 Exposure Controls/Personal Protection

Maximum Allowable Concentration: No Standard available

Engineering Controls: No engineering controls are required for handling batteries that have not been damaged. Personal protective equipments for damaged batteries should include chemical resistant gloves and safety glasses.

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Section 9 Physical and Chemical Properties

Not Applicable

Section 10 Stability and Reactivity

Stability: Stable under normal temperatures and pressures.

Incompatibility: Oxidizing agents

Conditions to Avoid: Heat and open flame, short circuit, and water

Hazardous polymerization: Will not occur

Decomposition Products: CO, CO₂, acid, hydrogen and oxygen gas

Section 11 Toxicological Information

This product does not elicit toxicological properties during routine handling and use.

Section 12 Ecological Information

Ecological toxicity: N/A

Biodegradability: N/A

Non-biodegradability: N/A

Other hazardous: The internal electrolyte may cause adverse environmental impacts

Section 13 Disposal

Waste Treatment: Recycle or dispose of in accordance with government, state & local regulations.

Attention for Waste Treatment: Spent batteries should not be treated as ordinary waste. Do not throw into fire or place in high temperatures. Do not disassemble, dissect, crush or pierce. Recycling is preferred method of disposal.

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Section 14 Transport Information

UN NO. UN2800

Proper shipping name: N/A

Packing group: N/A

Our non-spillable lead acid batteries are also exempt from the international hazardous materials (also known as "dangerous goods") regulations since they comply with the following requirements:

- The vibration and pressure differential tests found in Packing Instruction 806 and Special Provision A67 of the International Air Transport Association (IATA) Dangerous Goods Regulations;

The vibration and pressure differential tests found in Packing Instruction 806 and Special Provision A67 of the International Civil Aviation Organization (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods by Air;

- The vibration, pressure differential, and "crack" tests found in Special Provision 238.1 and 238.2 of the International Maritime Dangerous Goods (IMDG) Code.

- IMO: Non-Hazardous for Sea Transport.

DOT

Not - regulated

non-Spillable Battery complies with the provisions listed in 49 CFR 173.159(d), therefore must not be marked with an identification number or hazardous label and is not subject to hazardous shipping paper requirements.

Batteries must be securely packed to prevent short-circuiting

Section 15 Regulatory Information

Regulatory information: Recommendations on the transport of dangerous goods-model regulations(15th revised) IATA dangerous goods regulations, International Maritime Dangerous Goods Code, U.S. Hazardous Material Regulations

Section 16 Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.