THE POWER SOURCE
PERFORMANCE MATTERS

DELTEC® BATTERIES

Material Safety Data Sheet

1.Identification of Substance

LEAD ACID BATTERY

Product/Chemical Name:
Valve Regulated Lead Acid Battery
Other

Product Names:
EV Traction Dry Cell, EV Traction Gel Cell, Gel Absorbed Electrolyte Sealed
Valve Regulated Battery Non-Spillable

Chemical Family/Classification:
Electrolyte type lead acid storage battery

Product Use:
Electrical storage batteries for industrial, commercial and personal use.

Imported By: **The Power Source Pty Ltd**

64 Link Drive

Yatala, QLD, 4207

2.Hazards Identification

Hazard description: This product is a nonspillable lead acid battery. The information below is intended for repeated and prolonged contact with the battery contents in an occupational setting. In the absence of an incident or accident, is not likely to apply to normal product use. However, this Material Safety Data Sheet contains valuable information critical to the safe handling and proper use of this product. This Material Safety Data Sheet should be retained and available for
employees and other users of this product. Always be aware of the risk of fire, explosion, or burns. Do not short circuit the (+) and (-) terminals with any other metals. Do not disassemble or modify the battery. Do not solder a battery directly. Keep away from fire or open flame.

3.Composition/Data on Components

COMPONENT	CAS No.	% By wt.	EC No.
Lead	7439-92-1	50%	231-100-4
Sulfuric acid Lead	7664-93-9	24%	231-639-5
monoxide	1309-60-0	26%	215-174-5

4.First aid Measures

Eyes:
Skin: Irrigate thoroughly with water for at least 15 minutes. Obtain medical attention. Wash off skin thoroughly with water. Remove contaminated clothing and wash before reuse. In severe cases obtain medical attention.

Inhalation: Remove from exposure, rest and keep warm. In severe cases obtain medical attention.

Ingestion: Wash out mouth thoroughly with water and give plenty of water to drink. Obtain medical attention.

Further treatment: All cases of eye contamination, persistent skin irritation and casualties who have swallowed this substance or been affected by breathing its vapours should be seen by a Doctor.

5.Fire Fighting Measures

Extinguishing Media: CO2; foam; dry chemical. Do not use carbon dioxide directly on cells. Avoid breathing vapors. Use appropriate media for surrounding fire.

Special Fire-Fighting Procedures: Use positive pressure, self-contained breathing apparatus. Beware of acid splatter during water application and wear acid-resistant clothing, gloves, face and eye protection. If batteries are on charge, shut off power to the charging equipment, but note that strings of series connected batteries may still pose risk of electric shock even when charging equipment is shut down.

Unusual Fire and Explosion Hazards: Highly flammable hydrogen gas is generated during charging and operation of batteries. If ignited by burning cigarette, naked flame or spark, may cause battery explosion with dispersion of casing fragments and corrosive liquid electrolyte. Carefully follow manufacturer's instructions for installation and service. Keep away all sources of gas ignition and do not allow metallic articles to simultaneously contact the negative and positive terminals of a battery.
Follow manufacturer's instructions for installation and service.

6.Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Use personal protective equipment as required.

Methods and material for containment and cleaning up

Methods for Containment: Stop flow of material, contain/absorb small spills with dry sand, earth, and vermiculite. Do not use combustible materials. If possible, carefully neutralize spilled electrolyte with soda ash, sodium bicarbonate, lime, etc. Wear acid-resistant clothing, boots, gloves, and face shield. Do not allow discharge of un-neutralized acid to sewer. Acid must be managed in accordance with approved local, state, and federal requirements. Consult state environmental agency and/or federal EPA.

Methods for Clean-Up: Dispose of as a hazardous waste. Dispose of in accordance with applicable local, state and federal regulations.

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7.Handling and Storage

Handling: Unless involved in recycling operations, do not breach the casing or empty the contents of the battery. Handle carefully and avoid tipping, which may allow electrolyte leakage. There may be increasing risk of electric shock from strings of connected batteries. Keep containers tightly closed when not in use. If
battery case is broken, avoid contact with internal components. Keep vent caps on and cover terminals to prevent short circuits. Place cardboard between
layers of stacked automotive batteries to avoid damage and short circuits. Keep away from combustible materials, organic chemicals, reducing substances, metals, strong oxidizers and water. Use banding or stretch wrap to secure items for shipping.

Storage: Store batteries under roof in cool, dry, well-ventilated areas separated from incompatible materials and from activities that may create flames, spark, or
heat. Store on smooth, impervious surfaces provided with measures for liquid containment in the event of electrolyte spills. Keep away from metallic objects that could bridge the terminals on a battery and create a dangerous
short-circuit. Room ventilation is required for batteries utilized for standby power generation. Never recharge batteries in an unventilated, enclosed space.

Charging: There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or not being charged. Shut-off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging space should be ventilated. Keep battery vent caps in position. Prohibit smoking and avoid creation of flames and sparks nearby. Wear face and eye protection when near batteries being charged.

8.Exposure Controls and Personal Protection

Engineering Controls (Ventilation): Store and handle in well-ventilated area. If mechanical ventilation is used, components must be acid-resistant. Handle batteries cautiously, do not tip to avoid spills. Make certain vent caps are on securely. If battery case is damaged, avoid bodily contact with internal components. Wear protective clothing, eye and face protection, when filling, charging, or handling batteries. Do not allow metallic materials to simultaneously contact both the positive and negative terminals of the batteries. Charge batteries in areas with adequate ventilation. General dilution ventilation is acceptable.

Respiratory Protection (NIOSH/MSHA approved): None required for normal handling of the finished product. When concentrations of sulfuric acid mist are known to exceed PEL, use NIOSH or MSHA-approved respiratory protection.

Skin Protection:	None required for normal handling of the finished product. If battery case is damaged, use rubber or plastic acid-resistant gloves with elbow-length gauntlet, acid-resistant apron, clothing and boots.
Eye Protection:	None required for normal handling of the finished product. If necessary to handle damage product where exposure to the organic electrolyte is a possibility, chemical splash goggles and a face shield are recommended.
Other Protection:	In areas where water and sulfuric acid solutions are handled in concentrations greater than 1%, emergency eyewash stations and showers should be provided, with unlimited water supply. Chemically impervious apron and face shield recommended when adding water or electrolyte to batteries. Wash Hands after handling.

9.Physical and Chemical Properties

Form:	Solid
Color:	Gray, black
Odor:	Odorless 12V
Nominal Voltage:	7AH
Capacity: Watt-hour:	84WH

10.Stability and Reactivity

Stability:	Stable.
Hazardous Decomposition Products:	N/A.
Conditions to Avoid:	Heating, mechanical abuse and electrical abuse.
Hazardous Polymerization:	If leaked, forbidden to contact with strong oxidizers, mineral acids, strong alkalis, halogenated hydrocarbons.

11.Toxicological Information

Under normal conditions of use, this product does not present a health hazard. The following information is provided for organic electrolyte and lead exposure that may occur due to container breakage or under extreme conditions such as fire. Organic electrolyte – reacts with moisture/water to produce hydrofluoric acid in trace quantities. Hydrofluoric acid is extremely corrosive and toxic. In severe exposures it acts as a systemic poison and causes severe burns. The reaction may be delayed. Any contact with this material, even minor, requires immediate medical attention.

Inhalation, skin contact and eye contact are possible when the battery is opened.

Exposure to internal contents, the corrosive fumes will be very irritating to skin, eyes and mucous membranes. Overexposure can cause symptoms of non-fibrotic lung injury and membrane irritation.

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12.Ecological Information

Environmental Impact:

Proper use and disposal of the battery will not harm the environment. Dispose of the battery, away from water, rain and snow.

13.Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation.

Dispose of the batteries in accordance with approved local, state, and federal requirements. Consult state environmental agency and/or federal EPA.

14.Transport Information

GROUND – US-DOT/CAN-TDG/EU-ADR/APEC-ADR: No proper shipping name therefore is not regulated as hazardous material.

Label: "NON-SPILLABLE" or "NON-SPILLABLE BATTERY"

For US, refer to 49 CFR 173.159(f)(1) & (2) for details. Non-spillable batteries are excepted from 49 CFR if the following criteria are met:

-The battery must be protected against short circuits and securely packaged

-Each battery and the outer packaging must be plainly and durably marked "NON-SPILLABLE" or "NON-SPILLABLE BATTERY".

AIRCRAFT – ICAO- IATA(IATA DGR 62nd Edition 2021): No proper shipping name therefore is not regulated as hazardous material.

Label: "NON-SPILLABLE" or "NON-SPILLABLE BATTERY"

For air shipments, reference IATA Dangerous Goods Regulations Special Provision A67 and Packing Instruction 872. Non-spillable batteries are excepted from IATA – IATA regulations provided that the battery terminals are protected against short circuits.

VESSEL – IMO-IMDG: No proper shipping name therefore is not regulated as hazardous material.

Label: "NON-SPILLABLE" or "NON-SPILLABLE BATTERY"

For shipments by water, reference IMDG Special Provision 238.1 & .2 and Packing Instruction P003. Non-spillable batteries are excepted from all IMDG Code provided that the battery terminals are protected against short circuits.

ADDITIONAL INFORMATION:

-Non-Spillable Battery complies with the provisions listed in 49 CFR 173.159. Does not require marking with an identification number or hazardous label and is not subject to hazardous shipping paper requirements.

-Non-Spillable Battery complies with the provisions listed in ICAO- IATA. The words "Not Restricted" and the Special Previsions number must be included in the description of the substance on the Air Waybill.

-Each battery and the outer packaging must be plainly and durably marked "NON-SPILLABLE" or "NON-SPILLABLE BATTERY".

-Batteries must be kept upright at all times and packaged as required to prevent short circuits.

-Transport may require packaging and paperwork, including the Nature and Quantity of goods, per applicable origin/destination/customs points, as-shipped.

US DOT

SHIPPING NAME: Battery, Wet, Non-Spillable, Class 8, UN 2800, PG, III. Shipping Name: Batteries, Wet, Non-Spillable

15.Regulations

Law Information

《Dangerous Goods Regulation》

《Recommendations on the Transport of Dangerous Goods Model Regulations》

《International Maritime Dangerous Goods》

《Technical Instructions for the Safe Transport of Dangerous Goods》

《Classification and code of dangerous goods》

OSHA Hazard Communication Standard Status

Toxic Substances Control Act (TSCA) Status

SARA Title III

RCRA

In accordance with all Federal, State and Local laws

16.Other Information

DISCLAIMER OF LIABILITY

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. Accordingly, KIJO Testing Center will not be responsible for damages resulting from use of or reliance upon this information.