



# BATTERY PACK SAFETY DATA SHEET

## SECTION 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product Name:</b>	Schneider Electric Battery Pack (sealed lead-acid batteries)
<b>Other Names:</b>	
<b>Product Codes/Trade Names:</b>	
<b>Recommended Use:</b>	Battery pack for Schneider Uninterruptible Power Supply (UPS)
<b>Applicable In:</b>	Australia
<b>Supplier:</b>	Schneider Electric (Australia) Pty Ltd ABN 42 004 969 304
<b>Address:</b>	78 Waterloo Road, Macquarie Park, NSW 2113 AUSTRALIA
<b>Telephone:</b>	1300 369 233 Our customer service team is available from 7:30am to 7:00pm (Mon to Fri) AEST
<b>Email Address:</b>	customercare.au@schneider-electric.com
<b>Web Site:</b>	www.schneider-electric.com.au
<b>Facsimile:</b>	1300 369 288
<b>Emergency Phone Number:</b>	000 Fire Brigade and Police (available in Australia only)
<b>Poisons Information Centre:</b>	13 11 26 (available in Australia only)

This Safety Data Sheet (SDS) is issued by the Supplier in accordance with National standards and guidelines from Safe Work Australia (SWA – formerly ASCC/NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its SDS by any other person or organization. The Supplier will issue a new SDS when there is a change in product specifications and/or standards, codes, guidelines, or Regulations.

## SECTION 2: HAZARD IDENTIFICATION

**STATEMENT OF HAZARDOUS NATURE:** The product as delivered, and in normal use, is classified as **non-Hazardous** according to the criteria of Safe Work Australia (SWA – formerly ASCC/NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

The battery pack is classified as **Dangerous Goods** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

The battery pack is a plastic and metal sealed case of robust construction containing one or more sealed lead-acid batteries. The batteries are contained within cartridges and are of a sealed, non-spillable design. Under normal use and handling, there is no contact with the internal components of the battery and electrolyte, and they do not emit or allow access to regulated or hazardous chemicals or substances. Misuse of the product, such as overcharging or physical damage, may result in a discharge of battery electrolyte (sulphuric acid).

The following Risk & Safety phrases are ONLY applicable in the event that the battery electrolyte is discharged.

<b>Risk Phrases</b>	<b>Safety Phrases</b>
R35: Causes severe burns.	S2: Keep out of the reach of children. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S30: Never add water to this product. S45: In case of accident or if you feel unwell, seek medical advice immediately (show this SDS or label where possible).

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

The following table applies to the battery pack within the UPS

Chemical Name:	Synonyms:	Proportion:	CAS Number:
Lead	--	55.9 - 63.4%	7439-92-1
Sulphuric acid	Sulfuric acid	15.8 - 20.5%	7664-93-9
Polypropylene	1-Propene, homopolymer	4.8 - 12.3%	9003-07-0
Amorphous/fused silica	--	3.7 - 5.6%	60676-86-0
Polyvinyl Chloride	--	2.6%	9002-86-2
Copper	--	2.6%	7440-50-8
Steel	--	0.4%	--
Tin	--	0.3%	7440-31-5
Polycarbonate	--	0.1%	25037-45-0

### SECTION 4: FIRST AID MEASURES

The following applies **ONLY** in the event that the battery electrolyte is discharged and exposure occurs.

<b>Swallowed:</b>	Do NOT induce vomiting. If conscious, drink large quantities of water. Seek immediate medical attention.
<b>Eyes:</b>	Flush eye with water for a minimum of 15 minutes. Seek immediate medical attention.
<b>Skin:</b>	Remove contaminated clothing. Wash skin with soap and water. Seek medical attention if symptoms persist. Launder contaminated clothing before re-use.
<b>Inhaled:</b>	Remove to fresh air. Give artificial respiration if victim is not breathing, and seek immediate medical attention.
<b>Advice to Doctor:</b>	Treat symptomatically as for any strong acid.

### SECTION 5: FIRE FIGHTING MEASURES

<b>Flammability:</b>	The batteries are generally non-flammable and surrounding fire conditions determine counter-measures. UPS are designed to be placed in well-ventilated areas. Hydrogen and oxygen gases are produced during normal battery operation and charging, and are vented to surrounding space. If ventilation is restricted these gases may form an explosive atmosphere around batteries. Avoid open flame, sparks and other ignition sources in areas where batteries are used or stored.
<b>Suitable extinguishing media:</b>	Use dry chemical or carbon dioxide, as for electrical fire. Water should not be used unless from a safe distance, due to exothermic reaction which will result.
<b>Hazards from combustion products:</b>	Acid mists or vapour, and toxic fumes from burning plastic.
<b>Special protective precautions and equipment for fire fighters:</b>	In major fire situations where multiple battery systems are involved, fire fighters to wear acid-resistant full protective clothing, including rubber footwear and self-contained breathing apparatus.
<b>HAZCHEM Code:</b>	2R

### SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Emergency Procedure:</b>	In the event that the electrolyte is discharged from multiple battery systems, isolate spill or leak area for at least 50m in all directions. Do not get water inside
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	containers. Do not walk through spilled material. Wear appropriate personal protective equipment, and avoid direct contact. Ventilate enclosed areas.
<b>Containment Procedure:</b>	If single battery is leaking, place in a heavy duty leak-proof plastic bag for disposal. If electrolyte is discharged from multiple battery systems, bund and neutralise liquid with alkali e.g. Soda Ash or Sodium Bicarbonate, pouring neutralising material slowly from the outside of the spill inwards. Continue until the entire spill is covered.
<b>Clean Up Procedure:</b>	After neutralization reaction with alkali is complete, absorb with dry earth, sand, or similar non-flammable material. Collect and place in a drum or other suitable container for disposal in accordance with local regulations. Avoid run-off to waterways and sewers.

## SECTION 7: HANDLING AND STORAGE

<b>Handling:</b>	Avoid direct conductive connection across positive and negative terminals to prevent short circuiting. Use only in well ventilated areas. Manual handling of bulk packages should be in accordance with Manual Handling Regulations and Codes.
<b>Storage:</b>	Store in a cool, well-ventilated place. Avoid storage in areas exposed to heat or direct sunlight. Batteries should be kept in an upright position away from ignition sources. Check periodically for spills and leaks.  Stack batteries so as to prevent accidental contact between terminals, and/or other damage to terminals or containers. Whenever feasible, store on shipping pallet or rack. Do not stack loaded pallets or racks on top of other batteries.
<b>Incompatibilities:</b>	Store away from explosives, "dangerous when wet" substances, foodstuffs, oxidisable materials, organic peroxides, radioactive substances, combustible materials and sources of ignition.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Workplace Exposure Standards:</b>	<b>Workplace Exposure Standards for Airborne Contaminants, Safe Work Australia</b>  No exposure standards are applicable to this product as delivered and in normal use. In the event that the battery electrolyte is discharged, the following exposure standard applies:  Sulphuric acid: TWA - 1 mg/m <sup>3</sup> , STEL - 3 mg/m <sup>3</sup>
<b>Notes on Exposure Standards:</b>	All occupational exposures to atmospheric contaminants should be kept to as low a level as is workable (practicable).  TWA (Time Weighted Average): the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.  STEL (Short Term Exposure Limit): the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour work day.
<b>ENGINEERING CONTROLS</b>	
<input type="checkbox"/> <b>Ventilation:</b>	Use only in a well ventilated area.
<input type="checkbox"/> <b>Special Consideration for Repair &amp;/or Maintenance of Contaminated Equipment:</b>	In the event that the battery electrolyte is discharged, the recommendations for Exposure Control and Personal Protection should be followed.

<b>PERSONAL PROTECTION</b>	
<input type="checkbox"/> <b>Personal Hygiene:</b>	Wash hands before eating, drinking, using the toilet, or smoking. Wash contaminated clothing and other protective equipment before storing or re-using.
<input type="checkbox"/> <b>Skin Protection:</b>	Not required under normal use. In the event that the battery electrolyte is discharged, wear impervious PVC acid resistant gloves with elbow length gauntlet.
<input type="checkbox"/> <b>Eye Protection:</b>	Not required under normal use. In the event that the battery electrolyte is discharged, wear chemical goggles/face shield.
<input type="checkbox"/> <b>Respiratory Protection:</b>	Not required under normal use. In the event that the battery electrolyte is discharged, assessment of need for protection against inhalation of acid mist may be needed.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Solid shaped article. In the event that the battery electrolyte is discharged, the electrolyte is a clear, mobile liquid.
<b>Odour:</b>	Battery packs have a slight metallic/plastic odour
<b>Vapour Pressure:</b>	(Sulphuric acid electrolyte) 13 to 22 mmHg @ 25°C
<b>Boiling Point (°C):</b>	(Sulphuric acid electrolyte) 95°C
<b>Melting/Freezing Point (°C):</b>	(Sulphuric acid electrolyte) -7 to -70°C
<b>Solubility in water:</b>	(Sulphuric acid electrolyte) 100%
<b>Specific Gravity (H<sub>2</sub>O = 1):</b>	(Sulphuric acid electrolyte) 1.2 to 1.3 @ 25°C
<b>FLAMMABLE MATERIALS</b>	
<input type="checkbox"/> <b>Flash Point:</b>	Not flammable
<input type="checkbox"/> <b>Flammable (Explosive) Limits:</b>	Not determined
<input type="checkbox"/> <b>Autoignition Temperature:</b>	Not determined
<b>ADDITIONAL PROPERTIES</b>	
<input type="checkbox"/> <b>Evaporation Rate:</b>	Not applicable
<input type="checkbox"/> <b>% Volatiles:</b>	0

## SECTION 10: STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under conditions of normal use, and under normal temperatures and pressures.
<b>Incompatible Materials:</b>	Strong oxidizing or reducing agents.
<b>Conditions to avoid:</b>	Install, store and use only as advised by Schneider Electric. Use only approved charging methods and avoid overcharging. Avoid short-circuiting. Keep away from ignition sources. Do not open, break or melt the casing.
<b>Hazardous Decomposition Products:</b>	If heated to very high temperatures, or in fire situations, the product may emit toxic fumes including carbon monoxide, lead compounds, sulphur oxides. May release hydrogen/oxygen gas mixture if over-charged.
<b>Hazardous Reactions:</b>	If stored and handled in accordance with standard industrial practices, no hazardous reactions are known.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Toxicology data for the battery electrolyte (sulphuric acid):

Acute Toxicity (Ingestion): Oral Rat LD50 = 2140 mg/kg

Acute Toxicity (Inhalation): Rat LC50 = 510 mg/m<sup>3</sup> 2 Hours

Acute Toxicity (Eye Irritation): Rabbit = 250 µg, Severe irritation

Health effects information for the battery electrolyte (sulphuric acid) is based on reported effects in use from overseas and Australian reports.

### Health Effects: Acute (short term)

<b>Swallowed:</b>	No exposure is foreseeable in normal use. Battery electrolyte (sulphuric acid) is corrosive and causes severe burns, and may cause severe irritation of mouth, throat, oesophagus and stomach.
<b>Eyes:</b>	Any splash of battery electrolyte (sulphuric acid) to the eye may result in severe irritation, burns, cornea damage, and blindness.
<b>Skin:</b>	Unlikely under normal use. Battery electrolyte (sulphuric acid) may cause severe irritation, burns and ulceration. Repeated contact with dilute solution can cause dermatitis.
<b>Inhaled:</b>	Not foreseeable in normal use. Battery electrolyte (sulphuric acid) in vapours or mists may cause respiratory irritation and chemical pneumonitis.

### Health Effects: Chronic (long term)

No exposure is foreseeable in normal use. Repeated or prolonged inhalation of sulphuric acid mist can cause irritation and inflammation of the respiratory tract, leading to chronic bronchitis and other serious and potentially irreversible lung disorders.

## SECTION 12: ECOLOGICAL INFORMATION

<b>Eco-toxicity:</b>	In normal use, no leakage or emissions or eco-toxic degradation occurs. Contains ingredients which are toxic to aquatic life with long-lasting effects, including the electrolyte and lead.
<b>Persistence and Degradability:</b>	Batteries are persistent and non-bio-degradable. May cause long-term adverse effects in the environment. The product should not be allowed to enter drains or water courses. See Section 13 below.

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>Disposal methods and containers:</b>	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Spent batteries should be sent to a designated battery disposal point or service, or to a secondary lead smelter for recycling.
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## SECTION 14: TRANSPORT INFORMATION

<b>Proper Shipping Name:</b>	Battery, Wet, Non-Spillable, Electric Storage
<b>UN number:</b>	2800
<b>DG Class:</b>	8
<b>HAZCHEM code:</b>	2R

## SECTION 15: REGULATORY INFORMATION

<b>Poisons Schedule:</b>	The Battery electrolyte (sulphuric acid) is a scheduled S6 poison.
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## SECTION 16: OTHER INFORMATION

### For further information on this product, please contact:

Schneider Electric, 78 Waterloo Road, Macquarie Park, NSW 2113 AUSTRALIA Phone: 1300 369 233

### ADDITIONAL INFORMATION

#### Australian Standards References:

AS/NZS 1336	Recommended Practices for Occupational Eye Protection
AS/NZS 1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS/NZS 1716	Respiratory Protective Devices
AS 2161	Industrial Safety Gloves and Mittens (excluding electrical and medical gloves)

#### Other References:

NOHSC:1008 (2004)	Approved Criteria for Classifying Hazardous Substances
Model Code of Practice	Preparation of Safety Data Sheets for Hazardous Chemicals, December 2011, Safe Work Australia.
Model Code of Practice	Labelling of Workplace Hazardous Chemicals, December 2011, Safe Work Australia.
Model Code of Practice	Managing Risks Of Hazardous Chemicals In The Workplace, July 2012, Safe Work Australia.
ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail, edition 7.3, August 2014, National Transport Commission.
WES	Workplace Exposure Standards For Airborne Contaminants, April 2013, Safe Work Australia.
WES	Guidance On The Interpretation Of Workplace Exposure Standards For Airborne Contaminants, April 2013, Safe Work Australia.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS), 5 <sup>th</sup> revised edition, United Nations, New York and Geneva, 2013.
HSIS	Hazardous Substances Information System (HSIS), internet advisory service, Safe Work Australia.

## AUTHORISATION

Reason for Issue:	New product for Australian use
Authorised by:	David Reid
Date of Issue:	April 2015

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END OF SDS