

AQUAHEAT LITHIUM GAS SHOWER

Infosafe No.: LQD02
ISSUED Date : 08/12/2025
ISSUED by: ADVENTURE OPERATIONS
AUSTRALIA PTY LTD

Section 1 - Identification

Product Identifier

AQUAHEAT LITHIUM GAS SHOWER

Product Code

10000052

Company Name

ADVENTURE OPERATIONS AUSTRALIA PTY LTD (ABN 43 622 679 887)

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Emergency Phone Number

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info@adventureoperations.com

Recommended use of the chemical and restrictions on use

Battery

Other Names

Name	Product Code
AQUAHEAT NXT LITHIUM GAS SHOWER	10001797

Other Information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, ADVENTURE OPERATIONS AUSTRALIA PTY LTD makes no representations as to the completeness or accuracy thereof. Information is supplied on the conditions that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will ADVENTURE OPERATIONS AUSTRALIA PTY LTD or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Other Information

The battery is sealed hermetically and designed to withstand temperatures and pressures encountered during normal use. Thus, the ingredients have no hazard potential except if the battery is violated or dismantled. If exposed to a fire, mechanical shocks, and electric stress by miss-use, the battery cell case will be breached and the hazardous materials may be released and acrid gas may be emitted. Therefore the batteries should not be short circuited, overcharged, punctured, incinerated, immersed in water, force discharged or exposed to temperatures above the temperature range of the cell or battery.

The classification based on the hazardous substances contained in the product (electrode materials and liquid electrolyte contained in the batteries) is provided below for information purposes only.

Hazard Statements

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to the bones and the teeth through prolonged or repeated exposure. Route of exposure: Inhalation.

H411 Toxic to aquatic life with long lasting effects.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Cobalt lithium manganese nickel oxide	346417-97-8	25-50 %
Lithium hexafluorophosphate	21324-40-3	10-25 %
Copper (Foil, Rod, Slug)	7440-50-8	5-10 %
Aluminium	7429-90-5	<5 %
Diethyl carbonate	105-58-8	<5 %
Ethylene Carbonate	96-49-1	<5 %
Polypropylene	9003-07-0	<5 %
Ingredients determined not to be hazardous		Balance

Information on Composition

The hazardous components of this cell or battery are contained within a sealed unit.

Section 4 - First Aid Measures

Inhalation

Not considered a potential route of exposure for intact product, when used as intended. However, if the sealed unit is damaged and if inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Not considered a potential route of exposure for intact product, when used as intended. However, if the sealed unit is damaged and exposure occurs, do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Skin

Not considered a potential route of exposure for intact product, when used as intended. However, if the sealed unit is damaged and exposure occurs, remove immediately any contaminated or splash cloth and wash before reuse. Wash off skin thoroughly with cold water during more than 15 minutes. Consult a doctor.

Eye

Not considered a potential route of exposure for intact product, when used as intended. However, if the sealed unit is damaged and contents is in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Most important symptoms/effects, acute, delayed and aggravated medical conditions

Inhalation: Contents of an open battery may cause respiratory irritation.

Skin Contact: Contents of an open battery cause severe skin burns. May cause irritation, redness and dermatitis.

Eye Contact: Contents of an open battery cause serious eye damage. May cause irritation and redness.

Ingestion: Contents of an open battery are harmful when swallowed.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Section 5 - Firefighting Measures

Suitable Extinguishing Media

Water spray and carbon dioxide.

Unsuitable Extinguishing Media

Do not use water jet.

Hazards from Combustion Products

Under fire conditions this product may emit toxic, corrosive and/or irritating fumes, smoke and gases including hydrogen fluoride, carbon monoxide, carbon dioxide, peroxides and lithium oxides.

Specific hazards arising from the chemical

Product is non flammable but ingredients will burn in a fire.

If heated to above 70 °C, batteries may burst and release hazardous flammable or corrosive materials.

Batteries close to fire should be removed only if safe to do so. Use water spray to cool fire exposed batteries.

Hazchem Code

2Y

Decomposition Temperature

Not applicable

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. In case of fire the product may be violently or explosively reactive. Use water spray to disperse vapours. This product should be prevented from entering drains and watercourses.

Section 6 - Accidental Release Measures

Emergency Procedures

Extinguish or remove all sources of ignition and stop leak if safe to do so. Wear approved respiratory protection, chemical goggles, PVC or rubber gloves, impervious protective clothing and safety boots. Do not breathe vapours. Increase ventilation. Do not touch or walk through spilled material. Evacuate all unprotected personnel. Spills may be absorbed on non-reactive absorbents such as sand, earth, vermiculite. Collect the material and place into suitable labelled containers for subsequent recycling or disposal. Wash surfaces well with detergent and water. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

Section 7 - Handling and Storage

Precautions for Safe Handling

Before use read the product label carefully. Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Avoid mechanical or electrical abuse. DO NOT short circuit or install incorrectly. Batteries may explode, pyrolyze or vent if disassembled, crushed, overcharged or exposed to high temperatures. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry and well ventilated area with stable temperature. Protect from direct sunlight, heat (>70 °C) and open flames. Keep away from strong oxidising agents, acids, strong alkalis and halogenated hydrocarbons. Do not store with other metal objects where they may be short circuited. Check regularly for leaks or spills. Store locked up.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

Battery cell is not a substance. It is a closed-structure mixture therefore no consideration on exposure controls. When it is opened or ruptured, then users should follow instructions for exposure controls or personal protection of each substance hazardous ingredients of battery cell, e.g. electrolyte.

Biological Monitoring

No biological limits allocated.

Control Banding

Not available

Engineering Controls

None required, when used as intended.

Respiratory Protection

None required, when used as intended. Industrial Application: If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye and Face Protection

None required, when used as intended. Industrial Application: Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection

Not generally required. Wear PVC or rubber glove during battery component disassembly. In the event of a leakage, impervious gloves should be used. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Thermal Hazards

No further relevant information available.

Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Article - Battery	Appearance	Solid
Colour	According to product specification	Odour	If leaking smells of medical ether
Melting Point	Not applicable	Boiling Point	Not applicable
Decomposition Temperature	Not applicable	Solubility in Water	Not available
Specific Gravity	Not applicable	pH	Not applicable
Vapour Pressure	Not applicable	Relative Vapour Density (Air=1)	Not applicable
Evaporation Rate	Not applicable	Odour Threshold	Not applicable
Viscosity	Not applicable	Partition Coefficient: n-octanol/water (log value)	Not applicable
Density	Not applicable	Flash Point	Not applicable
Flammability	Not flammable. Will burn in fire conditions	Auto-Ignition Temperature	Not available
Explosion Limit - Upper	Not applicable	Explosion Limit - Lower	Not applicable
Oxidising Properties	Not available	Particle Characteristics	Not available

Section 10 - Stability and Reactivity

Reactivity

Reacts with incompatible materials.

Chemical Stability

Stable at ambient temperature and under normal conditions of storage and use.

Possibility of hazardous reactions

Reacts with incompatible materials.

Conditions to Avoid

Direct sunlight, heat above 70 °C, open flames, physical damage, recharging, short circuiting and moisture.

Incompatible Materials

Strong oxidising agents, acids, strong alkalis and halogenated hydrocarbons.

Hazardous Decomposition Products

Under fire conditions this product may emit toxic, corrosive and/or irritating fumes, smoke and gases including hydrogen fluoride, Carbon monoxide, carbon dioxide, peroxides and lithium oxides.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Toxicology Information

Toxicity data for material given below.

Acute Toxicity - Oral

Copper

LD50(rat (Rattus norvegicus)): >2000 mg/kg bw

1,3-Dioxolan-2-one

LD50(rat (Rattus norvegicus)): 10000 mg/kg bw

Ingestion

Swallowing of the contents of this product can be harmful or irritating to the gastric tract causing nausea and vomiting.

Inhalation

Inhalation of vapours from an open battery may cause irritation of the respiratory system.

Skin

Contents of an open battery can be irritating or corrosive to skin. Causes severe skin burns.

Eye

Contents of an open battery cause serious eye damage. May cause irritation and redness.

Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT - Single Exposure

Not expected to cause toxicity to a specific target organ.

STOT - Repeated Exposure

Not expected to cause toxicity to a specific target organ.

Prolonged or repeated exposure to contents of an open battery causes damage to teeth, bones, central nervous system, liver and kidneys.

Aspiration Hazard

Not expected to be an aspiration hazard.

Section 12 - Ecological Information

Ecotoxicity

Contents of an open battery is toxic to aquatic life with long lasting effects.

Persistence and degradability

Not readily biodegradable.

Mobility

Not available

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Do not discharge this material into waterways, drains and sewers.

Acute Toxicity - Fish

Copper:

LC50(Pimephales promelas (fathead minnow)) = 0.0068-0.0156 mg/l/96h

LC50(Fish) = 0.0081 mg/l/96h

Acute Toxicity - Daphnia

Copper:

EC50 (Daphnia magna (water flea)) = 0.792 mg/l/48h

Acute Toxicity - Algae

Copper:

EC50(Algae) = 0.333 mg/l/72h

Hazardous to the Ozone Layer

This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations. Do not incinerate, since batteries may explode at excessive temperatures. To minimise personal exposure to the chemical, refer to Section 8? Exposure controls and personal protection.

Batteries must be completely discharged prior to disposal and/or the terminals must be taped or capped to prevent short circuit.

Section 14 - Transport Information

Transport Information

Road and Rail Transport (ADG Code):

This material is classified as Dangerous Goods Class 9 Miscellaneous Dangerous Goods

Class 9: Miscellaneous substances Dangerous Goods are incompatible in a placard load with any of the following:

Class 1: Explosives (when the class 9 substance is a fire risk substance) Division 5.1: Oxidising substances (when the class 9 substance is a fire risk substance) and

Division 5.2: Organic peroxides (when the class 9 substance is a fire risk substance)

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No.: 3480

Proper Shipping Name: LITHIUM ION BATTERIES

DG Class: 9

Packaging Group: -

EMS No.: F-A, S-I

Special Provisions: 188, 230, 310, 348, 376, 377, 384, 387

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 3480

Proper Shipping Name: : Lithium ion batteries

Class: 9

Packing Group: -

Label: Miscellaneous

Packing Instruction: Forbidden (For passenger and cargo aircraft)

Packing Instruction: 965 (For cargo aircraft only)

Special Provisions: A88, A99, A154, A164, A183, A201, A213, A331, A334, A802

UN Number

3480

Proper Shipping Name

LITHIUM ION BATTERIES

Transport Hazard Class

9

Hazchem Code

2Y

IERG Number

26

Special Precautions for User

Not available

IMDG Marine pollutant

No

Transport in Bulk

Not available

Additional Information

The product has been tested and found to fulfil the requirements and conditions in UN Model Regulations, Manual of tests and criteria Section 38.3 and UN Model Regulations SP 188 1.2m drop test.

Total net weight of the battery is less than 10 kg.

The product can also be transported UN No.: 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT.

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No.: 3481

Proper Shipping Name: LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or LITHIUM ION BATTERIES PACKED WITH EQUIPMENT (including lithium ion polymer batteries)

DG Class: 9

Packaging Group: -

EMS No.: F-A, S-I

Special Provisions: 188, 230, 310, 348, 360, 376, 377, 384, 387, 390

Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 3481

Proper Shipping Name: : Lithium ion batteries packed with equipment or Lithium ion batteries contained in equipment (including ion polymer batteries)

Class: 9

Packing Group: -

Label: Miscellaneous Lithium batt

Packing Instruction: Forbidden (For passenger and cargo aircraft)

Packing Instruction: See 966 (Lithium ion batteries packed with equipment)(For cargo aircraft only)

Packing Instruction: See 967 (Lithium ion batteries contained in equipment)For cargo aircraft only

Special Provisions:

Lithium ion batteries packed with equipment: A88, A99, A154, A164, A181, A185, A213, A802

Lithium ion batteries contained in equipment: A48, A88, A99, A154, A164, A181, A185, A213, A220

Section 15 - Regulatory Information

Regulatory Information

Not classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP). (General Exemption: Batteries)

Poisons Schedule

Not Scheduled

Montreal Protocol

Not listed

Stockholm Convention

Not listed

Rotterdam Convention

Not listed

International Convention for the Prevention of Pollution from Ships (MARPOL)

Not available

Agricultural and Veterinary Chemicals Act 1994

Not available

Basel Convention

Not available

Section 16 - Any Other Relevant Information

Date of Preparation

SDS created: December 2025

Version Number

1.0

Literature References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Code of Practice for Supply Diversion into Illicit Drug Manufacture.

National Code of Practice for Chemicals of Security Concern.

Agricultural Compounds and Veterinary Chemicals Act.

International Agency for Research on Cancer (IARC) Monographs.

Montreal Protocol on Substances that Deplete the Ozone Layer.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

International Air Transport Association (IATA) Dangerous Goods Regulations.

International Maritime Dangerous Goods (IMDG) Code.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).

Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

END OF SDS

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