# Material Safety Data Sheet
# *220350, 220370 & 220380*
# *Lithium-Ion Battery Packs*

KINCROME

***Revision Date:** 13th October 2022*
***Issue:** 2*

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION:

### PRODUCT IDENTIFIER

| | |
|---|---|
| **PRODUCT NAME** | Katana Li-ion Battery (less than or equal to 100 Watt Hours) |
| **PROPER SHIPPING NAME:** | Lithium ion Battery (less than or equal to 100 Watt Hours)<br>Class or Division 9<br>**Battery only:** UN 3480 Lithium ion Batteries<br>**Battery with equipment:** UN 3481 Lithium ion Batteries packed with equipment |
| **OTHER MEANS OF IDENTIFICATION:** | 220350 18VDC 2Ah 36Wh, 220370 18VDC 4Ah 80Wh,<br>220380 18VDC 5Ah 90Wh |

### DETAILS OF MANUFACTURE

| | |
|---|---|
| **MANUFACTURE NAME** | Jinding Group Co., Ltd. |
| **ADDRESS** | No.28 Jinding road, Huangli Town, Changzhou City, Jiangsu Province 213151 P.R.C |
| **TEL & FAX. NO** | Phone: 86-519-69693577 (fax) +86-519-69693773 |

### DETAILS OF SUPPLIER

| | |
|---|---|
| **PRODUCT NAME** | Kincrome Australia Pty. Ltd (ABN: 41 007 185 006) |
| **COMPANY ADDRESS** | 3 Lakeview Drive Caribbean Business Park Scoresby<br>Victoria 3179 AUSTRALIA |

### EMERGENCY CONTACT NO.

| | |
|---|---|
| **CONTACT NO.:** | **Australia:** 1300 657 528<br>**New Zealand:** 0011 64 2 7342 5754<br>**Poisons information Centre:**<br>**Australia:** 131 126 **New Zealand:** 0800 764 766 |

## SECTION 2 - HAZARDS IDENTIFICATION:

### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.
The product is a manufactured Lithium ion battery and is therefore classified as an article therefore is not deemed 'hazardous' when used according to the recommendations of the manufacturer. The hazard is associated with the contents of the battery. This SDS contains valuable information for the safe handling and proper use of this product.

**Save this SDS for future reference.**

### GHS ELEMENT, INCLUDING PRECAUTIONARY STATEMENTS

| | |
|---|---|
| **SYMBOL:** | Not applicable |
| **SIGNAL WORD:** | Not applicable |
| **HAZARD STATEMENT:** | Not applicable |
| **PRECAUTIONARY STATEMENT:** | |
| **PREVENTION:** | Not applicable |
| **RESPONSE:** | Not applicable |
| **STORAGE:** | Not applicable |
| **DISPOSAL:** | Not applicable |

| | |
|---|---|
| **OTHER:** | This product is specified as dangerous in the ADG Code class or division 9. |
| **GHS LABEL:** | No applicable labeling |

### HAZARD STATEMENTS PRECAUTIONARY STATEMENTS

No exposure during routine handling of product.

### CLASSIFIED HAZARDS

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200. This SDS contains valuable information for the safe handling and proper use of this product. Save this SDS for future reference.

### OTHER HAZARDS

**Fire or Explosion Hazards:**

Lithium ion battery contains flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperatures (>150°C), when damaged or abused (e.g. mechanical damage or electrical over charging).
May burn rapidly with flare burning effect. May ignite other batteries in close proximity.

**Potential Health Effects:**

Contact with electrolyte of battery may be irritating to skin, eyes and mucous membranes.
Fire will produce irritating, corrosive and/or toxic gases. Fumes may cause dizziness or suffocation.

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| **EYE IRRITATION:** | Category 1 |
| **ACUTE TOXICITY:**<br>**ORAL:**<br>**DDERMAL:** | <br>Category 4<br>Category 4 |
| **SKIN IRRITATION:** | Category 1 Sub-category B |
| **CHRONIC TOXICITY:** | No classified hazards |
| **ACUTE TOXICITY, ORAL:** | Category 4 |
| **ACUTE TOXICITY, INHALATION:** | Category 3 |

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

### SUBSTANCES

See section below for composition of Mixtures

### MIXTURES

| CAS NO. | EC NO. | %[WEIGHT] | NAME |
|---|---|---|---|
| 182442-95-l | 695-690-9 | 25-30% | Cobalt lithium manganese nickide |
| 7782-42-5 | 231-995-3 | 15-20% | Graphite Powder |
| 7439-89-6 | 231-096-4 | 15-20% | Iron |
| 7429-90-5 | 231-072-3 | 5-10% | Aluminum foil |
| 7440-50-8 | 231-159-6 | 5-10% | Copper foil |
| 21324-40-3 | 244-334-7 | 2-3% | Lithium hexafluorophosphate |
| 96-49-1 | 202-510-0 | 2-3% | Ethylene carbonate |
| 616-38-6 | 210-478-4 | 2-3% | Dimethyl carbonate |
| 623-53-0 | 433-480-9 | 2-3% | Ethyl methyl carbonate |
| 105-58-8 | 203-311-1 | 2-3% | Diethyl carbonate |
| 9003-07-0 | 618-352-4 | 1-2% | Polyproplene |
| 24937-79-9 | 607-458-6 | 0.5-2% | Polyvinylidene fluoride |
| 7440-02-0 | 231-111-4 | 0.7-1% | Nickel |
| 9002-88-4 | 618-339-3 | 0.5-1% | Polyethylene |

## SECTION 4 - FIRST AID MEASURES

### DESCRIPTION OF FIRST AID MEASURES

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|---|---|
| **EYE CONTACT** | If this product comes in contact with the eyes:<br>• Immediately hold eyelids apart and flush the eye continuously with running water.<br>• Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.<br>• Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 20 minutes.<br>• Transport to hospital or doctor without delay.<br>• Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| **SKIN CONTACT** | If skin contact occurs:<br>• Immediately remove all contaminated clothing, including footwear.<br>• Flush skin and hair with running water (and soap if available) for 20 mins.<br>• Seek medical attention in event of irritation. |
| **INHALATION** | • If fumes or combustion products are inhaled remove from contaminated area.<br>• Lay patient down. Keep warm and rested.<br>• Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.<br>• Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained.<br>• Perform CPR if necessary.<br>• Transport to hospital, or doctor, without delay. |
| **INGESTION** | • If swallowed do NOT induce vomiting.<br>• If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.<br>• Observe the patient carefully.<br>• Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.<br>• Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.<br>• Seek medical advice.<br>• Avoid giving milk or oils.<br>• Avoid giving alcohol.<br>• If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. |

### INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.
Treat symptomatically.

- Gastric lavage with copious amounts of water.
- It may be beneficial to instill 60 ml of mineral oil into the stomach.
- Oxygen and artificial respiration as needed.
- Electrolyte balance: it may be useful to start 500 ml. M/6 sodium bicarbonate intravenously but maintain a cautious and conservative attitude toward electrolyte replacement unless shock or severe acidosis threatens.

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### BASIC TREATMENT

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Establish a patent airway with suction where necessary.
Watch for signs of respiratory insufficiency and assist ventilation as necessary.

Administer oxygen by non-rebreather mask at 10 to 15 l/min.
Monitor and treat, where necessary, for shock.
Monitor and treat, where necessary, for pulmonary oedema.
Anticipate and treat, where necessary, for seizures.
DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong
gag reflex and does not drool.
Give activated charcoal.
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## ADVANCED TREATMENT

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Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory
arrest has occurred.
Positive-pressure ventilation using a bag-valve mask might be of use.
Monitor and treat, where necessary, for arrhythmias.
Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might
create complications.
If the patient is hypoglycaemic (decreased or loss of consciousness, tachycardia, pallor, dilated pupils, diaphoresis and/or dextrose strip or glucometer readings below 50 mg), give 50% dextrose.
Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might
create complications.
Drug therapy should be considered for pulmonary oedema.
Treat seizures with diazepam.
Proparacaine hydrochloride should be used to assist eye irrigation.
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## EMERGENCY DEPARTMENT

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Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.
Acidosis may respond to hyperventilation and bicarbonate therapy.
Haemodialysis might be considered in patients with severe intoxication.
Consult a toxicologist as necessary. BRONSTEIN, A.C. and CURRANCE, P.L. EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994 For C8 alcohols and above.
Symptomatic and supportive therapy is advised in managing patients.

## SECTION 5 - FIRE FIGHTING MEASURES

### GENERAL FIRE HAZARDS

See Section 9 for Flammability Properties.
Battery cells may rupture when exposed to excessive heat. Electrolyte solution is flammable.

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| **SUITABLE EXTINGUISHING MEDIA:** | Use Dry chemical, Sandy soil, Carbon dioxide or appropriate foam. |
| **HAZARDS FROM COMBUSTION PRODUCTS:** | Depending on combustion conditions, a complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, sulphur oxides, phosphorus oxides and metal oxides will be evolved when this material undergoes combustion. |
| **SPECIAL PROTECTIVE EQUIPMENT:** | Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) in case of fire. |

NFPA 704 Hazard Class

HMIS

0 (Minimal)
1 (Slight)
2 (Moderate)
3 (Serious)
4 (Severe)

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

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| **CONTAINMENT PROCEDURES:** | Stop the flow of material, if this is without risk. |
| **CLEAN-UP PROCEDURES:** | Absorb spill with inert material. Shovel material into appropriate container for disposal. Clean spill area with detergent and water; collect wash water for proper disposal. |
| **EVACUATION PROCEDURES:** | Isolate area. Keep unnecessary personnel away. |
| **SPECIAL PROCEDURES:** | Avoid skin contact with the spilled material. |
| **NON-EMERGENCY PERSONNEL:** | Wear appropriate protective equipment as in section 8 below to prevent skin and eye contamination. Remove of ignition sources and provision of sufficient ventilation. |
| **EMERGENCY PROCEDURES:** | Personnel involved in clean up required to wear appropriate personal protective equipment and clothing to minimize exposure. |
| **ENVIRONMENTAL PRECAUTION:** | Isolate the spillage and prevent the material to enter drains, sewers, waterways and soil Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority. |
| **METHOD AND MATERIALS FOR CONTAINMENT AND CLEANING-UP:** | If batteries show signs of leaking, avoid skin or eye contact with the material leaking from the battery. Use chemical resistant rubber gloves and non-flammable absorbent materials for clean up. Mix with inert material (e.g. dry sand, vermiculite) and transfer to sealed container for disposal. |

## SECTION 7: HANDLING AND STORAGE

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|---|---|
| **PRECAUTIONS FOR SAFE HANDLING:** | Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Avoid mechanical or electrical abuse. More than a momentary short circuit will generally reduce the battery service life. Avoid reversing battery polarity within the battery assembly. In case of a battery unintentionally be crushed, rubber gloves must be used to handle all battery components. Avoid contact with eyes, skin. Avoid inhalation. No smoking at working site. Materials to Avoid: Strong oxidizing agents, Corrosives. |
| **CONDITIONS FOR SAFE STORAGE:** | Store in a cool, well-ventilated area. Keep away from ignition sources, heat and flame. Such batteries must be packed in inner packages in such a manner as to effectively prevent short circuits and to prevent movement which could lead to short circuits. Materials to Avoid: Strong oxidizing agents, Corrosives. |

## SECTION 8: EXPOSURE CONTROLS/PERSON PROTECTION

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|---|---|
| **ENGINEERING CONTROLS:** | Should only be used in a well ventilated area, use mechanical handling to reduce contact with materials.<br>To keep employee exposures as low as possible a local ventilation system is recommended as it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. |
| **PERSONAL PROTECTIVE EQUIPMENT:** | |
| **EYE/ FACE PROTECTION:** | Not necessary under normal product use conditions.<br>Wear safety glasses if handling a damaged battery. |
| **SKIN PROTECTION:** | Wear neoprene gloves if prolonged or repeated contact is likely. Other protective clothing should be worn as appropriate to the job conditions including long-sleeved overalls and safety footwear. |
| **RESPIRATORY PROTECTION:** | Not necessary under normal product use conditions |
| **THERMAL HAZARDS:** | No Data Available |
| **OTHER** | No smoking, drinking and/or eating at the working site, wash hands thoroughly after handling |

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Typical physical and chemical properties are given below. Consult the Supplier in Section 1 for additional data.

| | |
|---|---|
| **APPEARANCE** | Red and Black plastics cement and metal shell |
| **PHYSICAL STATE** | Solid |
| **ODOR** | Odorless |
| **ODOR THRESHOLD** | Not available |
| **SPECIFIC GRAVITY** | Not available |
| **VISCOSITY** | Not available |
| **BOILING POINT** | Not available |
| **MELTING POINT** | Greater than $300^{0}$C |
| **DROPPING POINT** | Not available |
| **FLASH POINT** | Not available |
| **PH VALUE** | 8-9 |
| **EVAPORATION RATE** | Not available |
| **FLAMMABILITY** | Not available |
| **AUTO IGNITION TEMPERATURE** | Not available |
| **FLAMMABLE LIMITS** | Not available |
| **VAPOR PRESSURE** | Not available |
| **VAPOR DENSITY** | Not available |
| **DECOMPOSITION TEMPERATURE** | Partially |
| **SOLUBILITY IN WATER** | Partially soluble in water |
| **PARTITION COEFFICIENT** | Not available |
| **BIODEGRADABILITY** | Not classified as biodegradable |

## SECTION 10: STABILITY AND REACTIVITY

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|---|---|
| **CHEMICAL STABILITY:** | Stable under normal temperatures and pressures. |
| **CONDITIONS TO AVOID:** | Avoid exposure to heat and open flame. Avoid mechanical or electrical abuse. Prevent short circuits. Prevent movement which could lead to short circuits. |
| **MATERIALS TO AVOID:** | Strong oxidizing agents, Corrosives. |
| **HAZARDOUS POLYMERIZATION:** | Will not occur. |
| **HAZARDOUS DECOMPOSITION PRODUCTS:** | Metal oxides, CO, CO2. |
| **POSSIBILITY OF HAZARDOUS REACTIONS:** | Not available |

## SECTION 11: TOXICOLOGICAL INFORMATION

Information on the likely routes of exposures

### ACUTE DOSE EFFECTS A: GENERAL PRODUCT INFORMATION

If product is ruptured, material may cause irritation to the skin, eyes and respiratory tract.

### B: COMPONENT ANALYSIS - LD50/LC50

No LD50/LC50's are available for this product's components.

### CARCINOGENICITY A: GENERAL PRODUCT INFORMATION

No information available for the product.

### B: COMPONENT CARCINOGENICITY

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP

### ACUTE SYMPTOMS AND EFFECTS:

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|---|---|
| **ACUTE TOXICITY:** | No further toxicological data known |
| **SKIN/CORROSION/IRRITATION** | The electrolyte in the battery can cause skin irritation |
| **SERIOUS EYE DAMAGE/ IRRITATION** | The electrolyte in the battery can cause eye irritation |
| **RESPIRATORY SENSITIZATION:** | No further toxicological data known |
| **CARCINOGENICITY** | No further toxicological data known |
| **SKIN SENSITIZATION** | No further toxicological data known |
| **GERM CELL MUTAGENICITY** | No further toxicological data known |
| **REPRODUCTIVE TOXICITY** | No further toxicological data known |
| **SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE** | No further toxicological data known |
| **SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE** | No further toxicological data known |
| **ASPIRATION HAZARD** | No further toxicological data known |
| **OTHER:** | No further data known. |

## SECTION 12: ECOLOGICAL INFORMATION

### ECO-TOXICOLOGICAL INFORMATION:

None in routine handling of product.

### TOXICITY:

No data available

### PERSISTENCE AND DE-GRADABILITY (BIOPERSISTENCY & BIODEGRADABILITY):

None in routine handling of product.

### POTENTIAL OF BIO ACCUMULATIVE:

None in routine handling of product.

### MOBILITY IN SOIL:

None in routine handling of product.

### OTHER ADVERSE EFFECTS:

No data available

## SECTION 13: DISPOSAL CONSIDERATIONS

### COMPONENT WASTE NUMBERS

No EPA Waste Numbers are applicable for this product's components

### DISPOSAL METHOD:

Dispose in accordance with appropriate regulations. Always consult and obey all international, federal, provincial/state and local hazardous waste disposal laws. Some jurisdictions require recycling of this spent product. Battery recycling is encouraged.

Lithium ion batteries are safe for disposal in the normal municipal waste stream since they are not defined by the federal government as hazardous waste. However, Lithium ion batteries are recyclable.

This product does not contain mercury, cadmium or Lithium (metal). DO NOT INCINERATE or subject battery cells to temperatures in excess of 212°F (100°C). Environmental regulations: Follow prevailing regulations for recycling or disposal of used oils.

## SECTION 14: TRANSPORT INFORMATION

**Lithium-ion batteries comply with all applicable shipping regulations as prescribed by industry and legal standards which include UN Recommendations on the Transport of Dangerous Goods; the 63rd Edition of the IATA Dangerous Goods Regulations and US DOT requirements. Cells and Batteries have been tested to section 38.3 of the UN Recommendations on the Transport of Dangerous Goods Manual of Tests and Criteria. All the batteries listed in this Safety Data Sheet are less than or equal to 100 Wh; therefore, air shipment of up to 2 batteries without equipment in a package can be shipped as an "excepted" quantity and does not require being shipped as a fully regulated Class 9 Hazardous Material. If more than 2 batteries without equipment are being shipped in one package, using air transportation, then the package is considered a fully regulated shipment and must meet the more stringent documentation, marking, and labeling requirements. All air shipments of lithium ion batteries without equipment require the state of charge of the battery to be no greater than 30% of the rated design capacity and are banned from shipment on passenger aircraft (Cargo Aircraft Only).**

The product has passed the test i terns of UN Model Regulations, Manual of Test and Criteria Section UN 38.3 and UN Model Regulations, SP188, 1. 2m drop test. The total net weight of the Lithium batteries is less than 10 kg.

Proper Shipping Name: Lithium ion batteries UN number: UN3480 Hazard Class: 9

### BATTERIES ALONE

UN3480, Lithium Ion Batteries
Air Shipments (IATA) – Packing Instruction 965 (Section IB)
Sea Shipments (IMDG Code, 2020 Edition (including amendment 40-20) – Special Provision 188
Europe Road Transportation (ADR) – Special Provision 188
US Road Transportation (DOT) – 49 CFR 173.185(c)

### BATTERIES WITH OR IN EQUIPMENT

UN3481, Lithium Ion Batteries packed with equipment OR Lithium Ion Batteries contained in equipment.
Air Shipments (IATA) – Packing Instruction 966 or 967, Section II
Sea Shipments (IMDG Code, 2020 Edition (including amendment 40-20) – Special Provision 188
Europe Road Transportation (ADR) – Special Provision 188
US Road Transportation (DOT) – 49 CFR 173.185(c)

## SECTION 15: REGULATORY INFORMATION

**Safety, Health and Environmental Regulations:**

1. Unless be exempted according to ICAO TI, the lithium ion cell/batteries (UN 3480, PI 965) and lithium metal cell/batteries (UN 3090, PI 968) are forbidden for carriage on passenger aircraft.
2. Unless be approved according to ICAO TI, Lithium ion cells/batteries (UN3480, PI 965) must be offered for transport at a state of charge (SoC) not exceeding 30% of their rated design capacity.
3. A shipper is not permitted to offer for transport more than one (1) package prepared according to Section II of PI 965 and PI 968 in any single consignment. Not more than one (1) package prepared in accordance with Section II of PI 965 and PI 968 may be placed into an over pack.
4. Packages prepared according to Section II of PI 965 and PI 968 must be offered to the operator separately from other cargo and must not be loaded into a unit load device (ULD) before being offered to the operator.

## SECTION 16: OTHER INFORMATION

### OTHER INFORMATION

The information herein is presented in good faith and believed to be accurate as of the effective date given.
However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.
Revision Date: 13th October 2022, Update information for UN 38.3. and ADG Code 7.7

### LITERATURE REFERENCES:

Australian Work Health and Safety Regulation 2011
Safe Work Australia: Preparation of Safety Data Sheets for Hazardous Chemicals – Code of Practice; February 2016
CONCAWE – Hazard classification and labeling of petroleum substances in the European Economic Are 2012
Safe Work Australia – HSIS – Hazardous Substances Information System (Australia) – December 2015
United Nations – Globally Harmonized System of Classification and Labeling of Chemicals – 6th revised edition (2015)
Australian Code for the Transport of Dangerous Goods by Road and Rail, Edition 7.7 Update October 2020.
For detailed advice on Personal Protective equipment, refer to the following Australian Standards:
HB9 (Handbook 9) Manual of industrial personal protection.
AS 1337 Eye protectors for industrial applications.
AS 1715 Selection, use and maintenance of respiratory protective devices.
AS 1716 Respiratory protective devices.

### ABBREVIATIONS AND ACRONYMS

**N/D:** Not determined,
**N/A:** Not applicable
**ADG Code:** Australian Code for the Transport of Dangerous Goods by Road and Rail.
**AICS:** Australian Inventory of Chemical Substances.
**CAS** Number: Chemical Abstracts Service Registry Number.
**GHS:** Globally Harmonized System of Classification and Labeling of Chemicals
**HAZCHEM**: An emergency action code of numbers and letters which gives information to emergency services.
**HSIS:** Hazardous Substances Information System
**IATA:** International Air Transport Association
**IMDG:** International Maritime Dangerous Goods
**NTP:** National Toxicology Program (USA).
**SDS:** Safety Data Sheet
**SWA:** SafeWork Australia
**TWA:** Time Weighted Average.
**UN Number:** United Nations Number.
**STEL: Short term exposure limit (15 minutes)**
**WEL:** Workplace Exposure Limit
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Material Safety Data Sheets are updated frequently. Please ensure that you have a current copy.
CHEMICAL EMERGENCIES: 1 800 033 111
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## NOTES