

# SAFETY DATA SHEET

## SECTION 1 – IDENTIFICATION: PRODUCT IDENTIFIER/CHEMICAL IDENTITY

1.1 PRODUCT IDENTIFIER: Indgrease 1615WR

1.2 PRODUCT CODE: INDGR1615WR

1.3 RELEVANT IDENTIFIED USES OF THE MIXTURE AND USES ADVISED AGAINST:

RELEVANT IDENTIFIED USES: Heavy duty industrial grease.

RESTRICTIONS ON USE: None known.

1.4 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

SUPPLIER NAME: PENRITE OIL Company Pty Ltd (ABN: 25005 001 525),  
ADDRESS (Australia): 110-116 Greens Road, Dandenong South VIC, Australia, 3175  
TELEPHONE NUMBER (Australia): 1300 736 748; +61 3 9801 0877 (Int); Fax: 1800 736 748

ADDRESS (New Zealand): 75 Lady Ruby Drive, East Tamaki, Auckland, New Zealand, 2013

TELEPHONE NUMBER (New Zealand): 0800 533 698; Fax: 0800 533 698

E-MAIL: [tech@penriteoil.com](mailto:tech@penriteoil.com) (Aust and NZ)

1.5 EMERGENCY TEL. NUMBER: Australia: 1300 736 748; New Zealand: 0800 533 698  
(Poisons Information Centre (Aust 131 126; NZ 0800 764 766)

1.6 HSNO DETAILS:

HSNO APPROVAL NUMBER: Not applicable.

HSNO GROUP TITLE: Not applicable.

## SECTION 2 – HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE HAZARDOUS CHEMICAL:

GHS CLASSIFICATION HAZARD

CLASS & CATEGORY: Under the Model Work Health and Safety Regulations, the product would not be classified as hazardous.

2.2 LABEL ELEMENTS INCLUDING PRECAUTIONARY STATEMENTS:

SIGNAL WORD: Not Applicable.

PICTOGRAM: Not Applicable.

HAZARD STATEMENTS: Not Applicable.

PRECAUTIONARY STATEMENTS:

PREVENTION: Not Applicable.

RESPONSE: Not Applicable.

STORAGE: Not Applicable.

DISPOSAL: Not Applicable.

2.3 OTHER HAZARDS:

The mixture has a low order of toxicity associated with it. Excessive exposure may result in mild irritation to the eye, skin or respiratory system. Prolonged or repeated skin contact without proper cleaning can clog pores of the skin resulting in disorders such as oil acne/folliculitis. As for all chemical products, persons should not expose open wounds, cuts, abrasions or irritated skin to this material. High pressure injection through the skin may cause serious damage including local necrosis. Contact with molten material will require treatment by a physician for burns.

## SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	Concentration % W/W	GHS Classification*
Naphthenic acids, zinc salts	12001-85-3	< 2.5%	Chron Aq Tox 2 - H411
Complex mixture of mineral oils and additives	-	To 100%	Not Applic
Not Applic = Not Applicable			

\* Please see Section 15 of this SDS for full text description of the Label Elements.

# SAFETY DATA SHEET

## SECTION 4 – FIRST AID MEASURES

### 4.1 DESCRIPTION OF NECESSARY FIRST AID MEASURES:

**INGESTION:** Rinse mouth out with water. If a large quantity is ingested seek medical attention. It may be necessary to induce vomiting, taking extreme care that the person does not aspirate into the lungs. If irritation develops or persists or vomiting has occurred after ingestion, seek medical assistance.

**EYE:** If in eyes, hold eyelids apart and flush the eye immediately with large amounts of running water. Continue flushing for at least 15 minutes or until advised to stop by a doctor. Check for contact lenses. If there are contact lenses, these should be removed after several minutes of rinsing by the exposed person or medical personnel if it can be done easily. After flushing, if irritation develops or persists, seek medical assistance.

**SKIN CONTACT:** If skin or hair contact has occurred remove any contaminated clothing and footwear, wash skin or hair thoroughly with soap and water. If irritation develops or persists, consult a Doctor. High pressure injection through the skin requires urgent medical attention for possible incision, irrigation and/or debridement. Contact with molten material will require treatment by a physician for burns. Leave the molten material on the skin for removal by the Doctor.

**INHALATION:** If affected, remove the patient from further exposure into fresh air, if safe to do so. If providing assistance, avoid exposure to yourself - only enter contaminated environments with adequate respiratory equipment. Once removed, lay patient down in a well-ventilated area and reassure them whilst waiting for medical assistance. If not breathing, provide artificial respiration and seek immediate medical assistance. If unconscious, place in a recovery position and seek immediate medical assistance. If irritation develops or persists, consult a Doctor.

**PROTECTION FOR FIRST AIDERS:** No personnel shall place themselves in a situation that is potentially hazardous to themselves. Always ensure that you are wearing gloves when dealing with first aid procedures involving chemicals and/or blood.

**FIRST AID FACILITIES:** Eye wash fountain and safety showers are recommended in the area where the product is used.

### 4.2 MOST IMPORTANT SYMPTOMS & EFFECTS, BOTH ACUTE & DELAYED, CAUSED BY EXPOSURE:

**ACUTE:** Ingestion or inhalation of vapours may lead to irritation of the mouth and respiratory tract. Eye contact may lead to localised burning, redness and tearing. Skin contact may lead to redness or itching. **CAUTION:** High pressure injection through the skin requires urgent medical attention for possible incision, irrigation and/or debridement. **CAUTION:** Contact with molten material will require treatment by a physician for burns. Leave the molten material on the skin for removal by the Doctor.

**CHRONIC:** Skin contact may aggravate/exacerbate existing skin conditions, such as dermatitis.

### 4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NECESSARY:

**ADVICE TO DOCTOR:** Treat symptomatically. As the product is hydrocarbon based, if vomiting has occurred after ingestion, the patient should be monitored for adverse effects. High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function. As high pressure injection entry points are usually small, surgical examination to determine the extent of the grease injection may be necessary. Local anaesthetics and hot compresses should be avoided as they may contribute to swelling, vasospasm and ischaemia.

# SAFETY DATA SHEET

## SECTION 5 – FIRE FIGHTING MEASURES

### 5.1 EXTINGUISHING MEDIA:

**SUITABLE MEDIA:** Use extinguishing media appropriate for surrounding fire. Use carbon dioxide, foam or dry chemical. Spray down fumes resulting from fire.

**UNSUITABLE MEDIA:** Avoid using full water jet directed at residual material that may be burning. Water may cause splattering on hot grease.

### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

**COMBUSTION HAZARDS:** Combustion may produce oxides of carbon as well as small amounts of sulphur, metal oxides, smoke and irritating vapours.

### 5.3 ADVICE FOR FIREFIGHTERS:

**FIRE:** This product is not flammable under conditions of use. It is a hydrocarbon-based, combustible semi-solid that will burn if preheated to decomposition. Keep storage tanks, pipelines, fire exposed surfaces, etc. cool with water spray.

**HAZCHEM CODE:** Not applicable.

**EXPLOSION:** There is no information to indicate that the product is an explosion hazard. Extinguish all sources of flame or spark. Closed containers may explode when exposed to extreme heat.

**PROTECTIVE EQUIPMENT:** In the event of a fire, wear full protective clothing and self-contained breathing equipment with full-face piece operated in the pressure demand or other positive pressure mode.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

**PERSONAL PROTECTION:** For small spills, wear PVC, Nitrile or neoprene gloves, glasses/goggles (or a face shield for high temperature or pressure operations), boots and full-length clothing. During routine operation a respirator is not required. However, if mists or vapours are generated, an approved organic vapour/particulate respirator is required. For large spills, or in confined spaces, a full chemically resistant body-suit is recommended and the atmosphere must be evaluated for oxygen deficiency. If in doubt wear self-contained breathing apparatus.

**CONTROL MEASURES:** Ventilate area and extinguish and/or remove all sources of ignition. Stop the leak if safe to do so. CAUTION: The spilled product will be slippery. Avoid contact with the spilled material.

**EMERGENCY PROCEDURES:** In the event of a spill or accidental release, notify the relevant authorities in accordance with all applicable regulations.

### 6.2 ENVIRONMENTAL PRECAUTIONS:

**SPILL ADVICE:** Do not allow product to enter drains, surface water, sewers or watercourses - inform local authorities if this occurs.

### 6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:

**CONTAINMENT:** Spills are easy to contain because of the nature of the product. The material will not flow unless heated.

**CLEANING PROCEDURES:** Shovel the product into metal containers. Follow local regulations for the disposal of waste. For large spills, the material can be collected and returned for reprocessing or destruction. Personnel must wear gloves, goggles or glasses, boots and full-length clothing during cleaning procedures. Wash contaminated area and objects with detergent and water after spill has been cleared. Rinse the cleaned area with water. Do not allow wash water or rinsings to enter drains, surface water, sewers or water courses.

# SAFETY DATA SHEET

## SECTION 7 – HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

### 7.1 PRECAUTIONS FOR SAFE HANDLING:

**SAFE HANDLING:** Avoid contact with the product by using appropriate protective equipment such as gloves, glasses or goggles (or a face shield for high temperature or pressure operations) and full-length clothing. Prevent small spills and leakage to avoid slip hazards. Properly dispose of any contaminated rags or cleaning materials in order to prevent fire hazards. Eating, drinking, and smoking should be prohibited in the area where this material is handled, stored and processed. Workers should follow good personal hygiene practices, such as washing hands before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Keep containers tightly closed when not in use. Prevent product from entering waterways, drains or sewers.

### 7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

**SAFE STORAGE:** This product is a hydrocarbon-based, combustible semi-solid that will burn if preheated. Store in a well ventilated area away from direct sunlight, ignition sources, oxidising agents, foodstuffs and clothing. Keep containers closed when not in use. Containers that have been opened must be carefully resealed and kept upright. Do not store in plastic containers unless approved for the application.

**INCOMPATIBILITIES:** Strong oxidizing substances including strong acids.

## SECTION 8 – EXPOSURE CONTROLS & PERSONAL PROTECTION

### 8.1 EXPOSURE CONTROL MEASURES:

**EXPOSURE LIMIT VALUES:** Exposure standards for the product have not been established. However, if the material is subjected to elevated temperatures, and oil mists or vapours are generated the following Exposure Standard should be observed:

TWA: 5 mg/m<sup>3</sup>  
STEL: 10 mg/m<sup>3</sup> (ACGIH)

### 8.2 BIOLOGICAL MONITORING:

No data available.

**8.3 CONTROL BANDING:** No data available.

### 8.4 ENGINEERING CONTROLS:

**ENGINEERING CONTROLS:** Special ventilation is not normally required. However, in the operation of certain equipment or at elevated temperatures mists or vapour may be generated and local exhaust ventilation should be provided to maintain airborne concentration levels below the nominated exposure standard and at an acceptable level that does not cause irritation.

### 8.5 INDIVIDUAL PROTECTION MEASURES:

**EYE & FACE PROTECTION:** Wear safety glasses/goggles to avoid eye contact when handling. If the product is used at elevated temperature/pressures, a full face shield is recommended. Use eye protection in accordance with AS 1336 and AS 1337.

**SKIN (HAND) PROTECTION:** If there is the chance of contact with the material wear gloves to provide hand protection. Nitrile rubber, PVC or neoprene gloves are recommended.

### SKIN (CLOTHING) PROTECTION:

During normal operating procedures, long sleeved clothing is recommended to avoid skin contact. Soiled clothing should be washed with detergent prior to re-use.

**RESPIRATORY PROTECTION:** During routine operation a respirator is not required. However, if mists or vapours are generated, an approved half face organic vapour/particulate respirator is required. Use respirators in accordance with AS 1715 & AS 1716.

**THERMAL PROTECTION:** Greases may be used in elevated temperature applications. In these scenarios, select gloves according to AS 2161.4 for appropriate temperature range.

# SAFETY DATA SHEET

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 PHYSICAL AND CHEMICAL PROPERTIES:

<b>APPEARANCE:</b>	Smooth brown grease.
<b>ODOUR:</b>	Light oil odour.
<b>ODOUR THRESHOLD:</b>	No data available.
<b>pH:</b>	No data available.
<b>MELTING/FREEZING POINT:</b>	No data available.
<b>INITIAL BOILING POINT:</b>	No data available.
<b>BOILING RANGE (°C):</b>	No data available.
<b>FLASHPOINT (°C):</b>	Typically >150°C.
<b>EVAPORATION RATE:</b>	No data available.
<b>FLAMMABILITY LIMITS (%):</b>	No data available.
<b>VAPOUR PRESSURE (mmHg):</b>	No data available.
<b>VAPOUR DENSITY:</b>	No data available.
<b>DENSITY (kg/m<sup>3</sup> @ 25°C):</b>	Typically <1000 kg/m <sup>3</sup> .
<b>SOLUBILITY IN WATER (g/L):</b>	Insoluble in water.
<b>PARTITION COEFFICIENT:</b>	No data available for n-octanol/water.
<b>AUTO-IGNITION TEMP (°C):</b>	No data available.
<b>DECOMPOSITION TEMP (°C):</b>	No data available.
<b>VISCOSITY (cSt @ 100°C):</b>	No data available.
<b>VISCOSITY (cSt @ 40°C):</b>	No data available.
<b>DROP POINT (°C):</b>	Typically >260°C.

## SECTION 10 – STABILITY AND REACTIVITY

<b>10.1 REACTIVITY:</b>	The product does not pose any further reactivity hazards other than those listed in the following sub-sections.
<b>10.2 CHEMICAL STABILITY:</b>	Stable under recommended storage and handling conditions (see section 7).
<b>10.3 POSSIBILITY OF HAZARDOUS REACTIONS:</b>	Keep away from strong oxidising agents, such as strong acids, chlorates, nitrates and peroxides. Hazardous polymerisation does not occur.
<b>10.4 CONDITIONS TO AVOID:</b>	Observe the usual precautionary measures for handling chemicals. Do not heat the container or leave the container open when not in use. Avoid sources of ignition.
<b>10.5 INCOMPATIBLE MATERIALS:</b>	Strong oxidising agents including concentrated acids.
<b>10.6 HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Hazardous decomposition products are not expected to form during normal storage requirements. See Section 5.2 for Hazardous Combustion products.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

There is no data available for the product as a whole. However, based upon calculated values the manufacturer has nominated the following for the product:

Oral - LD<sub>50</sub>: 6266 mg/kg  
Dermal - LD<sub>50</sub>: 3414 mg/kg  
Inhalation - LC<sub>50</sub>: 19.04 mg/L

#### **Zinc Naphthenate**

Oral - LD<sub>50</sub> (Rat): 4920mg/kg

<b>11.2 SWALLOWED:</b>	This product is expected to have a low order of toxicity associated with it when ingested. It may cause slight irritation to the mouth, throat and digestive tract. During normal usage ingestion should not be a means of exposure.
------------------------	--

# SAFETY DATA SHEET

## SECTION 11 – TOXICOLOGICAL INFORMATION Continued

### 11.3 SKIN CORROSION/ IRRITATION:

This product is not expected to exhibit Dermal Corrosivity/Irritation according to OECD Test 404, based on the available data and the known hazards of the components. May be mildly irritating to the skin. Prolonged contact may cause redness and irritation. Correct handling procedures incorporating appropriate protective clothing and gloves should minimise the risk of skin irritation. People with pre-existing skin conditions, such as dermatitis, should take extreme care so as not to exacerbate the condition.

### 11.4 SERIOUS EYE DAMAGE/ IRRITATION:

This product is not expected to exhibit Eye Irritation or Serious Damage/Corrosivity according to OECD Test 405, based on the available data and the known hazards of the components. Expected to be practically non-irritating to the eyes. Correct handling procedures incorporating appropriate eye protection should minimise the risk of eye irritation.

### 11.5 RESPIRATORY OR SKIN SENSITISATION:

This product is not expected to be a skin sensitiser according to OECD Test 406, based on the available data and the known hazards of the components. This product is not expected to be a respiratory tract sensitiser, based on the available data and the known hazards of the components.

### 11.6 GERM CELL MUTAGENICITY:

This product is not expected to be mutagenic according to tests such as OECD Tests 471, 475, 476, 478 and 479, based on the available data and the known hazards of the components.

### 11.7 CARCINOGENICITY:

This product is not expected to be a carcinogen according to OECD Test 451, based on the available data and the known hazards of the components. Long term animal experiments have shown that any health risks are associated with the level of aromatic and polycyclic constituents in the product. These constituents are removed during the manufacturing process to a level at which no health risks are expected as a result of normal handling.

### 11.8 REPRODUCTIVE TOXICITY:

This product is not expected to be a reproductive hazard according to tests such as OECD Tests 414 and 421, based on the available data and the known hazards of the components.

### 11.9 SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE:

There is no data available for the product as a whole. This product is not expected to cause organ damage from a single exposure, based on the available data and the known hazards of the components. Negligible irritation hazard at ambient temperature or under normal handling conditions. Inhalation of vapours or mist (generated at elevated temperatures or by mechanical action) may cause irritation to the nose and throat.

### 11.10 SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE:

This product is not expected to cause organ damage from prolonged or repeated exposure according to tests such as OECD Tests 410 and 412, based on the available data and the known hazards of the components.

**11.11 ASPIRATION HAZARD:** This product is not expected to be an aspiration hazard, based on the available data and the known hazards of the components. However, as the product is hydrocarbon based, if vomiting has occurred after ingestion, the patient should be monitored for adverse effects.

**11.12 OTHER INFORMATION:** Used greases may contain harmful impurities that can accumulate during usage. Due to the use of greases in different types of equipment the types of impurities that accumulate during its usage are unknown. Therefore, all used greases should be handled with caution and skin contact should be avoided by wearing suitable gloves, such as those made of Nitrile rubber, PVC or neoprene. High pressure injection through the skin, when using apparatus such as grease guns, may lead to local necrosis if the product is not surgically removed.

# SAFETY DATA SHEET

## SECTION 12 – ECOLOGICAL INFORMATION

- 12.1 ECOTOXICITY:** There is no data available for the product as a whole. However, zinc naphthenate is rated as Toxic to aquatic life with long lasting effects. Based upon calculated values, the manufacturer states that the overall product would not be expected to be rated.
- 12.2 PERSISTENCE & DEGRADABILITY:** Based on the available data and the known hazards of the components and similar products the product is not expected to be readily biodegradable. Major constituents are expected to be inherently biodegradable, however the product contains components that may persist in the environment.
- 12.3 BIOACCUMULATIVE POTENTIAL:** The manufacture states that the material does not readily bioaccumulate.
- 12.4 MOBILITY IN SOIL:** The product is a semi-solid under normal environmental conditions and will float on water. If it comes into contact with soil, it is expected to adsorb to soil particles and will therefore not be mobile.
- 12.5 OTHER ADVERSE EFFECTS:** Based on the available data and the known hazards of the components and similar products the product is not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential. The product is a mixture of non-volatile components, which are not expected to be released to the air in any significant amounts. The product will float on water.

## SECTION 13 – DISPOSAL CONSIDERATIONS

- 13.1 DISPOSAL METHODS:  
PRODUCT:** The product should not be released to the environment, so any unused material should be recycled wherever possible or be disposed of as hazardous waste at an appropriate collection depot. If this is not possible, the product is also suitable for incineration at very high temperatures to prevent formation of undesirable combustion products. Spilled product that cannot be recovered should be shovelled into a suitable waste container, such as a plastic drum and then be treated as a solid waste. Follow Government regulations for disposal of such waste. All unused, waste or spilled product must be taken for recycling or disposal by suitably licensed contractors in accordance with Government regulations.
- CONTAINERS:** Empty containers may contain residual grease. They should be stored until reconditioned or disposed of. Empty drums should be taken for recycling or disposal through suitably licensed contractors in accordance with Government regulations. Where the containers are of metal construction they should not be pressurised, cut by a grinder, welded, brazed, soldered, drilled or exposed to heat, flames or other sources of ignition. Closed metal containers when exposed to such conditions/treatment may explode causing serious injury or death.

# SAFETY DATA SHEET

## SECTION 14 – TRANSPORT INFORMATION

This product is not regulated for land, sea or air transportation. (HS Code: 2710.19.44.00)

### 14.1 LAND (ADG Code):

**UN NUMBER:** Not applicable  
**UN PROPER SHIPPING NAME:** Not applicable  
**TRANSPORT HAZARD CLASS(ES):** Not applicable  
**PACKAGING GROUP:** Not applicable  
**ENVIRONMENTAL HAZARDS:** Not applicable  
**SPECIAL PRECAUTIONS FOR USER:** Not applicable  
**HAZCHEM CODE:** Not applicable

### 14.2 SEA (IMDG):

**UN NUMBER:** Not applicable  
**UN PROPER SHIPPING NAME:** Not applicable  
**TRANSPORT HAZARD CLASS(ES):** Not applicable  
**PACKAGING GROUP:** Not applicable  
**ENVIRONMENTAL HAZARDS:** Not applicable  
**SPECIAL PRECAUTIONS FOR USER:** Not applicable

### 14.3 AIR (IATA):

**UN NUMBER:** Not applicable  
**UN PROPER SHIPPING NAME:** Not applicable  
**TRANSPORT HAZARD CLASS(ES):** Not applicable  
**PACKAGING GROUP:** Not applicable  
**ENVIRONMENTAL HAZARDS:** Not applicable  
**SPECIAL PRECAUTIONS FOR USER:** Not applicable

## SECTION 15 – REGULATORY INFORMATION

### 15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS:

#### APPLICABLE REGULATIONS:

**SUSMP:** Not scheduled.  
**AICS:** All ingredients are on the AICS List.  
**MONTREAL PROTOCOL:** Not applicable to this product.  
**STOCKHOLM CONVENTION:** Not applicable to this product.  
**ROTTERDAM CONVENTION:** Not applicable to this product.  
**BASEL CONVENTION:** Not applicable to this product.  
**INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS (MARPOL):** Not determined.

#### OTHER REGULATORY INFORMATION:

#### GHS CLASSIFICATION HAZARD CLASS & CATEGORY

**AND HAZARD STATEMENT:** Chronic Aquatic Toxicity Category 2; H411 - Toxic to aquatic life with long lasting effects.

**HSNO APPROVAL NUMBER:** Not applicable.

**HSNO GROUP TITLE:** Not applicable.



# SAFETY DATA SHEET

## SECTION 16 – ANY OTHER RELEVANT INFORMATION

### SDS INFORMATION:

Date of SDS Preparation: 26<sup>th</sup> July 2016

Revision: 0.1

REVISION CHANGES: Changes to supplier information and addition of HSNO number in Section 1.

### ACRONYMS:

SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
CAS Number	Chemical Abstracts Service Registry Number
EINECS	European Inventory of Existing Commercial Chemical Substances
UN Number	United Nations Number
OSHA	Occupational Safety and Health Administration
ACGIH	American Conference of Governmental Industrial Hygienists
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
IUCLID	International Uniform Chemical Information Database
RTECS	Registry of Toxic Effects of Chemical Substances
%W/W	Percent weight for weight
OECD	Organisation for Economic Co-Operation and Development
ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
HAZCHEM Code	Emergency action code of numbers and letters which gives information to emergency services
NOHSC	National Occupational Health and Safety Commission
AICS	Australian Inventory of Chemical Substances
TWA	Time-Weighted Average
STEL	Short term Exposure Limit
HSNO	Hazardous Substances and New Organisms Act 1996
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
PICCS	Philippines Inventory of Chemicals and Chemical Substances
WHS	Work Health and Safety
PPE	Personal Protective Equipment.

### LITERATURE REFERENCES AND SOURCES OF DATA:

OECD Guidelines for Testing of Chemicals  
Annex I: OECD Test Guidelines for Studies Included in SIDS  
Manual for the Assessment of Chemicals Chapter 2 Data Gathering  
International Toxicity Testing Guidelines  
Hazardous Substance Information System - Guidance Material for Hazard Classifications  
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.  
Model Work Health and Safety Regulations.  
Model Work Health and Safety Regulations - Transitional Principles  
Workplace Exposure Standards for Airborne Contaminants  
Australian Dangerous Goods Code 7<sup>th</sup> Edition  
Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]  
Guidance on the Classification of Hazardous Chemicals under the WHS Regulations  
Assigning a Hazardous Substance to a Group Standard  
User Guide to the HSNO Thresholds and Classifications  
Summary User Guide to the HSNO Thresholds and Classifications of Hazardous Substances  
Correlation between GHS and New Zealand HSNO Hazard Classes and Categories  
HSNO Control Regulations  
Record of Group Standard Assignment  
Labelling of Hazardous Substances Hazard and Precautionary Information  
Thresholds and Classifications Under the Hazardous Substances and New Organisms Act 1996  
Workplace Exposure Standards and Biological Exposure Indices

All information contained in this Safety Data Sheet and the health, safety and environmental information are considered to be accurate to the best of our knowledge as of the issue date specified above. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the data and information contained in this data sheet.

Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Company accepts no responsibility for any injury, loss or damage, resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.