Material Safety Data Sheet

Section 1 - Identification of The Material and Supplier

Product Name:	**RED COOL 950 MG X**
Product Use:	**Antifreeze**
Supplier:	**Lubricants NZ LTD** **22 Marphona Crescent** **Takanini 2105** **NEW ZEALAND** **Phone: (09) 640 0004** **Fax: (09) 266 4004**
EMERGENCY RESPONSE:	**0800 734 607**
Creation Date:	**December, 2022**
This version issued:	**December 22** and is valid for 5 years from this date.

Section 2 - Hazards Identification

Classification of the substance or mixture	ACUTE TOXICITY (oral) - Category 4 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
GHS label elements	
Hazard pictograms	
Signal word	WARNING
Hazard Statements	H302 - Harmful if swallowed. H371 - May cause damage to organs. H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements	
General	P103 - Read label before use. P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand
Prevention	P260 - Do not breathe vapour. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling.
Response	P314 - Get medical attention if you feel unwell. P309 + P311 - IF exposed or if you feel unwell: Call a POISON CENTER or physician. P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.
Storage	P405 - Store locked up.
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	Not applicable
Other hazards which do not result in classification	None known.

Statement of Hazardous Nature
This product is classified as: Xn, Harmful.

Risk Phrases: R22. Harmful if swallowed.
Safety Phrases: S2, S46, S36/37. Keep out of reach of children. If swallowed, contact a doctor or Poisons Information Centre immediately and show this container or label. Wear suitable protective clothing and gloves.
SUSMP Classification: None allocated.

Emergency Overview

Physical Description & Colour: Red liquid.
Odour: Characteristic odour.

Major Health Hazards: Gross overexposure to Ethylene Glycol may cause pulmonary oedema (body fluid in the lungs) with cough, wheezing, abnormal lung sounds, possibly progressing to severe shortness of breath and bluish discoloration of the skin. Symptoms may be delayed. Harmful if swallowed.

Potential Health Effects

Inhalation:
Short Term Exposure: Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation. Inhalation of high concentration of aerosols may cause mild irritation of the throat.
Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:
Short Term Exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition product is unlikely to cause any discomfort in normal use.
Long Term Exposure: oil blisters may develop following prolonged and repeated exposure through contact with stained clothing.

Eye Contact:
Short Term Exposure: This product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once product is removed.
Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:
Short Term Exposure: Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.
Long Term Exposure: No data for health effects associated with long term ingestion**.**

Section 3 - Composition/Information on Ingredients

INGREDIENTS	CAS NO	CONC,%	TWA	STEL
Mono Ethylene glycol	107-21-1	>95	5	not set
sodium 2-ethylhexanoate	19766-89-3	<5	not set	not set
Other non hazardous ingredients	various	To 100		

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Skin Contact: Gently blot away excess liquid. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.
Eye Contact: Quickly and gently blot material from eyes. No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.
Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Section 5 - Fire Fighting Measures

Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Combustion products may include the following: carbon oxides (CO, CO2) (carbon monoxide, carbon dioxide)
Special protective actions for fire-fighters	No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.
Special protective equipment for fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout

gear.

Section 6 - Accidental Release Measures

Accidental release:
Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include nitrile, neoprene. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the NZ Standards.
Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Can be slippery on floors, especially when wet. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use.
Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 10 of this MSDS for details of personal protective measures, and make sure that those measures are followed.
Storage: Store packages of this product in a cool place. Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under "Incompatibilities. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **NZS 1715**, Protective Gloves: **NZ 2161**, Occupational Protective Clothing: **NZS 4501** Industrial Eye Protection: **NZS 1337**, Occupational Protective Footwear: **NZS2210**.

Exposure Limits	**TWA (mg/m^3)**	**STEL (mg/m^3)**
Oil, mineral	5 (mist)	10

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.
Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.
Eye Protection: Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.
Skin Protection: The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.
Protective Material Types: We suggest that protective clothing be made from the following materials: nitrile, neoprene.
Respirator: Usually, no respirator is necessary when using this product.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Red liquid.
Odour:	Characteristic odour.
Boiling Point:	Not available.
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatiles:	No data.
Vapour Pressure:	No data.
Vapour Density:	No data.
Specific Gravity:	1.105-1.125 at 15°C
Water Solubility:	Completely soluble.
pH:	8.3 (50% in water)
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data
Autoignition temp:	No data

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Containers should be kept dry.
Incompatibilities: strong oxidising agents.
Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide, various hydrocarbons, aldehydes and smoke. Water is also formed. Small quantities of oxides of nitrogen, sulfur, zinc and phosphorus. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Toxicity: Repeated ingestion exposure to Ethylene Glycol caused histopathological changes of the kidneys and bone marrow, kidney effects with oxalate crystal deposition, altered haematology, and decreased body weight. Long-term exposure caused kidney effects with oxalate crystal deposition, histopathological changes of the kidneys, liver, blood vessels, testes, and sperm, and decreased body weight. No deaths occurred in animals exposed by inhalation to saturated vapours of Ethylene Glycol. Repeated inhalation exposure caused histopathological changes of the liver and lungs, eye irritation and clouding of the eye (corneal opacity). In animal testing Ethylene Glycol has not caused carcinogenicity. Reproductive data on adult animals show interference with reproduction only at levels which produce other toxic effects in the adult animal. Tests have shown Ethylene Glycol to cause developmental toxicity in animals. Ethylene Glycol has not produced genetic damage in bacterial cultures. There are reports indicating that Ethylene Glycol does not produce genetic damage in some animal or mammalian cell culture tests, however there are reports in the literature that suggest positive results.

Ingestion, comments:

Ingestion constitutes the main danger because of the toxicity of ethylene glycol.
Acute intoxication is particularly dangerous for children.
Ingestion is followed first by digestive disorders (nausea, vomiting, abdominal pain), then by loss of muscular coordination, convulsions, headaches and dizzy spells, preceding serious nervous disorders.
This develops into a state of torpor and then coma, at times accompanied by convulsions.
High metabolic acidosis (oxalic acid) leads to affliction of the renal ducts, with anuresis.
Intoxication can lead to a coma with metabolic acidosis that may be fatal.
The minimum lethal dose known for humans is 100 ml of ethylene glycol. But there are also cases known of humans who survived intoxications with more than 1000mL ethylene glycol (source: BIA-Gestis data base, Germany).

Section 12 - Ecological Information

Comments about ecotoxicity:
Experimental data on the finished product are not available.
It is considered to present little danger for aquatic life. No information available for used product.
Mobility
Air: There is a slow loss by evaporation.
Soil: Given its physical and chemical characteristics, the product generally shows little mobility in the ground.
Water: The product is insoluble; it spreads on the surface of the water
Persistence and degradability: No experimental information about the finished product. However the "mineral oil" fraction of the new product is intrinsically biodegradable.
Some components of the product may not be biodegradable.

Classification of Risk Phrases

Ingredient	Risk Phrases
Ethylene Glycol	Conc>=25%: Xn; R22

Section 13 - Disposal Considerations

Disposal: This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. If neither of these options is suitable, consider controlled incineration, or landfill.

Section 14 - Transport Information

Not Classified as a Dangerous Good.

Section 15 - Regulatory Information

Classification: All of the significant ingredients in this formulation are compliant with NZS regulations.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or
completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. Lubricants NZ shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to
adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the
information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.