vertex lubricants
Oils // Grease // Coolant // Chemicals

MSDS
Material Safety Data Sheet

BLUE COOL PREMIX

SECTION 1 – IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	BLUE COOL PREMIX
Product Use:	Automotive coolant system (antifreeze/anticorrosion) concentrate.
Supplier:	Vertex Lubricants 22 Marphona Crescent Takanini 2105 Phone: 09/640 0004 Email: info@vertexlubricants.co.nz
Emergency Number:	0800 353 645
Chemical Nature:	Ethylene glycol; ethanediol
Issue Date:	8 April 2024 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 - REPEATED EXPOSURE - Category 2

GHS label elements Hazard pictograms

Signal word
WARNING

Hazard statements
H302 - Harmful if swallowed.
H373 - May cause damage to organs through prolonged or repeated exposure. (kidneys)

Precautionary statements

General
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
P301 + P312, P330 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

Storage
Not applicable.

Disposal
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations

Other hazards which do not result in classification
None known.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient name	% (w/w)	CAS number
Ethylene glycol	30-60	107-21-1
Ingredients determined to be Non-Hazardous	Balance to 100	N/A

SECTION 4 – FIRST AID MEASURES

General Information:	You should call The Poisons Information Centre if you feel that you have been poisoned, burned or irritated by this product. The number is 0800 764 766 and is available at all times. Have this MSDS with you when you call.
Inhalation:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
Eye Contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention if symptoms occur.
Ingestion:	If ingested, call a physician or Poison Control Center immediately. Get medical attention urgently informing the doctor that a product containing ethylene glycol has been ingested and specific treatment may be required. Transport casualty together with the product container, its label, or the safety data sheet urgently to hospital. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.

Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Notes to physician Specific treatments	Ethylene Glycol: Gastric irrigation, ethanol or fomepizole may have value in treatment. Consult physician.
Protection of first aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	In case of fire, use water fog, alcohol resistant foam, dry chemical or carbon dioxide extinguisher or spray.
Unsuitable extinguishing media	Do not use a water jet.
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: metal oxide/oxides 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

Personal precautions, protective equipment, and emergency procedures

For non-emergency personnel	Contact emergency personnel. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.
For emergency responders	Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".
Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material.

SECTION 7 – HANDLING AND STORAGE

Keep containers tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse containers. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
Not suitable	Avoid excessive heat.

SECTION 8 – EXPOSURE CONTROLS AND PEROSNAL PROTECTION

Control parameters / Occupational exposure limits

Ingredient name	Ethylene glycol
Exposure limits	**Absorbed through skin.** • TWA: 10 mg/m³ 8 hours. Issued/Revised: 8/2005 Form: Particulate • STEL: 104 mg/m³ 15 minutes. Issued/ Revised: 8/2005 Form: Vapour • TWA: 52 mg/m³ 8 hours. Issued/Revised: 8/2005 Form: Vapour • TWA: 20 ppm 8 hours. Issued/Revised: 8/2005 Form: Vapour • STEL: 40 ppm 15 minutes. Issued/Revised: 8/2005 Form: Vapour Data: Safe Work Australia (Australia)
Appropriate / exposure engineering controls	All activities involving chemicals should be assessed for their risks to health, to ensure exposure is adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards. Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable

levels

Individual protection measures

Hygiene measures	Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	Safety glasses with side shields.
Hand protection	Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. Recommended: Butyl gloves. Neoprene gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions
Skin protection	The use of protective clothing is good industrial practice. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Physical state	Liquid
Colour	Blue
Odour	Typical
pH	8-9.5
Melting point	Not Available
Boiling point	107°C
Flash point	>120°C
Evaporation rate	Not Available
Lower and upper explosion limit/flammability limit	Not Available
Lower and upper explosion limit/flammability limit	Not Available
Relative Density	1.06 -1.08 g/cm^3 @20°C

SECTION 10 – STABILITY AND REACTIVITY

Reactivity	No specific test data is available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.
Chemical stability	The product is stable.
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur
Incompatible materials	Hazardous reactions are possible with concentrated mineral acids, strong oxidizing agents, alkali metals and isocyanates. Reactive or incompatible with the following materials: combustible materials
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects

Specific target organ toxicity (repeated exposure)

Name	Ethylene glycol
Category	Category 2
Route of exposure	oral
Target organs	kidneys
Information on likely routes of exposure	Routes of entry anticipated: Dermal, Inhalation.

Potential acute health effects

Eye contact	No known significant effects or critical hazards
Inhalation	Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.
Skin contact	No known significant effects or critical hazards.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact	Potential risk of transient stinging or redness if accidental eye contact occurs.
Inhalation	Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
Skin contact	Prolonged or repeated contact can de-fat the skin and lead to irritation, cracking and/ or dermatitis
General	May cause damage to organs through prolonged or repeated exposure. (kidney)
Carcinogenicity	No known significant effects or critical hazards
Mutagenicity	No known significant effects or critical hazards
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	Birth defects and decreased fetal weight have been observed in laboratory animals fed ethylene glycol in large amounts repeatedly during pregnancy.
Fertility effects	No known significant effects or critical hazards

Numerical measures of toxicity

Acute toxicity estimates

Route	Oral
ATE value	971 mg/kg

SECTION 12 – ECOLOGICAL INFORMATION

Persistence and degradability	Expected to be biodegradable.
Bio accumulative potential	This product is not expected to bioaccumulate through food chains in the environment.
Soil/water partition coefficient (K_{OC})	Not available
Mobility in soil	Spillages may penetrate the soil causing ground water contamination
Other ecological information	Miscible in water.

SECTION 13 – DISPOSAL CONSIDERATION

Disposal methods	The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Diluted fluid should not be discharged into sewage systems unless provided for by local regulations. Dispose under conditions approved by the local authority or via a licensed waste disposal contractor.
Special Precautions for Landfill or Incineration	No additional special precautions identified.

SECTION 14 – TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT	Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".
MARINE TRANSPORT	Not classified as Dangerous Goods by the criteria of the

	International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
AIR TRANSPORT	Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
Special precautions for user	Not available.

SECTION 15 – REGULATORY INFORMATION

Standard for the Uniform Scheduling of Medicines and Poisons	S5 Schedule 5 "Caution" Substances with a low potential for causing harm, the extent of which can be reduced through the use of appropriate packaging with simple warnings and safety directions on the label.
General Information	This product also contains approximately 10 ppm of bittering agent, denatonium benzoate. Consumer products - This material is a scheduled poison and must be stored, maintained, and used in accordance with the relevant regulations. Industrial Products - Labelling requirements for SUSMP do not apply to a poison that is packed and sold solely for industrial, laboratory or manufacturing use. However, this product is labelled in accordance with NOSHC National Code of Practice for labelling of workplace substances.
Model Work Health and Safety Regulations - Scheduled Substances	No listed substance
Montreal Protocol	Not listed.
Stockholm Convention on Persistent Organic Pollutants	Not listed.
Rotterdam Convention on Prior Informed Consent (PIC)	Not listed.
This material/constituent(s) is covered by the following requirements	• The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth). • HSNO Group Standard: HSR002606 - Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard.

International lists

National inventory

REACH Status	For the REACH status of this product please consult your company contact, as identified in Section 1.
Australia inventory (AIIC)	All components are listed or exempted.
Canada inventory	At least one component is not listed.
China inventory (IECSC)	All components are listed or exempted.
Japan inventory (CSCL)	All components are listed or exempted.
Korea inventory (KECI)	All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are listed or exempted.

SECTION 16 – ANY OTHER RELEVANT INFORMATION

MSDS Creation date: 8 April 2024

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

MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS

OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.