

SAFETY DATA SHEET

Section 1. Identification

Product identifier : COOLANT VCS-2 READY MIXED MIX 40/60
Product code : 24078865
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Coolant and antifreeze.

Uses advised against

Not applicable.

Supplier's details : Volvo Group Australia Pty Ltd
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Wacol QLD 4076

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Emergency telephone number (with hours of operation) : +1-300-954-583

Section 2. Hazard(s) 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 : Harmful if swallowed.
May cause damage to organs through prolonged or repeated exposure.
(kidneys) (oral)

Precautionary statements

Prevention : If medical advice is needed, have product container or label at hand. Keep out of reach of children. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

Response : IF SWALLOWED: Immediately call a POISON CENTER or doctor.

Storage : Store locked up.

Disposal : Not applicable.

Supplemental label elements : Not applicable.

Other hazards which do not result in classification : None known.

Section 3. Composition and ingredient information

Substance/mixture : Mixture
Other means of identification : Not available.

Ingredient name	% (w/w)	CAS number
ethanediol	≥30 - ≤60	107-21-1
BENZOIC ACID, SODIUM SALT	≤3	532-32-1
Aversive agent	ppm	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur. Continue to rinse for at least 10 minutes.

Inhalation : If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Skin contact : Wash contaminated skin with soap and water. Get medical attention.

Ingestion : Do not induce vomiting unless directed to do so by medical personnel. If affected person is conscious, give plenty of water to drink. Wash out mouth with water. Get medical attention immediately. (Coolant. Contains ethylene glycol)

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : May cause slight transient irritation.

Inhalation : This product is not likely to volatilise rapidly into the air because of its low vapour pressure.

Skin contact : Defatting to the skin.

Ingestion : Harmful if swallowed. Risk of intoxication.

Over-exposure signs/symptoms

Eye contact : May cause slight transient irritation. (redness)

Inhalation : May cause slight transient irritation.

Skin contact : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Ingestion : Exposure can cause stomach pains, vomiting and diarrhoea.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically.

Specific treatments : Antidote information: Ethanol

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. Refer to protective measures listed in sections 7 and 8.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media : Recommended:, CO₂, powders, Foam

Unsuitable extinguishing media : Do not use 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 : Decomposition products may include the following materials:
metal oxide/oxides
carbon oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Refer to protective measures listed in sections 7 and 8.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. 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. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Large spill : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Empty containers retain product residue and can be hazardous. Do not reuse container. Avoid contact with eyes, skin and clothing. Do not ingest. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Section 7. Handling and storage

Advice on general occupational hygiene : 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. Wash contaminated clothing before reuse. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Do not store in unlabelled containers. Keep container tightly closed. Keep container in a cool, well-ventilated area. Store in accordance with local regulations.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ethanediol	Safe Work Australia (Australia, 12/2019). Absorbed through skin. TWA: 10 mg/m ³ 8 hours. Form: Particulate STEL: 104 mg/m ³ 15 minutes. Form: Vapour TWA: 52 mg/m ³ 8 hours. Form: Vapour TWA: 20 ppm 8 hours. Form: Vapour STEL: 40 ppm 15 minutes. Form: Vapour
BENZOIC ACID, SODIUM SALT	ACGIH TLV (United States, 1/2022). Absorbed through skin. TWA: 2.5 mg/m ³ , (as benzoate) 8 hours. Form: Inhalable fraction

Biological exposure indices

No exposure indices known.

Appropriate engineering controls : Use only with adequate ventilation. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

Environmental exposure controls : Do not allow to enter drains or watercourses.

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.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166, designed to protect against liquid splashes.

Skin protection

Hand protection : For prolonged or repeated handling, use gloves : > 8 hours (breakthrough time): nitrile rubber, butyl rubber, neoprene rubber, EN374, >0.38mm

Body protection : 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.

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.

Section 8. Exposure controls and personal protection

Respiratory protection : Provide adequate ventilation.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state	: Liquid.
Colour	: Orange.
Odour	: Mild.
Odour threshold	: Not available.
pH	: 8.4
Melting point/freezing point	: -25°C (-13°F)
Boiling point, initial boiling point, and boiling range	: 177°C (350.6°F)
Flash point	: Closed cup: Not applicable.
Evaporation rate	: Not available.
Flammability	: Not available.
Lower and upper explosion limit/flammability limit	: Not available.
Vapour pressure	:

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Not applicable.						

Relative vapour density	: Not available.
Relative density	: Not available.
Density	: 1.059 g/cm ³ [20°C (68°F)]
Solubility(ies)	:

Media	Result
cold water	Soluble
hot water	Soluble

Miscible with water	: Yes.
Partition coefficient: n-octanol/water	: Not applicable.
Auto-ignition temperature	: 398°C (748.4°F)
Decomposition temperature	: Not available.
Viscosity	: Not available.
Pour point	: Not available.
Flow time (ISO 2431)	: Not available.

Particle characteristics

Median particle size	: Not applicable.
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Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid : No specific data.

Incompatible materials : Reactive or incompatible with the following materials:
strong acids
Oxidizing materials
nitrates
peroxides
chlorates

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced. Elevated temperature: Aldehydes, ketones

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethanediol	Harmful if swallowed. No applicable toxicity data	-	-	-

Conclusion/Summary : Harmful if swallowed.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
BENZOIC ACID, SODIUM SALT	Eyes - Irritant	-	-	-	-

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Eyes : Based on available data, the classification criteria are not met.

Respiratory : Based on available data, the classification criteria are not met.

Sensitisation

Not available.

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Not available.

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Carcinogenicity

Not available.

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Reproductive toxicity

Not available.

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Teratogenicity

Not available.

Conclusion/Summary

: Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
ethanediol	Category 2	oral	kidneys

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : May cause slight transient irritation.
- Inhalation** : This product is not likely to volatilise rapidly into the air because of its low vapour pressure.
- Skin contact** : Defatting to the skin.
- Ingestion** : Harmful if swallowed. Risk of intoxication.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : May cause slight transient irritation. (redness)
- Inhalation** : May cause slight transient irritation.
- Skin contact** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Ingestion** : Exposure can cause stomach pains, vomiting and diarrhoea.

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

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary** : Specific target organ toxicity (single exposure) - Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure) - May cause damage to organs through prolonged or repeated exposure if swallowed.
Aspiration hazard - Based on available data, the classification criteria are not met.
- General** : May cause damage to organs through prolonged or repeated exposure if swallowed.
- Carcinogenicity** : Not applicable.
- Mutagenicity** : Not applicable
- Reproductive toxicity** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
ethanediol	500	N/A	N/A	N/A	N/A

Section 12. Ecological information

Ecotoxicological data on the substances included in this product show that the product is not classified as harmful to the environment.

Toxicity

Product/ingredient name	Result	Species	Exposure
BENZOIC ACID, SODIUM SALT	Acute LC50 484000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Conclusion/Summary : Based on available data, the classification criteria are not met.

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Not applicable	-	-	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Not applicable	-	-	-

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Not applicable	-	-	-

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Water-soluble liquid

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Section 14. Transport information

	ADG	ADR/RID	IMDG	IATA
UN number	Not available.	Not available.	Not available.	Not available.
UN proper shipping name	Not available.	Not available.	-	Not available.
Transport hazard class(es)	Not available.	Not available.	Not available.	Not available.
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

List name	Ingredient name	Status
Not applicable	-	-

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 9/25/2023

Version : 1

Section 16. Any other relevant information

Key to abbreviations : ADG = Australian Dangerous Goods
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
SUSMP = Standard Uniform Schedule of Medicine and Poisons
UN = United Nations

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 4	Expert judgment
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2	Expert judgment

References : Not available.

▀ Indicates information that has changed from previously issued version.