

SAFETY DATA SHEET

COOLANT VCS
CONCENTRATED
22567302

Date of issue : 2018-10-22
Version : 3.01

SECTION 1: Identification

A. Product identifier

Product name : COOLANT VCS CONCENTRATED
Product no. : 22567302
Product type : Liquid.



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

Product use : Coolant and antifreeze.

C. Supplier's details :

Telephone no. :
Emergency phone :

E-mail address : sds@volvo.com
websds.volvo.com

SECTION 2: Hazards identification

A. Hazard classification : Not classified.

B. GHS label elements, including precautionary statements

Symbol :



Signal word : Warning

Hazard statements : Harmful if swallowed.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure. (kidneys)

Precautionary statements

Prevention : Keep out of reach of children.
If medical advice is needed, have product container or label at hand.
Use personal protective equipment as required.
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/physician.

Storage : Store locked up.

Disposal :

C. Other hazards which do not result in classification : Not available.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

Product code : 22567302

Ingredient name	Common name	CAS number	%
1,2-ethanediol		107-21-1	60 - 100
Hexanoic acid, 2-ethyl-, sodium salt		19766-89-3	3 - 5
Aversive agent		-	<100 ppm

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

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

SECTION 4: First aid measures

Description of first aid measures

- A. Eye contact** : In case of contact with eyes, rinse immediately with plenty of water. Get medical attention.
- B. Skin contact** : After contact with skin, wash immediately with plenty of soap and water. Remove contaminated clothing and wash it before reuse. Get medical attention.
- C. Inhalation** : If inhaled, remove to fresh air. Get medical attention.
- D. Ingestion** : Wash out mouth with water. If affected person is conscious, give plenty of water to drink. (Coolant. Contains ethylene glycol.) Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms/effects, acute and delayed

Potential acute health effects

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

Symptoms related to the physical, chemical and toxicological characteristics

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

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

- Specific treatments** : Antidote information: Ethanol
- Notes to physician** : Treat symptomatically.
- Protection of first-aiders** : Refer to protective measures listed in sections 7 and 8. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

A. Extinguishing media

- Suitable** : Recommended: , alcohol-resistant foam, CO₂, powders
- Not suitable** : Do not use water jet.

B. 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

C. Special precautions 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.

SECTION 6: Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Avoid breathing vapor 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 specialized 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".
- B. Environmental precautions** : Avoid dispersal of spilled 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).

SECTION 6: Accidental release measures

C. Methods and materials for containment and cleaning up

- 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.
- Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

A. Precautions for safe handling

- Protective measures** : Use only with adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Wear appropriate respirator when ventilation is inadequate. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Empty containers retain product residue and can be hazardous. Do not reuse container. Do not ingest. Wash thoroughly after handling. Avoid exposure during pregnancy. Do not eat, drink or smoke when using this product.
- 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.
- Conditions for safe storage, including any incompatibilities** : Do not store in unlabeled containers. Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

A. Control parameters

Occupational exposure limits

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
1,2-ethanediol	Ministry of Labor (Republic of Korea, 8/2013). CEIL: 100 mg/m ³ Form: Vapour and mists CEIL: 40 ppm Form: Vapour and mists

- B. Appropriate engineering controls** : Use only with adequate ventilation. 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.

C. Personal protective equipment

- Respiratory protection** : Provide adequate ventilation.
- Hand protection** : For prolonged or repeated handling, use gloves: nitrile rubber
- Eye 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.

SECTION 9: Physical and chemical properties

A. Appearance

- Physical state** : Liquid.
- Color** : Yellow.

- B. Odor** : Slight

- C. Odor threshold** : Not available.

- D. pH** : 8.6

- E. Melting point** : Not available.

- Pour point** : Not available.

- F. Boiling point** : >175°C (>347°F)

- G. Flash point** : Closed cup: >115°C (>239°F) [Pensky-Martens.]

- Burning time** : Not applicable.

- Burning rate** : Not applicable.

- H. Evaporation rate** : Not available.

- I. Flammability (solid, gas)** : Not available.

- J. Lower and upper explosive (flammable) limits** : Not available.

SECTION 9: Physical and chemical properties

K. Vapor pressure	: Not available.
L. Solubility	: Easily soluble in the following materials: cold water and hot water.
M. Vapor density	: Not available.
N. Density	: 1.1 g/cm ³ [20°C]
Relative density	: 1.1
O. Partition coefficient: n-octanol/water	: Not available.
P. Auto-ignition temperature	: Not available.
Q. Decomposition temperature	: Not available.
R. Viscosity	: Not available.
S. Molecular weight	: Not applicable.
SADT	: Not available.

SECTION 10: Stability and reactivity

A. Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
B. Conditions to avoid	: No specific data.
C. Incompatible materials	: Reactive or incompatible with the following materials: acids oxidizing materials
D. 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

A. Information on the likely routes of exposure

Potential acute health effects

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

Symptoms related to the physical, chemical and toxicological characteristics

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

Relevant information for the mixture and/or the ingredients is presented below.

B. Health hazards

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
1,2-ethanediol	Harmful if swallowed. No applicable toxicity data	-	-	-

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Result	Species	Dose	Exposure
Hexanoic acid, 2-ethyl-, sodium salt	-	-	Positive	-	-	Oral	-

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
1,2-ethanediol	Category 2	Oral	kidneys

General	: May cause damage to organs through prolonged or repeated exposure if swallowed. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
Mutagenicity	: Not applicable
Other information	: Adverse symptoms include the following:: kidney abnormalities and liver abnormalities.

SECTION 12: Ecological information

A. Ecotoxicity : Readily biodegradable

Relevant information for the mixture and/or the ingredients is presented below.

B. Persistence/degradability

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

C. Bioaccumulative potential

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

D. Mobility in soil

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

Mobility : Water-soluble liquid

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

SECTION 13: Disposal considerations

A. Disposal methods : 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.

B. Disposal precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	UN	IMDG	IATA
A. UN number	Not regulated.	Not regulated.	Not regulated.
B. UN proper shipping name	-	-	-
C. Transport hazard class(es)	-	-	-
D. Packing group	-	-	-
E. Environmental hazards	No.	No.	No.
F. Additional information		-	-

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 Annex II of MARPOL and the IBC Code : Not available.

SECTION 15: Regulatory information

A. Regulation according to ISHA

ISHA article 37 (Harmful substances prohibited from manufacture) : None of the components are listed.

ISHA article 38 (Harmful substances requiring permission) : None of the components are listed.

B. Regulation according to Chemicals Control Act

K-Reach Article 20 (Toxic chemicals) : Not applicable

CSCA Article 39 (Accident Precaution Chemicals) : None of the components are listed.

K-Reach Article 27 (Prohibited) : None of the components are listed.

SECTION 15: Regulatory information

K-Reach Article 27 (Restricted) : None of the components are listed.

CSCA Article 11 (TRI) : None of the components are listed.

Korea inventory : **This product is in compliance with KECI inventory.**

C. Dangerous Materials Safety Management Act : Not available.

D. Wastes regulation : Dispose of contents and container in accordance with all local, regional, national and international regulations.

E. Regulation according to other foreign laws

Europe inventory : Not determined.

United States inventory (TSCA 8b) : Not determined.

Japan inventory : Not determined.

Safety, health and environmental regulations specific for the product : No known specific national and/or regional regulations applicable to this product (including its ingredients).

SECTION 16: Other informationHistory

A. References : Not available.

B. Date of issue/Date of revision : 2018-10-22

C. Version : 3.01

D.

Notice to reader

In accordance with the provisions of Article 41, Industrial Safety and Health Act

Indicates information that has changed from previously issued version.