

Date of issue : 2012-01-26.

Version : 1.01

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier****Product name** : Coolant VCS Ready Mixed**Product no.** : 21485014**1.2 Relevant identified uses of the substance or mixture and uses advised against****Product use** : Coolant and antifreeze.**1.3 Details of the supplier of the safety data sheet****Supplier** : AB Volvo Penta
SE 405 08 Gothenburg
Sweden**Telephone no.:** : +46-31-66 67 50**E-mail address** : sds@volvo.com**1.4 Emergency telephone number****Emergency phone** : +46-31-66 67 50 (during office hours)**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****Product definition** : Mixture**Classification according to Directive 1999/45/EC [DPD]**

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Xn; R22**Human health hazards** : Harmful if swallowed.**See section 11 for toxicological information and section 12 for ecotoxicological information.**

See Section 16 for the full text of the R phrases or H statements declared above.

2.2 Label elements**Hazard symbol or symbols** :**Indication of danger** : Harmful**Risk phrases** : R22- Harmful if swallowed.**Safety phrases** : S2- Keep out of the reach of children.
S13- Keep away from food, drink and animal feeding stuffs.
S24/25- Avoid contact with skin and eyes.
S46- If swallowed, seek medical advice immediately and show this container or label.**Hazardous ingredients** : ethanediol**2.3 Other hazards****Other hazards which do not result in classification** : Not available.**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance/mixture** : Mixture

Ingredient name	Identifiers	%	<u>Classification</u>		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
ethanediol	EC: 203-473-3 CAS: 107-21-1 Index: 603-027-00-1	30 - 60	Xn; R22	Acute Tox. 4, H302 STOT RE 2, H373o	[1] [2]
Hexanoic acid, 2-ethyl-, sodium salt	EC: 243-283-8 CAS: 19766-89-3	1 - 5	Repr. Cat. 3; R63	Repr. 2, H361d	[1]

Date of issue : 2012-01-26.**1/6**

3. COMPOSITION/INFORMATION ON INGREDIENTS

			See Section 16 for the full text of the R-phrases declared above.	See Section 16 for the full text of the H statements declared above.	
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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.

Type

- [1] Substance classified with a health or environmental hazard
 [2] Substance with a workplace exposure limit
 [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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

4. FIRST AID MEASURES

4.1 Description of first aid measures

- Inhalation** : If inhaled, remove to fresh air.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Eye contact** : In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Ingestion** : Call medical doctor or poison control centre immediately. (Coolant. Contains ethylene glycol)
 Wash out mouth with water. If affected person is conscious, give plenty of water to drink. Do not induce vomiting unless directed to do so by medical personnel.
- Protection of first-aiders** : Not applicable

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Inhalation** : Slightly irritating to the respiratory system. Long-term exposure may cause headache, nausea or weakness.
- Skin contact** : Defatting to the skin.
- Eye contact** : Slightly irritating to the eyes.
- Ingestion** : Harmful if swallowed. May be fatal if swallowed. Exposure can cause stomach pains, vomiting and diarrhoea. loss of consciousness or coma

Over-exposure signs/symptoms

- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Eye contact** : May cause eye irritation.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Specific treatments** : No specific treatment.

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

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

- Hazardous combustion products** : Decomposition products may include the following materials:
 Hydrocarbon.
 carbon oxides

5.3 Advice for firefighters

- Special precautions 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.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : 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".

- 6.2 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).

6.3 Methods and materials for containment and cleaning up

- Spill** : 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). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

- 6.4 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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- Protective measures** : Avoid contact with eyes, skin and clothing. Avoid exposure during pregnancy. Wash thoroughly after handling. Avoid contact of spilt material and runoff with soil and surface waterways.
- 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 reusing.

- 7.2 Conditions for safe storage, including any incompatibilities** : Keep container tightly closed in a cool, well-ventilated place. Do not store in unlabelled containers.

7.3 Specific end use(s)

- Recommendations** : Coolant and antifreeze.
- Industrial sector specific solutions** : Not available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
ethanediol	<p>NAOSH (Ireland, 8/2007). Absorbed through skin. OELV-8hr: 10 mg/m³ 8 hour(s). Form: particulate OELV-8hr: 20 ppm 8 hour(s). Form: vapour OELV-8hr: 52 mg/m³ 8 hour(s). Form: vapour OELV-15min: 40 ppm 15 minute(s). Form: vapour</p> <p>NAOSH (Ireland, 8/2007). Absorbed through skin. Notes: OELV-15min: 104 mg/m³ 15 minute(s). Form: vapour</p>

Derived effect levels

Product/ingredient name	Type	Exposure	Value	Population	Effects
ethane-1,2-diol	DNEL	Long term Dermal	106 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	35 mg/m ³	Workers	Local
	DNEL	Long term Dermal	53 mg/kg bw/day	Man via the environment	Systemic
	DNEL	Long term Inhalation	7 mg/m ³	Man via the environment	Local

Predicted effect concentrations

No PECs available.

8.2 Exposure controls

- Appropriate engineering controls** : Provide 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.

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.

Personal protective equipment

- Respiratory protection** : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hand protection** : For prolonged or repeated handling, use gloves : neoprene , nitrile , natural rubber (latex) , or PVC .
- Eye protection** : Use safety eyewear designed to protect against splash of liquids.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Yellow.
- Odour** : Slight
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Initial boiling point and boiling range	: >175°C (>347°F)
Flash point	: Closed cup: >115°C (>239°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Burning time	: Not applicable.
Burning rate	: Not applicable.
Upper/lower flammability or explosive limits	: Not available.
Vapour pressure	: Not available.
Vapour density	: Not available.
Relative density	: 1,04
Density	: 1,04 g/cm ³ [20°C (68°F)]
Solubility	: Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2 Other information

No additional information.

10. STABILITY AND REACTIVITY

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Stable under recommended storage and handling conditions (see section 7).
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: No specific data.
10.5 Incompatible materials	: Reactive or incompatible with the following materials: acids oxidizing materials
10.6 Hazardous decomposition products	: Decomposition products may include the following materials: Hydrocarbon. carbon oxides

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Potential acute health effects

Inhalation	: Slightly irritating to the respiratory system. Long-term exposure may cause headache, nausea or weakness.
Skin contact	: Defatting to the skin.
Eye contact	: Slightly irritating to the eyes.
Ingestion	: Harmful if swallowed. May be fatal if swallowed. Exposure can cause stomach pains, vomiting and diarrhoea. loss of consciousness or coma

Over-exposure signs/symptoms

Inhalation	: No specific data.
Skin contact	: No specific data.
Eye contact	: May cause eye irritation.
Ingestion	: No specific data.

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethanediol	LDLo Oral	Human	786 mg/kg	-

Harmful or fatal if swallowed. Ingestion: kidney abnormalities Contains material which can cause birth defects.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Hexanoic acid, 2-ethyl-, sodium salt	Positive	-	-	-

Potential chronic health effects

11. TOXICOLOGICAL INFORMATION

- General** : Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
- Developmental effects** : Contains material which can cause birth defects.
- Other information** : Not available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

- Environmental effects** : Ecotoxicological data on the substances included in this product show that the product is not classified as harmful to the environment.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

- Soil/water partition coefficient (K_{oc})** : Not available.
- Mobility** : Water-soluble liquid

12.5 Results of PBT and vPvB assessment

- PBT** : Not applicable.
- vPvB** : Not applicable.

12.6 Other adverse effects

: No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

- Methods of disposal** : Waste must be disposed of in accordance with federal, state and local environmental control regulations.
- Hazardous waste** : This product is listed as Hazardous by the EU Directive on hazardous waste. Dispose of according to all national and local applicable regulations.

European waste catalogue (EWC)

Waste code	Waste designation
16 01 14*	antifreeze fluids containing dangerous substances

Packaging

- Methods of disposal** : Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : 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.

14. TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.
14.6 Special precautions for user	Not available.	Not available.	Not available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Other EU regulations

Product use : Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.
- Consumer applications, Industrial applications.

16. OTHER INFORMATION

Europe

Full text of abbreviated R phrases : R63- Possible risk of harm to the unborn child.
R22- Harmful if swallowed.

Full text of classifications [DSD/DPD] : Repr. Cat.3 - Toxic to reproduction Category 3
Xn - Harmful

Full text of abbreviated H statements : H302 Harmful if swallowed.
H361d Suspected of damaging the unborn child.
H373o May cause damage to organs through prolonged or repeated exposure if swallowed.

Full text of classifications [CLP/GHS] : Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4
Repr. 2, H361d TOXIC TO REPRODUCTION [Unborn child] - Category 2
STOT RE 2, H373o SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL [kidneys] - Category 2

History

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Conforms to 1907/2006/EC, Article 31 - Ireland

 Indicates information that has changed from previously issued version.