SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : Coolant Ready Mixed Mix 40/60

Product code : 22567233

Product description : Coolant

Product type : Liquid.

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

Identified uses

Coolant

Uses advised against

Not applicable.

1.3 Details of the supplier of the safety data sheet

AB Volvo Penta
SE-405 08 Göteborg
Sweden

e-mail address of person responsible for this SDS : sds@volvo.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : Call a POISON CENTER or doctor.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4, H302
Repr. 1B, H360D
STOT RE 2, H373

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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

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

2.2 Label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Harmful if swallowed.
May damage the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

SECTION 2: Hazards identification

Prevention : Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Response : IF exposed or concerned: Get medical advice or attention.

Storage : Not applicable.

Disposal : Not applicable.

Hazardous ingredients : ethanediol
Hexanoic acid, 2-ethyl-, sodium salt

Supplemental label elements :

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
ethanediol	REACH #: 01-2119456816-28 EC: 203-473-3 CAS: 107-21-1	≥25 - ≤50	Acute Tox. 4, H302 STOT RE 2, H373 (kidneys) (oral)	ATE [Oral] = 500 mg/kg	[1] [2]
Hexanoic acid, 2-ethyl-, sodium salt	EC: 243-283-8 CAS: 19766-89-3	≤3	Repr. 1B, H360D	-	[1]
borates, tetra, sodium salts - anhydrous	REACH #: 01-2119490790-32 EC: 215-540-4 CAS: 1330-43-4	<0.3	Repr. 1B, H360FD	-	[1]
Aversive agent	-	< 100 ppm	Acute Tox. 4, H302 Acute Tox. 4, H332 Aquatic Chronic 3, H412 **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 500 mg/kg ATE [Inhalation (vapours)] = 11 mg/l	[1]

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

SECTION 3: Composition/information on ingredients

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

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

SECTION 4: First aid measures

4.1 Description of 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. (Coolant. Contains ethylene glycol) Get medical attention immediately.

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.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

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

Inhalation : May cause damage to organs through prolonged or repeated exposure.

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.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically.

Specific treatments : Antidote information: Ethanol

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended:, CO_2, powders, Foam

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products : Decomposition products may include the following materials:
metal oxide/oxides
carbon oxides

5.3 Advice for firefighters

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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".

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 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 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.

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.

7.2 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.

7.3 Specific end use(s)

Recommendations : Coolant and antifreeze.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
ethanediol	**EU OEL (Europe, 1/2022). Absorbed through skin. Notes: list of indicative occupational exposure limit values** TWA: 20 ppm 8 hours. TWA: 52 mg/m³ 8 hours. STEL: 40 ppm 15 minutes. STEL: 104 mg/m³ 15 minutes.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
ethanediol	DNEL	Long term Dermal	106 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	7 mg/m³	General population [Consumers]	Local
	DNEL	Long term Dermal	53 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	35 mg/m³	Workers	Local
Hexanoic acid, 2-ethyl-, sodium salt	DNEL	Long term Oral	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.5 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	14 mg/m³	Workers	Systemic
borates, tetra, sodium salts - anhydrous	DNEL	Long term Oral	0.79 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	3.4 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	6.7 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	17.04 mg/m³	General population	Local
	DNEL	Long term Inhalation	17.04 mg/m³	General population	Local
	DNEL	Short term Inhalation	17.04 mg/m³	Workers	Local
	DNEL	Long term Inhalation	17.04 mg/m³	Workers	Local
	DNEL	Long term Dermal	159.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	316.4 mg/kg bw/day	Workers	Systemic

SECTION 8: Exposure controls/personal protection

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
-			

8.2 Exposure controls

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.

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.

Skin protection

Hand protection : For prolonged or repeated handling, use gloves : > 8 hours (breakthrough time): nitrile rubber> 0.4 mm (EN 374)

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.

Respiratory protection : Provide adequate ventilation. Recommended: In case of insufficient ventilation, wear suitable respiratory equipment. For example: EN 14387 Type AP2

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

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Green.

Odour : Not available.

Odour threshold : Not available.

Melting point/freezing point : -25°C

Initial boiling point and boiling range : >100°C (>212°F)

Flammability (solid, gas) : Not available.

Upper/lower flammability or explosive limits : Not available.

Flash point : Closed cup: Not applicable.

Auto-ignition temperature : Not applicable.

Decomposition temperature : Not available.

pH : 8

Viscosity : Not available.

Pour point : Not available.

SECTION 9: Physical and chemical properties

Solubility(ies) :

Media	Result
cold water	Easily soluble
hot water	Easily soluble

Partition coefficient: n-octanol/ water : Not applicable.

Vapour pressure : 0.002 kPa (0.015 mm Hg)

Relative density : Not available.

Density : 1.07 g/cm³

Vapour density : Not available.

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

9.2.1 Information with regard to physical hazard classes

9.2.2 Other safety characteristics

Miscible with water : Not available.

Evaporation rate : Not available.

SECTION 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:
oxidising materials

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

Conclusion/Summary : Harmful if swallowed. Risk of intoxication.

Acute toxicity estimates

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
Aversive agent	500	N/A	N/A	11	N/A

SECTION 11: Toxicological information

Irritation/Corrosion

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

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

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

Carcinogenicity

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

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Hexanoic acid, 2-ethyl-, sodium salt	-	-	Positive	Rat	Oral	-
borates, tetra, sodium salts - anhydrous	-	Positive	Positive	Rat	Oral	-

Conclusion/Summary : May damage the unborn child.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Hexanoic acid, 2-ethyl-, sodium salt	Positive - Oral	Rat	-	-
borates, tetra, sodium salts - anhydrous	Positive - Oral	-	-	-

Conclusion/Summary : May damage the unborn child.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

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 damage to organs through prolonged or repeated exposure.

SECTION 11: Toxicological information

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. kidneys
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 : May damage the unborn child.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not applicable.

11.2.2 Other information

Not available.

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.

12.1 Toxicity

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

12.2 Persistence and degradability

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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
-	-	-	-

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
ethanediol borates, tetra, sodium salts - anhydrous	-1.36 -1.53	10 -	Low Low

12.4 Mobility in soil

SECTION 12: Ecological information

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

Mobility : Water-soluble liquid

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not applicable.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

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 : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
16 01 14*	antifreeze fluids containing hazardous 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.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	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.	No.

14.6 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.

SECTION 14: Transport information

14.7 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 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

Annex XIV

None of the components are listed.

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Toxic to reproduction	disodium tetraborate, anhydrous	Recommended	ED/69/2013	7/1/2015

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
sodium 2-ethylhexanoate	≤3	30

Labelling : Restricted to professional users.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors :

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

SECTION 15: Regulatory information

Not listed.

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox. 4, H302	Calculation method
Repr. 1B, H360D	Calculation method
STOT RE 2, H373	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

Date of issue/ Date of revision : 9/27/2023

Version : 1

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878