



SAFETY DATA SHEET

Concentrated coolant
31439821

Date of issue : 6/2/2015.
Version : 1

Section 1. Identification

Product identifier

Product name : Concentrated coolant
Product no. : 31439821
Product type : Liquid.

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

Product use : Coolant and antifreeze.

Supplier's details : Volvo Cars of North America, LLC
1 Volvo Drive
P.O. Box 914
Rockleigh, NJ 07647

Telephone no. : (201) 768-7300

In case of emergency

1-800-467-8583

NOTE: Use the 24-Hour Emergency Telephone Numbers only in the event of a chemical emergency involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to Volvo Cars of North America, LLC at (201) 768-7300 (U.S.) or (416) 493-3700 (Canada) for assistance.

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

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 4
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) (oral) - 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 if swallowed. (kidneys)

Precautionary statements

General : Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Wash hands thoroughly after handling.

Response : IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.

Storage : Not applicable.

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

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

Supplemental label elements : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

Product code : 31439821

| Ingredient name | % | CAS number |
|-----------------|----------|------------|
| 1,2-ethanediol | 60 - 100 | 107-21-1 |

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 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

- 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.
- Eye contact** : In case of contact with eyes, rinse immediately with plenty of water. Get medical attention following exposure or if feeling unwell.
- 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.

Most important symptoms/effects, acute and delayed

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.

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. Fire-fighting measures

Extinguishing media

- Suitable** : Recommended: , alcohol-resistant foam, CO₂, powders
- Not suitable** : 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 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

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 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 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).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

- 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

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not breathe vapor 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. 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

Control parameters

Occupational exposure limits

| <u>Ingredient name</u> | <u>Occupational exposure limits</u> |
|------------------------|---|
| 1,2-ethanediol | OSHA PEL 1989 (United States, 3/1989). CEIL: 50 ppm CEIL: 125 mg/m ³ Form: ACGIH TLV (United States, 4/2014). C: 100 mg/m ³ Form: Aerosol |

- 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.

Personal protective equipment

- Respiratory protection** : Provide adequate ventilation.
- Hand protection** : For prolonged or repeated handling, use gloves : Chemical-resistant gloves.
- Eye protection** : Wear eye protection. Recommended: safety glasses with side-shields

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Green. [Light]
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : 8.5
- Melting point** : <-10°C (<14°F)
- Pour point** : Not available.
- Boiling point** : >160°C (>320°F)
- Flash point** : Closed cup: >100°C (>212°F) [Pensky-Martens.]
- Burning time** : Not applicable.
- Burning rate** : Not applicable.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Solubility** : Easily soluble in the following materials: cold water and hot water.
- Vapor density** : Not available.

Section 9. Physical and chemical properties

| | |
|--|--|
| Density | : 1.1259 g/cm ³ [20°C] |
| Relative density | : Not available. |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : >200°C (>392°F) |
| Decomposition temperature | : Not available. |
| Viscosity | : Kinematic (room temperature): 0.2 to 0.3 cm ² /s (20 to 30 cSt) |
| Molecular weight | : Not applicable. |
| SADT | : Not available. |

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. |
| Conditions to avoid | : No specific data. |
| Incompatible materials | : Reactive or incompatible with the following materials: oxidizing 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

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.

Acute toxicity

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

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. |
| Mutagenicity | : Not applicable |
| Other information | : Not available. |

Section 12. Ecological information

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

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

Aquatic and terrestrial toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|----------------------------------|-------------------------|----------|
| Coolant | Acute EC50 >100 mg/l | Aquatic plants | 72 hours |
| | Acute EC50 >100 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 >100 mg/l Fresh water | Fish - Leuciscus idus | 96 hours |

Persistence/degradability

Section 12. Ecological information

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-------------------------|------|--------------------------|------|----------|
| Coolant | - | 70 % - Readily - 28 days | - | - |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Coolant | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Not available. | | | |

Mobility in soil

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

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. 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

| | DOT Classification | TDG Classification | ADR/RID | IMDG | IATA |
|----------------------------|--------------------|--------------------|----------------|----------------|----------------|
| UN number | Not available. | Not available. | Not available. | Not available. | Not available. |
| UN proper shipping name | Not available. | Not available. | Not available. | Not available. | Not available. |
| Transport hazard class(es) | Not available. | Not available. | Not available. | Not available. | Not available. |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | 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 Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : This product is in compliance with TSCA inventory.

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

SARA 302/304

Composition/information on ingredients

| Name | % | EHS | SARA 302 TPQ | | SARA 304 RQ | |
|-------------------------|---|-----|--------------|-----------|-------------|-----------|
| | | | (lbs) | (gallons) | (lbs) | (gallons) |
| No products were found. | | | | | | |

SARA 311/312

Classification : Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|----------------|----------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| 1,2-ethanediol | 60 - 100 | No. | No. | No. | Yes. | Yes. |

SARA 313

Section 15. Regulatory information

Form R - Reporting requirements : 1,2-ethanediol

Supplier notification : 1,2-ethanediol

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts : Applicable

New York : Applicable

New Jersey : Applicable

Pennsylvania : Applicable

Section 16. Other information

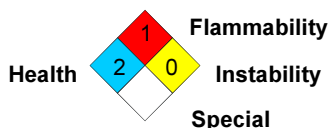
History

Date of issue/Date of revision : 6/2/2015.

Version : 1

Hazardous Material Information System (U.S.A.) : National Fire Protection Association (U.S.A.) :

| | | |
|------------------|---|---|
| Health | * | 2 |
| Flammability | | 1 |
| Physical hazards | | 0 |
| | | |



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Notice to reader

Conforms to US HCS (29 CFR 1910.1200).

☑ Indicates information that has changed from previously issued version.

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.