

Date of issue : 2016-10-06
Version : 1

Section 1. Identification

Product identifier

Product name : Volvo Automatic Transmission Fluid AT102
Product no. : 15143347
Product type : Liquid.

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

Product use : Transmission fluids

Supplier's details : Volvo Construction Equipment North America, Inc.
312 Volvo Way
Shippensburg, PA 17257
United States

Telephone no. : + 1 (877) 823-1111

In case of emergency

1-800-535-5053

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

Section 2. Hazards identification

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General : Not applicable.
Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

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

Supplemental label elements : Keep out of reach of children. If ingested, do not induce vomiting. Seek medical advice immediately. Minimise skin contact. Protect the environment. Dispose of used oil at designated sites. Do not mix used oil with solvents, brake fluids or coolants.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

Product code : 15143347

Ingredient name	%	CAS number
Distillates (Fischer-Tropsch), heavy, C18-50-branched, cyclic and linear	30 - 40	848301-69-9
Methacrylate copolymer	1 - 5	-
3-(decyloxy)tetrahydrothiophene 1,1-dioxide	0 - 1	-
dimantine	0 - 0.25	-

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.

Section 3. Composition/information on ingredients

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.
Skin contact : Wash contaminated skin with soap and water.
Eye contact : In case of contact with eyes, rinse immediately with plenty of water.
Ingestion : Get medical attention. If swallowed, 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 : Ingestion may cause gastrointestinal irritation and diarrhea.

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 : Ingestion may cause gastrointestinal irritation and diarrhea.

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

- Specific treatments** : No specific treatment.
Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Protection of first-aiders : Refer to protective measures listed in sections 7 and 8.

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:
nitrogen 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** : 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".
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

- 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** : Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid contact of spilled 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 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>
Mineral Oil, Solvent refined	CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 5 mg/m ³ 8 hours. Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Form: Mist CA Quebec Provincial (Canada, 1/2014). TWAEV: 5 mg/m ³ 8 hours. Form: mist STEV: 10 mg/m ³ 15 minutes. Form: mist CA Ontario Provincial (Canada, 7/2015). TWA: 5 mg/m ³ 8 hours. Form: mist STEL: 10 mg/m ³ 15 minutes. Form: mist

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.

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 : 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

Appearance

- Physical state** : Liquid.
- Color** : Red.
- Odor** : Petroleum oil
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Pour point** : -51 °C
- Boiling point** : >316°C (>600.8°F)
- Flash point** : Open cup: >180°C (>356°F) [Cleveland.]
- Burning time** : Not applicable.
- Burning rate** : Not applicable.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
- Lower and upper explosive (flammable) limits** : Lower: 0.9%
Upper: 7%
- Vapor pressure** : 0.013 kPa (0.1 mm Hg) [room temperature]
- Solubility** : Insoluble in the following materials: cold water and hot water.
- Vapor density** : >2 [Air = 1]
- Density** : Not available.
- Relative density** : 0.829
- Partition coefficient: n-octanol/water** : >3.5
- Auto-ignition temperature** : Not available.

Section 9. Physical and chemical properties

Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): 0.285 cm ² /s (28.5 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	: Keep away from extreme heat. Keep away from sources of ignition.
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	: Ingestion may cause gastrointestinal irritation and diarrhea.

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	: Ingestion may cause gastrointestinal irritation and diarrhea.

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

Aspiration hazard

Name	Result
Distillates (Fischer-Tropsch), heavy, C18-50-branched, cyclic and linear	ASPIRATION HAZARD - Category 1

General	: 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	: Not available.

Section 12. Ecological information

Ecotoxicity : This product shows a low bioaccumulation potential.

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

Persistence/degradability

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Distillates (Fischer-Tropsch), heavy, C18-50-branched, cyclic and linear	>6.5	-	high

Mobility in soil

Soil/water partition coefficient (K _{oc})	: Not available.
Mobility	: Non water-soluble liquid
Other adverse effects	: No known significant effects or critical hazards.

Section 13. Disposal considerations

- 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.
- Special 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

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

- Canada inventory** : This product is in compliance with DSL.
 CSCA Article 39
 (Accident Precaution
 Chemicals)

Section 16. Other information

History

- Date of issue/Date of revision** : 2016-10-06
- Version** : 1

Notice to reader

Conforms to Canada CPR

Indicates information that has changed from previously issued version.

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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.