



Better than it has to be®

# AMALIE OIL COMPANY

Better than it has to be®

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Compounding  
Blending  
Blow Molding  
Packaging

891100480

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## Safety data sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

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### 1 Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name: AMALIE DOT 4**
- **Application of the substance / the preparation** Brake fluid
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
AMALIE OIL COMPANY  
1601 McCloskey Boulevard  
Tampa, FL 33605  
Phone: 813-248-1988  
Technical or Further Information: 1-800-368-1264
- **1.4 Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924, +1 (813)248-0585

### 2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.



Xi; Irritant

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R36/38: Irritating to eyes and skin.

- **Information concerning particular hazards for human and environment:**

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

- **2.2 Label elements**

- **Labeling according to Regulation (EC) No 1272/2008**

The product is classified and labeled according to the CLP regulation.

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

- **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H304 May be fatal if swallowed and enters airways.

- **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P264 Wash thoroughly after handling.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P362 Take off contaminated clothing and wash before reuse.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P331 Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- **Hazard description:**
- **WHMIS-symbols:**  
D2B - Toxic material causing other toxic effects



### · HMIS Long Term Health Hazard Substances

None of the ingredients is listed.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

### · Dangerous components:

CAS: 30989-05-0 EINECS: 250-418-4	Triethylene glycol monomethyl ether borate ester substance with a Community workplace exposure limit	35%
CAS: 112-35-6 EINECS: 203-962-1	2-(2-(2-methoxyethoxy)ethoxy)ethanol ☒ Xi R36/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	28%
CAS: 111-46-6 EINECS: 203-872-2 Index number: 603-140-00-6	2,2'-oxybisethanol ☒ Xn R22 ⚠ Acute Tox. 4, H302	5%
CAS: 143-22-6 EINECS: 205-592-6 Index number: 603-183-00-0	2-[2-(2-butoxyethoxy)ethoxy]ethanol ☒ Xi R41 ⚠ Eye Dam. 1, H318	3%
CAS: 25322-68-3 NLP: 500-038-2	Polyethylene glycol substance with a Community workplace exposure limit	2%
CAS: 1559-34-8 EINECS: 216-322-1	3,6,9,12-tetraoxahexadecan-1-ol ☒ Xi R36/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	1%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.

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If skin irritation continues, consult a doctor.

- **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

- **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **Hazards**

Danger of pulmonary oedema.

Danger of impaired breathing.

- **4.3 Indication of any immediate medical attention and special treatment needed**

If swallowed or in case of vomiting, danger of entering the lungs.

### 5 Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

- **5.2 Special hazards arising from the substance or mixture** Carbon monoxide (CO)

- **5.3 Advice for firefighters**

- **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**

Keep away from ignition sources.

Particular danger of slipping on leaked/spilled product.

- **6.2 Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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**7 Handling and storage**

- **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.

- **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.  
Protect from heat.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:**

Store away from oxidizing agents.  
Store away from foodstuffs.

- **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.  
Store receptacle in a well ventilated area.

Keep container tightly sealed.

- **7.3 Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

<b>30989-05-0 Triethylene glycol monomethyl ether borate ester</b>
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STEL (USA)	Short-term value: 6 mg/m <sup>3</sup>
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TWA (USA)	2 mg/m <sup>3</sup>
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<b>111-46-6 2,2'-oxybisethanol</b>
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WEEL (USA)	10 mg/m <sup>3</sup>
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<b>25322-68-3 Polyethylene glycol</b>
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WEEL (USA)	10 mg/m <sup>3</sup> aerosol
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- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

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- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Neoprene gloves

Rubber gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Safety glasses

Tightly sealed goggles

Goggles recommended during refilling

- **Body protection:** Protective work clothing

### 9 Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Liquid  
**Colour:** Amber coloured

· **Odour:** Mild  
· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 8,6

- **Change in condition**

**Melting point/Melting range:** Undetermined.

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<b>Boiling point/Boiling range:</b>	> 232 °C
. <b>Flash point:</b>	132 °C (269,6°F)
. <b>Flammability (solid, gaseous):</b>	Not applicable.
. <b>Ignition temperature:</b>	210 °C
. <b>Decomposition temperature:</b>	Not determined.
. <b>Self-igniting:</b>	Product is not self-igniting.
. <b>Danger of explosion:</b>	Product does not present an explosion hazard.
. <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
. <b>Vapour pressure at 20 °C:</b>	1,3 hPa
. <b>Density at 20 °C:</b>	1,06 g/cm <sup>3</sup>
. <b>Relative density</b>	Not determined.
. <b>Vapour density</b>	Not determined.
. <b>Evaporation rate</b>	Not determined.
. <b>Solubility in / Miscibility with water:</b>	Fully miscible.
. <b>Partition coefficient (n-octanol/water):</b>	Not determined.
. <b>Viscosity:</b>	
<b>Viscosity Index:</b>	67,0
<b>Kinematic at 40 °C:</b>	6,5 cSt (1,9 cSt @ 100 °C)
. <b>Solvent content:</b>	
<b>Organic solvents:</b>	6,2 %
. <b>9.2 Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- . **10.1 Reactivity**
- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- . **10.3 Possibility of hazardous reactions** Reacts with strong oxidizing agents.
- . **10.4 Conditions to avoid**  
Keep ignition sources away - Do not smoke.  
Store away from oxidizing agents.
- . **10.5 Incompatible materials:** No further relevant information available.
- . **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

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## 11 Toxicological information

### 11.1 Information on toxicological effects

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Irritant

## 12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Moderately /partly biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## 14 Transport information

- **14.1 UN-Number**
- **DOT, ADN, IMDG, IATA**

N/A

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- |   |                 |
|---|-----------------|
| . 14.2 UN proper shipping name<br>. DOT, ADR, ADN, IMDG, IATA                     | N/A             |
| . 14.3 Transport hazard class(es)<br>. DOT, ADR, ADN, IMDG, IATA<br>. Class       | N/A             |
| . 14.4 Packing group<br>. DOT, ADR, IMDG, IATA                                    | N/A             |
| . 14.5 Environmental hazards:<br>. Marine pollutant:                              | No              |
| . 14.6 Special precautions for user   | Not applicable. |
| . 14.7 Transport in bulk according to Annex II of<br>MARPOL73/78 and the IBC Code | Not applicable. |
| . UN "Model Regulation":  | -               |

**15 Regulatory information**

- . 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- . United States (USA)
- . SARA

## . Section 355 (extremely hazardous substances):

None of the ingredients is listed.

## . Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

## . TSCA (Toxic Substances Control Act):

112-35-6 2-(2-(2-methoxyethoxy)ethoxy)ethanol

9004-74-4 Poly(ethylene glycol) methyl ether

111-46-6 2,2'-oxybisethanol

143-22-6 2-[2-(2-butoxyethoxy)ethoxy]ethanol

112-60-7 3,6,9-trioxaundecane-1,11-diol

25322-68-3 Polyethylene glycol

1559-34-8 3,6,9,12-tetraoxahexadecan-1-ol

## . Proposition 65 (California):

## . Chemicals known to cause cancer:

None of the ingredients is listed.

## . Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

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**. Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**. Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**. Carcinogenic Categories**

**. EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**. IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

**. TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

**. MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

**. NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**. OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**. Canada**

**. Canadian Domestic Substances List (DSL)**

All ingredients are listed.

**. Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

**. Canadian Ingredient Disclosure list (limit 1%)**

143-22-6 | 2-[2-(2-butoxyethoxy)ethoxy]ethanol

**. 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**. Relevant phrases**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

R41 Risk of serious damage to eyes.

**. Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals  
ACGIH: American Conference of Governmental Industrial Hygienists

• **Sources**

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This document was authored and reviewed by the technical and scientific staff at ChemTel Inc. Descriptions, classifications and calculations are based upon data provided by manufacturer and augmented by published data in conjunction with expert analysis by degreed scientists.

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