

# MATERIAL SAFETY DATA SHEET

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** alpha-Terpineol, 99%  
**Catalog Numbers:** AC301610000, AC301610250, AC301615000  
**Synonyms:** p-Menth-1-en-8-ol.  
**Company Identification:** Acros Organics BVBA  
Janssen Pharmaceuticaaan 3a  
2440 Geel, Belgium  
**Company Identification: (USA)** Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410  
**For information in the US, call:** 800-ACROS-01  
**For information in Europe, call:** +32 14 57 52 11  
**Emergency Number, Europe:** +32 14 57 52 99  
**Emergency Number US:** 201-796-7100  
**CHEMTREC Phone Number, US:** 800-424-9300  
**CHEMTREC Phone Number, Europe:** 703-527-3887

## Section 2 - Composition, Information on Ingredients

-----  
**CAS#:** 98-55-5  
**Chemical Name:** alpha-Terpineol  
**%:** 99  
**EINECS#:** 202-680-6  
-----

**Hazard Symbols:** XI



**Risk Phrases:** 38

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

Warning! Causes skin irritation. May cause central nervous system depression. Material is a solid at room temperature that melts upon moderate heating into a combustible liquid with a flash point below 200°F(93.3°C). May cause eye and respiratory tract irritation. Target Organs: Central nervous system, skin.

#### Potential Health Effects

**Eye:** May cause eye irritation. May cause chemical conjunctivitis and corneal damage.  
**Skin:** Causes skin irritation. May cause cyanosis of the extremities.  
**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause headache, weakness, ataxia (failure of muscular coordination), delirium, fever, dehydration, and hypothermia.  
**Inhalation:** May cause respiratory tract irritation. Inhalation at high concentrations may cause CNS depression and asphyxiation.  
**Chronic:** No information found.

#### Section 4 - First Aid Measures

- Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
- Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
- Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

**Notes to Physician:**

#### Section 5 - Fire Fighting Measures

- General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Containers may explode in the heat of a fire. Combustible liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.
- Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective.
- Autoignition:** Not available.
- Temperature:**
- Flash Point:** 90 deg C ( 194.00 deg F)
- Explosion:** Not available
- Limits: Lower:**
- Explosion:** Not available
- Limits: Upper:**
- NFPA Rating:** health: 1; flammability: 2; instability: 0;

#### Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

#### Section 7 - Handling and Storage

- Handling:** Wash thoroughly after handling. Use only in a well-ventilated area. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
- Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

#### Section 8 - Exposure Controls, Personal Protection

- Engineering Controls:**  
Facilities storing or utilizing this material should be equipped with an eyewash facility and a

safety shower. Use adequate ventilation to keep airborne concentrations low.

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
alpha-Terpineol	none listed	none listed	none listed

OSHA Vacated PELs: alpha-Terpineol: None listed

#### Personal Protective Equipment

- Eyes:** Wear chemical splash goggles.  
**Skin:** Wear appropriate protective gloves to prevent skin exposure.  
**Clothing:** Wear appropriate protective clothing to prevent skin exposure.  
**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### Section 9 - Physical and Chemical Properties

**Physical State:** solid or liquid  
**Color:** white  
**Odor:** Turpentine odor.  
**pH:** Not available  
**Vapor Pressure:** 1.0 mm Hg @52.8  
**Vapor Density:** >1.0  
**Evaporation Rate:** Not available  
**Viscosity:** Not available  
**Boiling Point:** 214 - 224 deg C @ 760mmHg  
**Freezing/Melting Point:** 31 deg C ( 87.80°F)  
**Decomposition Temperature:** Not available  
**Solubility in water:** slightly soluble in water  
**Specific Gravity/Density:** .9330g/cm3  
**Molecular Formula:** C10H18O  
**Molecular Weight:** 154.25

### Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat.  
**Incompatibilities with Other Materials** Strong oxidizing agents.  
**Hazardous Decomposition Products** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.  
**Hazardous Polymerization** Has not been reported.

### Section 11 - Toxicological Information

**RTECS#:** CAS# 98-55-5: WZ6700000  
**LD50/LC50:** RTECS:  
**CAS# 98-55-5:** Oral, mouse: LD50 = 2830 mg/kg;  
Oral, rat: LD50 = 5170 mg/kg;  
**Carcinogenicity:** alpha-Terpineol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
**Epidemiology:** No information found

Teratogenicity: No information found  
Reproductive: No information found  
Neurotoxicity: No information found  
Mutagenicity: No information found  
Other: See actual entry in RTECS for complete information.

### Section 12 - Ecological Information

**Ecotoxicity:** Not available  
**Other:** For more information, see "HANDBOOK OF ENVIRONMENTAL FATE AND EXPOSURE DATA."  
Fish toxicity: LC50 (96hr) rainbow trout 10-100 mg/l at 10°C static bioassay (GEMS: Graphical Exposure Modelling System 1982, US EPA, Washington, DC). Bioaccumulation: Estimated bioconcentration factor is 8.5-53 (Webb, M. et al Water Res. 1976, 10, 303).

### Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

### Section 14 - Transport Information

US DOT  
Shipping Name: Not Regulated  
Hazard Class:  
UN Number:  
Packing Group:  
Canada TDG  
Shipping Name: Not available  
Hazard Class:  
UN Number:  
Packing Group:

### Section 15 - Regulatory Information

#### US Federal

TSCA  
CAS# 98-55-5 is listed on the TSCA Inventory.

**Health & Safety Reporting List** None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules** None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b** None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule** None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs** None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances** None of the chemicals in this product have a TPQ.

**SARA Codes** CAS # 98-55-5: acute, flammable.

**Section 313** No chemicals are reportable under Section 313.

**Clean Air Act:** This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depletors. This material does not

contain any Class 2 Ozone depletors.  
**Clean Water Act:** None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**  
**STATE** alpha-Terpineol is not present on state lists from CA, PA, MN, MA, FL, or NJ.

**California Prop 65**

**California No Significant Risk Level:** None of the chemicals in this product are listed.

**European/International Regulations**

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 38 Irritating to skin.

Safety Phrases:

S 37 Wear suitable gloves.

WGK (Water Danger/Protection)

CAS# 98-55-5: Not available

Canada

CAS# 98-55-5 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B, B3

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 98-55-5 is not listed on Canada's Ingredient Disclosure List.

**Section 16 - Other Information**

**MSDS Creation Date:** 11/11/1998

**Revision #6 Date** 10/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.