



Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table><tr><td>Health Hazard</td><td>2</td></tr><tr><td>Fire Hazard</td><td>2</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	2	Fire Hazard	2	Reactivity	0	 See Section 15.
Health Hazard	2							
Fire Hazard	2							
Reactivity	0							

Section 1. Chemical Product and Company Identification

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Common Name/ Trade Name	Menthol, L	Catalog Number(s).	YY1617, M1360, ME110
		CAS#	2216-51-5; 1490-04-6 (CAS no. for Menthol)
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	RTECS	OTO700000
		TSCA	TSCA 8(b) inventory: Menthol, L
Commercial Name(s)	Not available.	CI#	Not available.
Synonym	(1alpha,2beta,5alpha)-5-Methyl-2-(1-methylethyl)cyclohexanol; (-)-Menthol; (-)-Menthyl alcohol; 1R,3R,4S)-(-)-Menthol; (1R-(1-alpha,2-beta,5-alpha))-5-Methyl-2-(1-methylethyl)cyclohexanol; Cyclohexanol, 5-methyl-2-(1-methylethyl)-, (1R,2S,5R)-; Cyclohexanol, 5-methyl-2-(1-methylethyl)-, [1R-(1.alpha.,2.beta.,5.alpha.)]-; (-)-trans-p-Methan-cis-3-ol; 1R-(-)-Menthol; (1R,2S,5R)-(-)-Menthol; (R)-(-)-Menthol; 1R-Menthol; l-Menthol; Levomenthol	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL (310) 516-8000	
Chemical Name	L-Menthol		
Chemical Family	Not available.		
Chemical Formula	C ₁₀ H ₂₀ O		
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248		

Section 2. Composition and Information on Ingredients

Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Menthol, L	2216-51-5; 1490-04-6 (CAS no. for Menthol)				100

Toxicological Data on Ingredients

Menthol, L:

ORAL (LD50): Acute: 3300 mg/kg [Rat]. 3400 mg/kg [Mouse]. 800 mg/kg [Cat].
DERMAL (LD50): Acute: >5000 mg/kg [Rabbit].

Section 3. Hazards Identification

Potential Acute Health Effects	Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention.
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
Serious Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Not available.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	Not available.
Flash Points	CLOSED CUP: 87.778°C (190°F).
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO2).
Fire Hazards in Presence of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	When heated to decomposition it emits acrid smoke and irritating fumes. COMBUSTIBLE.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill	Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	Not available.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Crystals solid.)	Odor	Peppermint like.
Molecular Weight	156.3 g/mole	Taste	Peppermint like.
pH (1% soln/water)	Not available.	Color	White.
Boiling Point	212°C (413.6°F)		
Melting Point	41°C (105.8°F) - 44 C.		
Critical Temperature	Not available.		
Specific Gravity	0.89 (Water = 1)		
Vapor Pressure	Not applicable.		
Vapor Density	5.38 (Air = 1)		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	The product is more soluble in oil; log(oil/water) = 3.3		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, diethyl ether, acetone.		
Solubility	Soluble in diethyl ether, acetone. Very slightly soluble in cold water. Very soluble in alcohol, chloroform, petroleum ether. Freely soluble in glacial acetic acid, liquid petrolatum Solubility in Water: 456 mg/l @ 25 deg. C.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Excess heat, incompatible materials
Incompatibility with various substances	Not available.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Incompatible with phenol, b-naphthol, resorcinol, thymol, potassium permanganate, chromium trioxide, pyrogallol, butylchloral hydrate, camphor, choral hydrate, exalgine, betanaphthol
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 800 mg/kg [Cat]. Acute dermal toxicity (LD50): >5000 mg/kg [Rabbit].
Chronic Effects on Humans	Not available.
Other Toxic Effects on Humans	Slightly hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	May affect genetic material (mutagenic)
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: May cause mild skin irritation. It can be absorbed through the skin. Eyes: Causes eye irritation with burning sensation without after effect. Inhalation: Inhalation of mist or vapor may cause mild respiratory tract irritation. May affect behavior/central nervous system (ataxia, confusion, irritability). Ingestion: It may affect behavior/central nervous system/peripheral nervous system (vertigo, muscle weakness hallucinations/distorted perceptions, ataxia, headache, convulsions, spastic paralysis). It may affect respiration (respiratory depression or increased respiration).

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations**Waste Disposal**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information**DOT Classification**

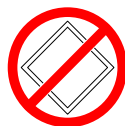
Not a DOT controlled material (United States).

Identification

Not applicable.

Special Provisions for Transport

Not applicable.

DOT (Pictograms)**Section 15. Other Regulatory Information and Pictograms****Federal and State Regulations**

TSCA 8(b) inventory: Menthol, L

California Proposition 65 Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 218-690-9).
Canada: Listed on Canadian Domestic Substance List (DSL).
China: Listed on National Inventory.
Japan: Listed on National Inventory (ENCS).
Korea: Listed on National Inventory (KECI).
Philippines: Listed on National Inventory (PICCS).
Australia: Listed on AICS.

Other Classifications**WHMIS (Canada)**

CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC)

R36- Irritating to eyes.

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

HMIS (U.S.A.)

Health Hazard	2
Fire Hazard	2
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)

Health	2	2	0	Flammability
				Reactivity
				Specific hazard

WHMIS (Canada) (Pictograms)**DSCL (Europe) (Pictograms)**

TDG (Canada)
(Pictograms)**ADR (Europe)**
(Pictograms)**Protective Equipment**

Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information**MSDS Code** M3460**References** Not available.**Other Special Considerations** Not available.

Validated by Sonia Owen on 11/29/2011.

Verified by Sonia Owen.

Printed 11/29/2011.

CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.