



Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table border="1" style="margin: auto;"> <tr> <td style="background-color: #00FFFF;">Health Hazard</td> <td style="text-align: center; border: 1px solid black;">2</td> </tr> <tr> <td style="background-color: #FFC0CB;">Fire Hazard</td> <td style="text-align: center; border: 1px solid black;">1</td> </tr> <tr> <td style="background-color: #FFFF00;">Reactivity</td> <td style="text-align: center; border: 1px solid black;">0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0	
Health Hazard	2							
Fire Hazard	1							
Reactivity	0							
		See Section 15.						

Section 1. Chemical Product and Company Identification		<i>Page Number: 1</i>
Common Name/Trade Name	Methyl salicylate	
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
Commercial Name(s)	Oil of Wintergreen (Synthetic); Synthetic Wintergreen Oil; Gaultheria Oil, artificial	
Synonym	2-Hydroxybenzoic acid methyl ester; Benzoic acid, 2-hydroxy-, methyl ester; o-Hydroxybenzoic acid, methyl ester; 2-Carbomethoxyphenol; 2-(Methoxycarbonyl)phenol	
Chemical Name	Salicylic acid, methyl ester	
Chemical Family	Not available.	
Chemical Formula	HOC6H4COOCH3	
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
	Catalog Number(s).	M1363, ME170
	CAS#	119-36-8
	RTECS	VO4725000
	TSCA	TSCA 8(b) inventory: Methyl salicylate
	CI#	Not available.
<u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000		

Section 2. Composition and Information on Ingredients					
Name	CAS #	<i>Exposure Limits</i>			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Methyl salicylate	119-36-8				100
Toxicological Data on Ingredients	Methyl salicylate: ORAL (LD50): Acute: 887 mg/kg [Rat]. 1110 mg/kg [Mouse]. 1300 mg/kg [Rabbit].				

Section 3. Hazards Identification	
Potential Acute Health Effects	Hazardous in case of skin contact (irritant), of eye contact (irritant). Slightly hazardous in case of ingestion, of inhalation.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. 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	In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
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. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	454°C (849.2°F)
Flash Points	CLOSED CUP: 96°C (204.8°F).
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of open flames and sparks, of heat.
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	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal. 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 gas/fumes/vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as alkalis.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	Splash Goggles. Synthetic apron. Gloves (impervious). Respiratory protection is not necessary for normal handling. Adequate general (room) ventilation or local exhaust (fume hood) is sufficient. Use a vapor respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapor, inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. 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	Liquid. (Oily liquid.)	Odor	Characteristic odor of Wintergreen
Molecular Weight	152.14 g/mole	Taste	Characteristic taste of Wintergreen
pH (1% soln/water)	Not available.	Color	Colorless to yellow or reddish
Boiling Point	220°C(428°F) - 224 C.		
Melting Point	-8.6°C (16.5°F)		
Critical Temperature	Not available.		
Specific Gravity	1.18 - 1.185 @ 25 deg. C.(Water = 1)		
Vapor Pressure	<0.1 kPa (@ 20°C) 1 mm Hg at 54 deg C.; 0.0343 mm Hg at 25 deg. C.; < 0.0343 mm Hg at 20 deg. C.		
Vapor Density	5.25 (Air = 1)		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	The product is more soluble in oil; log(oil/water) = 2.5		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, diethyl ether.		
Solubility	Soluble in diethyl ether. Very slightly soluble in cold water. Soluble in most organic solvents. Soluble in Chloroform. Miscible with alcohol, glacial Acetic acid. Solubility in Water: 0.74%		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Heat, ignition sources (flames, sparks, etc.), incompatible materials
Incompatibility with various substances	Reactive with oxidizing agents, alkalis
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Sensitive to heat Sensitive to light.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Eye contact.
Toxicity to Animals	Acute oral toxicity (LD50): 887 mg/kg [Rat].
Chronic Effects on Humans	MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.
Other Toxic Effects on Humans	Hazardous in case of skin contact (irritant). Slightly hazardous in case of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Lethal Dose/Conc 50% Kill: LD50 [Guinea Pig] - Route: Oral; Dose: 700 mg/kg LD50 [Dog] - Route: Oral; Dose: 2100 mg/kg LDL (Lowest Published Lethal Dose): LDL [Human] - Route: Oral; Dose: 506 mg/kg LDL [Man] - Route: Oral; Dose: 101 - 1329 mg/kg LDL [Woman] - Route: Oral; Dose: 355 mg/kg LDL [Infant] - Route: Oral; Dose: 1480 mg/kg LDL [Child] - Route: Oral; Dose: 228 - 700 mg/kg
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects and birth defects (teratogenic). May affect genetic material (mutagenic). Human: passes the placental barrier.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes moderate to severe skin irritation. It can be absorbed through skin. Eyes: Causes mild to severe eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May be harmful if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, diarrhea, gastric ulceration, heartburn, dyspepsia, hyperpyrexia, sweating, thirst. May affect behavior/Central Nervous system (headache, excitation, dizziness, lassitude, drowsiness, mental confusion, convulsions, coma), respiration (hyperventilation, hyperpnea, dyspnea, pulmonary edema), ears (ringing in the ears), eyes (dimness of vision), blood (hemorrhage). Inhalation: Inhalation of mist or vapor may cause respiratory tract irritation. Chronic Potential Health Effects: Ingestion: Prolonged or repeated ingestion may cause weight loss, and also affect the blood (changes in white and red blood cell count), urinary system (kidneys), heart, liver, musculoskeletal system as well as other symptoms similar to acute ingestion. Inhalation: Prolonged or repeated inhalation may affect the blood (changes in red and white cell blood count)

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 products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation

1. TERRESTRIAL FATE: If released on soil, methyl salicylate would readily leach. It would also be expected to partially volatilize from dry soil and photolyze on the soil surface. Based on the results of screening tests, it would be expected to readily biodegrade. Chemical hydrolysis may be important in alkaline soil. (SRC) [Peer Reviewed]

2. AQUATIC FATE: Methyl salicylate is readily biodegradable in screening tests and may be expected to biodegrade in surface waters. Methyl salicylate is expected to hydrolyze in water, the hydrolysis rate increasing with pH. At pH 7.5, its hydrolysis half-life is estimated to be 14.1 days(1,2, SRC). Methyl salicylate will react with singlet oxygen in natural surface waters resulting in a half-life of about 52 hr(3). Methyl salicylate absorbs UV radiation >290 nm and therefore may undergo direct photolysis under environmental conditions. Based on an estimated Henry's Law constant of 9.3×10^{-7} atm-cu-m/mol(4,5, SRC), a volatilization half-life of 49 days would be expected in a model river(SRC). [Peer Reviewed] [(1) Magid LJ, Larsen JW; J Org Chem 39: 3142-4 (1974) (2) Senent S et al; An Quim; 69:13-23 (1973) (3) Scully FE Jr, Hoigne J; Chemosphere 16: 681-94 (1987) (4) Daubert TE, Danner RP; Data Compilation Tables of Properties of Pure Compounds NY, NY: Amer Inst for Phys Prop Data (1989) (5) Riddick JA et al; Organic Solvents 4th ed; NY, NY: Wiley (1986)]

3. ATMOSPHERIC FATE: Methyl salicylate reacts with photochemically-produced hydroxyl radicals in the atmosphere resulting in an estimated half-life of 1.4 days(1, SRC). It is fairly soluble in water, 7400 mg/L(2) and may be washed out by rain. [Peer Reviewed] [(1) Meylan WM, Howard PH; Chemosphere 26: 2293-9 (1993) (2) Riddick JA et al; Organic Solvents 4th ed; NY, NY: Wiley (1986)]


Biodegradation:
Methyl salicylate in a five day BOD test exhibited a value of 55-57% of the theoretical BOD(1,2). Another 5-day BOD determination yielded 65% of the theoretical BOD(3). Methyl salicylate was completely degraded by a microbial mixture when incubated for 7 days at 30 deg C(4). Significant biodegradation of methyl salicylate in the environment would be expected from this result; however no data concerning biodegradation in natural waters or soil could be located. [Peer Reviewed] [(1) Maggio P et al; Ind Carta 14:105-11 (1976) (2) Maggio P et al; Tinctoria 73:15-20 (1976) (3) Crespi-Rosell M, Cegarra-Sanchez J; Bol Inst Invest Text Coop Ind 77: 41-57 (1980) (4) Goulding C et al; J Appl Bact 65: 1-5 (1988)]

(The above information was obtained from the Hazardous Substance Bank)

Section 13. Disposal Considerations

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

Rhode Island RTK hazardous substances: Methyl salicylate
 Pennsylvania RTK: Methyl salicylate
 TSCA 8(b) inventory: Methyl salicylate

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. 204-317-7).
 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)


R22- Harmful if swallowed.
 R36/38- Irritating to eyes and skin.

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S37- Wear suitable gloves.
 S46- If swallowed, seek medical advice immediately and show this container or label.

HMS (U.S.A.)

Health Hazard	2
Fire Hazard	1
Reactivity	0
Personal Protection	C

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

Health  Flammability
 Reactivity
 Specific hazard

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment



Gloves (impervious).



Synthetic apron.



Not applicable.

Splash goggles.

Section 16. Other Information**MSDS Code** M4030**References** Not available.**Other Special Considerations** Major Uses: Flavor in foods, chewing gum, beverages, pharmaceuticals; odorant, perfumery; UV-absorber in sunburn (suntan) lotions; solvent for insecticides, polishes, and inks.

Validated by Sonia Owen on 4/2/2009.

Verified by Sonia Owen.

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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.