



Material Safety Data Sheet

NFPA	HMIS	Personal Protective Equipment						
	<table><tr><td>Health Hazard</td><td>3</td></tr><tr><td>Fire Hazard</td><td>1</td></tr><tr><td>Reactivity</td><td>0</td></tr></table>	Health Hazard	3	Fire Hazard	1	Reactivity	0	 See Section 15.
Health Hazard	3							
Fire Hazard	1							
Reactivity	0							

Section 1. Chemical Product and Company Identification			Page Number: 1	
Common Name/ Trade Name	Methanesulfonic acid		Catalog Number(s).	XX846, M2017
			CAS#	75-75-2
Manufacturer	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248		RTECS	PB1140000
			TSCA	TSCA 8(b) inventory: Methanesulfonic acid; water
Commercial Name(s)	Not available.		CI#	Not available.
Synonym	Methylsulfonic acid; Methanesulphonic acid; MSA		<u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000	
Chemical Name	Methanesulfonic acid			
Chemical Family	Not available.			
Chemical Formula	CH3-SO3-H			
Supplier	SPECTRUM LABORATORY PRODUCTS INC. 14422 S. SAN PEDRO STREET GARDENA, CA 90248			

Section 2. Composition and Information on Ingredients					
		Exposure Limits			
Name	CAS #	TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	% by Weight
1) Water	7732-18-5				30
2) Methanesulfonic acid	75-75-2				69.5-70.5
Toxicological Data on Ingredients		Methanesulfonic acid: ORAL (LD50): Acute: 200 mg/kg [Rat]. 1000 mg/kg [Birds (Quail)]. DERMAL (LD50): Acute: >2000 mg/kg [Guinea pig].			

Section 3. Hazards Identification	
Potential Acute Health Effects	Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of inhalation. Slightly hazardous in case of skin contact (permeator). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

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Potential Chronic Health Effects

CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

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. Get medical attention immediately.

Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

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 immediately.

Serious Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. **WARNING:** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion

If swallowed, 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 immediately.

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: 110°C (230°F).

Flammable Limits

Not available.

Products of Combustion

These products are carbon oxides (CO, CO₂), sulfur oxides (SO₂, SO₃...).

Fire Hazards in Presence of Various Substances

Slightly flammable to flammable in presence 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	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill	Corrosive liquid. Poisonous liquid. Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

Section 7. Handling and Storage

Precautions	Keep away from heat. Keep away from sources of ignition. 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. Keep away from incompatibles such as oxidizing agents, reducing agents, 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	Face shield. Full suit. Gloves (impervious). Boots.
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.	Odor	Not available.
Molecular Weight	96.1g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Clear Colorless.
Boiling Point	Not available.		
Melting Point	18°C (64.4°F)		
Critical Temperature	Not available.		
Specific Gravity	1.345 (Water = 1)		
Vapor Pressure	<0.1 kPa (@ 20°C)		
Vapor Density	3.31 (Air = 1)		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, diethyl ether.		

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Solubility	Easily soluble in cold water. Soluble in diethyl ether. Soluble in alcohol. Water Solubility: 100% gram mole percent @ 20 deg. C. Solubility at 26-28 deg. C in Weight%: Hexane, 0; Benzene, 1.5; Methylcyclopentane, 0; Toluene, 0.38; o-Chlorotoluene, 0.23; Ethyl disulfide, 0.47.
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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	Reactive with oxidizing agents, reducing agents, metals, alkalis.
Corrosivity	Not available.
Special Remarks on Reactivity	Incompatible with amines, bases, ethyl vinyl ether, hydrofluoric acid, steel, iron, copper, copper alloys, brass, lead.
Special Remarks on Corrosivity	Corrodes steel
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Eye contact.
Toxicity to Animals	Acute oral toxicity (LD50): 200 mg/kg [Rat]. Acute dermal toxicity (LD50): >2000 mg/kg [Guinea pig].
Chronic Effects on Humans	Not available.
Other Toxic Effects on Humans	Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of inhalation (lung corrosive). Slightly hazardous in case of skin contact (permeator).
Special Remarks on Toxicity to Animals	Other Lethal Dose/Conc: LC [Rat] - Route: Inhalation: >330 ppm/6H
Special Remarks on Chronic Effects on Humans	Not available.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Corrosive. Contact with liquid causes severe skin irritation and burns. Eyes: Corrosive. Contact with liquid causes severe irritation and burns. May cause permanent eye damage. Inhalation: Inhalation of mist or vapor may cause severe irritation of the upper respiratory tract with coughing, wheezing, laryngitis, shortness of breath, pain, inflammation, edema, chemical pneumonitis, and possible burns. Ingestion: Corrosive. Harmful if swallowed. Causes severe burns of the mouth, throat, esophagus, and gastrointestinal tract (stomach). Symptoms can include sore throat, vomiting, diarrhea.

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.

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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

Class 8: Corrosive material
CLASS 6.1: Poisonous material.

Identification

: Corrosive Liquid, toxic, n.o.s. (Methanesulfonic acid) UNNA: 2922 PG: II

Special Provisions for Transport

Not available.

DOT (Pictograms)



Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

New Jersey: Methanesulfonic acid
TSCA 8(b) inventory: Methanesulfonic acid; water

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

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 200-898-6).
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 E: Corrosive liquid.

DSCL (EEC)

R34- Causes burns.

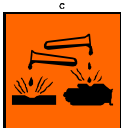
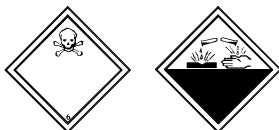
S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.)

Health Hazard	3
Fire Hazard	1
Reactivity	0
Personal Protection	

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

Health	3	0	2	Flammability
				Reactivity
				Specific hazard

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

Gloves (impervious).



Full suit.



Wear appropriate respirator when ventilation is inadequate.

Face shield.

Section 16. Other Information**MSDS Code** M3709**References** Not available.**Other Special Considerations** Uses: Methanesulfonic acid is used as a solvent, and as a catalyst in esterification, alkylation, olefin polymerization reactions, and peroxidation reactions.

Validated by Sonia Owen on 8/11/2006.

Verified by Sonia Owen.

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CALL (310) 516-8000

[Notice to Reader](#)**Continued on Next Page**

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.