

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture : Mixture

Ingredient name	CAS number	% (w/w)
methanesulphonic acid	75-75-2	30 - 60

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

Description of required first aid measures

Eye contact	In case of contact with eyes, flush with fresh water. Check for and remove any contact lenses. Continue rinsing. If irritation persists, get medical attention. Chemical burns must be treated promptly by a physician. Get medical attention if blistering occurs or redness persists.
Skin contact	Wash contaminated skin with soap and water. Remove contaminated clothing and wash it before reuse. Chemical burns must be treated promptly by a physician. Get medical attention if blistering occurs or redness persists.
Ingestion	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Chemical burns must be treated promptly by a physician. Get medical attention if symptoms occur.
Inhalation	Move victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Get medical attention if adverse health effects persist or are severe. Maintain an open airway.

Most important symptoms/effects, acute and delayed

Eye contact	Adverse symptoms may include the following: pain watering redness
Skin contact	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	Adverse symptoms may include the following: stomach pains
Inhalation	Adverse symptoms may include the following: respiratory tract irritation coughing

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See toxicological information (Section 11)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide sulfur oxides
Special fire-fighting procedures	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action should be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Initiate spill response procedures if required.
Personal protection	Put on appropriate personal protective equipment (see Section 8).
Cleaning method	Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene measures.
Storage and Incompatibility	Store in accordance with local regulations. Separate from alkalis. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep out of reach of children. Store away from incompatible materials (see Section 10).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

None.

Appropriate engineering controls	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
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Individual protection measures

Eye/face protection	Continued or severe exposures might require to wear a face shield or chemical splash goggles. It is minimally suggested to wear safety glasses while using or handling this product.
Hands and Body protection	It is suggested to wear chemical-resistant gloves while using or handling this product.
Respiratory protection	No specific protective equipment required under normal use conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid. [Limpid liquid]	pH	0.5	Flash point	[Product does not sustain combustion.]
Color	Colorless.	Relative density	1.17	Melting point	Not available.
Odor	Odorless.	Viscosity	Not available.	Boiling point	Not available.
Odor threshold	Not available.	Vapor pressure	Not available.	Fire point	: Not available.
Solubility in water	: Not available.	Vapor density	: Not available.	Evaporation rate	: Not available.
Decomposition temperature	: Not available.	Auto-ignition temperature	: Not available.		
Partition coefficient: n-octanol/water	: Not available.	Flammability (solid, gas)	: Not available.		
Lower and upper explosive (flammable) limits	: Not available.				

10. STABILITY AND REACTIVITY

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	The product is stable.
Incompatible materials	Reactive or incompatible with alkali.
Conditions to avoid	No specific data.
Possibility of hazardous reactions	May cause an exothermic reaction in presence of alkali.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Route of exposure	Routes of entry anticipated: Dermal. Routes of entry not anticipated: Oral, Inhalation.	
Eye contact	<u>Potential acute health effects</u> May cause eye burn	<u>Symptoms</u> Adverse symptoms may include the following: pain watering redness
Skin contact	May cause skin burns	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	May cause burns to mouth, throat and stomach.	Adverse symptoms may include the following: stomach pains
Inhalation	Inhalation of vapors or mist may cause respiratory tract irritation.	Adverse symptoms may include the following: respiratory tract irritation coughing

Toxicity data

Product/ingredient name	Result	Species	Dose	Exposure
methanesulphonic acid	LD50 Oral	Rat	1000 mg/kg	-

Information on toxicological effects

Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.
Sensitization	Not available.
Carcinogenicity	No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

Ecotoxicity data

No ecotoxicological data listed for any component of this product.

Persistence and degradability : Unknown **Bioaccumulative potential** : Unknown **Mobility in soil** : Unknown **Other adverse effects** : Unknown

13. DISPOSAL CONSIDERATIONS

Disposal methods : Dispose content and container in accordance with local, regional and national regulation in force.

14. TRANSPORT INFORMATION

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	TDG Placard
TDG Classification	1760	Corrosive liquid N.O.S. (methanesulphonic acid)	8	III	

Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).

Additional information : See shipping documents for specific information on DOT, IMDG or IATA

15. REGULATORY INFORMATION

Canadian lists

Canadian NPRI None of the components are listed.

CEPA Toxic substances None of the components are listed.

Canada inventory All components are listed or exempted.

International lists

United States All components are listed or exempted.

16. OTHER INFORMATION

Hazardous Material Information System (U.S.A.)

Health Hazard	2
Fire Hazard	0
Reactivity	0
Personal Protection	B

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.