



Toluene

1. Identification

Product Name: Toluene

Item #: 9905-M, DI0505022, MA0502001, MA0505006

Web SDS: S82

Synonyms: Methylbenzene; Toluol; Methylbenzol; Phenylmethane; Metacide

Recommended Use: Clearing Agent

Manufacturer:

BBC Biochemical
409 Eleanor Lane,
Mount Vernon, WA 98273
1-800-635-4477

Restrictions on Use: N/A

In Case of Emergency:

Chemtrec US 1-800-424-9300
Chemtrec International 703-527-3887

2. Hazards Identification

OSHA Hazard Classification(s):

Acute Toxicity - Oral - Category 4
Skin Irritation - Category 2
Eye Irritation - Category 2A
Toxic to Reproduction - Category 2
Specific Target Organ Toxicity (single exposure) - Category 2
Specific Target Organ Toxicity (repeated exposure) - Category 2
Flammable Liquids - Category 2

Signal Word: Danger

Hazard Statement(s): Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility of the unborn child. May cause damage to organs (central nervous system). May cause damage to organs (liver) through prolonged or repeated exposure. Highly flammable liquid and vapor.

Pictogram(s):



Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves. Wear eye protection, face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection. Do not breathe dust, vapors. Keep away from heat sources and open flame. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Response: If swallowed: Call a doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention. If exposed or concerned: Get medical attention. If exposed or concerned: Call a doctor. Call a doctor if you feel unwell. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

Storage: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A

Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %



Toluene

Toluene		108-88-3	60-100%
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4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Inhalation: Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam, water. Use water spray to cool fire-exposed containers and disperse vapors.

Fire Hazards (Chemical): OSHA classified Flammable Liquid

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Carbon monoxide and unidentified organic compounds may be formed during combustion. Vapors can travel distances to ignition source and flash back. Cool fire exposed containers with water. Fine mist or spray may be flammable at temperatures below the flash point. When heated above the flash point this material emits flammable vapors which, when mixed with air, can burn or be explosive.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flames, hot surfaces. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Storage: Store locked up. Store in a well-ventilated place. Keep cool. Store away from heat, open flame and sources of ignition.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Toluene	108-88-3	200ppm

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Toluene	108-88-3	20ppm	

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.



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Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Colorless, Liquid

Molecular Weight: 92.15

Molecular Formula: C₇H₈

pH: N/A

Boiling Point and Boiling Range: 232°F

Melting Point/Freezing Point: N/A

Flash Point: 40°F

Specific Gravity/Relative Density: 0.870

Odor: Aromatic

Odor Threshold: N/A

Color: Colorless

Flammability (solid/gas): N/A

Vapor Density: N/A

Upper/Lower flammability or explosive limits: LEL: 1.1%, UEL: 7.1%

Vapor Pressure: 21 mmHg

Evaporation Rate: N/A

Partition Coefficient: n-octanol/water: N/A

Viscosity: N/A

Auto-ignition temperature: N/A

Solubility: N/A

Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity:

Chemical Stability: Stable

Conditions of Stability/Instability: Exposure to heat or open flame.

Stabilizers needed: None

Safety issue indicated by appearance change: N/A

Other: N/A

Hazardous Reactions: N/A

Hazardous Polymerization: Does not occur

Conditions to avoid: N/A

Classes of Incompatible Materials: Oxidizers, Strong Acids, Strong Bases

Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation. Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating.

Skin: Irritation. Liquid is mildly irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Inhalation: Dizziness, headache. Vapors may be irritating to the nose, throat, and respiratory tract. High vapor concentrations may cause central nervous system (CNS) depression.

Ingestion: Liquid is moderately toxic and may be harmful if swallowed; may produce CNS depression. Ingestion of product may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspir. pneumontis.



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Signs or Symptoms of Exposure: Irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage

Effects from short term exposure (delayed, immediate, chronic): Irritation to the eyes, nose, throat; headache, dizziness, nausea.

Acute Toxicity (Numerical Measures): LD50(oral,rat)=636 mg/kg; LD50(skin,rabbit)=14100 uL/kg; LC50(ihl,rat)=49 gm/m³/4H

Carcinogenicity (NTP, IARC, OSHA): IARC Group 3 (not classifiable as to its carcinogenicity to humans)

12. Ecological Information

Ecotoxicity: Fish toxicity : 8110 ug/L 96 hour(s) LC50 (Mortality) Coho salmon, silver salmon (*Oncorhynchus kisutch*). Invertebrate toxicity : 6000 ug/L 48 hour(s) EC50 (Immobilization) Water flea (*Daphnia magna*). Algal toxicity : 9400 ug/L 8 hour(s) EC50 (Growth) Green algae (*Selenastrum capricornutum*).

Persistence and degradability: N/A

Bioaccumulation Potential (octanol-water partition coefficient, BCF): Bioconcentration : 1716 ug/L 6 hour(s) BCF (Residue) Water flea (*Daphnia magna*) 1.5 ug/L.

Mobility in the soil: N/A

Adverse Environmental Effects: Toxic to aquatic life.

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: UN1294

UN Proper Shipping Name: Toluene

Transport Hazard Class(es): 3

Packing Group Number: II

Environmental Hazards (IMDG code):

Marine Pollutant: No

Transport in Bulk (IBC Code): N/A

Special Transport Precautions: N/A

15. Regulatory Information

OSHA:

DOT:

EPA:

CPSC:



Safety Data Sheet

Toluene

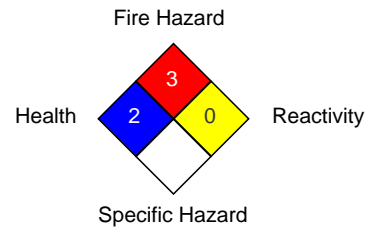
16. Other Information

Revision Date: 09/13/2017

NFPA

Health	2
Fire Hazard	3
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	2
Flammability	2
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	2
Flammability	2
Physical Hazard	0
Personal Protection	

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