

Creation date: 08-16-21

Revision date: 08-16-21

Revision number: 1.0

Section I - Product Identification

Product: Toluene.

Intended Uses: A general purpose laboratory reagent.

Uses advised against: Not for food or consumer use.

Manufacturer Identification

Medical Chemical Corp.
19430 Van Ness Ave.
Torrance, CA 90501

Customer Service: Phone (310)787-6800
Email: Christinaavena@med-chem.com
FAX (310)787-4464

Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.



Section II - Hazard Identification

This item is considered hazardous by OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquid: Category 2 (H225). Highly flammable liquid and vapor.

Eye damage/eye irritation: Category 2 (H319). Causes serious eye irritation.

Acute toxicity (Oral): Category 4 (H301). Toxic if swallowed.

Aspiration hazard: Category 1 (H331). May be fatal if swallowed and enters airways

Skin corrosion/irritation: Category 2 (H315). Causes skin irritation

Specific target organ toxicity (single exposure): (H336). May cause drowsiness or dizziness.

Reproductive toxicity: Category 2 (H361D). Suspected of damaging the unborn child

Signal word: Danger.

Hazard statements

According to the harmonized classification and labeling recommended by OSHA and the EU, this substance is a highly flammable liquid and vapor, causes serious eye irritation and may cause drowsiness or dizziness. In case of skin contact immediately remove all contaminated clothing. Rinse with water or shower. In case of fire, use fire extinguishers approved for Toluene fires.

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P242 Use only non-sparking tools.

P243 Take precautions against static discharge.

P260 Do not breathe dust/fume/gas/mist/vapors/spray

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective clothes and eye protection.

Safety Ratings

Health: Hazardous *Flammability:* Highly flammable *Reactivity:* Stable *Contact:* Slight
Recommended safety equipment: safety goggles, lab coat and proper gloves

Storage: Keep cool, away from sources of ignition in a well ventilated area.

NFPA Ratings

Health = 2 Flammability = 4 Reactivity = 0

Potential Health Effects

The toxicology of this compound has not been completely examined. It is presumed that the toxicity of this item is similar to that of other ketones.

Inhalation: Toluene is absorbed through mucous membranes and will produce irritation as well as the same effects as ingestion.

Ingestion: Ingestion will produce CNS disturbance, dizziness, photophobia, headache, stupor, coma and death.

Skin contact: Toluene is absorbed through the skin. Repeated contact causes defatting of the skin with resultant irritation and flaking.

Eye contact: Causes serious eye irritation.

Chronic Exposure: Unknown.

Aggravation of preexisting conditions: Impaired kidney and liver function may be aggravated by exposure to Toluene. Preexisting eye, skin, and respiratory conditions may also be aggravated.

Section III - Composition/Information on Components

Ingredients	CAS#	EU/List #	%
Toluene	108-83-3	203-625-9	>99% v/v

Section IV - First Aid Measures

General Advice: Contact a doctor if symptoms persist

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.

Ingestion: Do not induce vomiting. Aspiration of Toluene into the lungs may produce death. Get immediate medical attention even if symptoms improve.

Skin Contact: In case of skin contact, remove contaminated clothing and flush with water. Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: In case of eye contact, flush with water for at least 15 minutes and get medical attention.

Section V - Fire Fighting Measures

Fire Extinguishing Media: Alcohol foam, carbon dioxide or dry chemical. Water is ineffective against Toluene fires but may be used to cool adjacent containers.

Flash point: 4 °C (39 °F) TCC

Flammable Limits (for Toluene) LEL 1% UEL 7%

Specific Hazards: Risk of vapor traveling to source of ignition and flashing back. Risk of exploding containers when heated. Vapor in air may form explosion risk.

Special information: Pyrolysis will release toxic carbon monoxide, formaldehyde and methanol.

Special protective gear and precautions: Self contained breathing apparatus and protective gear recommended.

Section VI - Accidental Release Measures

Use personal protective gear, remove all sources of ignition, absorb with a suitable absorbent and dispose. Take precautions against static ignition. Should not be released into the environment.

Section VII - Handling and Storage

P403+P233+P102; Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Toluene	20 ppm TWA	200 ppm TWA	500 ppm

Legend

ACGIH: American Conference of Governmental Industrial Hygienists.

OSHA: Occupational Safety and Health Administration.

NIOSH: National Institute for Occupational Safety and Health.

IDLH: Immediately dangerous to life or health.

Ventilation System: Local exhaust such as explosion proof chemical fume hoods are recommended. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details about ventilation.

Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

Skin protection: Protective gloves are recommended as part of good laboratory practice.

Eye Protection: Laboratory safety goggles or similar products are recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

Boiling Point: 110-111 °C (230-232 °F)

Vapor pressure: 28 mm Hg @ 25 °C

Vapor Density: (air = 1): 3.1

Volatile organic carbon (VOC): 865 g/l with a sweet pungent odor similar to benzene.

Density: 0.865 g/ml @ 22.5 °C

Evaporation Rate (Butyl Acetate = 1.0): 2.4

Solubility: Insoluble in water

Appearance and Odor: A clear colorless liquid

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Nothing unusual.

Hazardous polymerization: Will not occur.

Incompatibilities: Oxidizers.

Conditions to avoid: heat, flame and sources of ignition.

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Toluene	500 mg/kg (Rat)	12 g/kg (Rabbit)	12500 mg/m ³ /4 h (Rat)

Cancer lists

Ingredient *Known Carcinogenicity?* *NTP?* *Anticipated?* *IARC Category*

Toluene No No No 3

Section XII - Ecological Information

Toluene evaporates quickly and are not expected to bioaccumulate. The material is removed from the air by dry and liquid adsorption. The half-life for ethanol in the atmosphere is one to ten days.

Environmental Fate: Biodegradable

Soil Mobility: Unknown

Environmental Toxicity: Low

Component	Freshwater Fish	Water Flea	Freshwater algae
Toluene	LC50 7.6 mg/l 96 h	EC50 6 mg/l 48 h	No data

Section XIII - Disposal Considerations

Incineration at a licensed chemical disposal facility is the preferred disposal method. Local governments often restrict the amounts of flammable liquids that may be flushed down the drain. In all cases they usually require that the effluent exiting the building not be flammable. Dispose of contents and container in accord with all applicable regulations.

Section XIV - Transportation Information

DOT/IATA Shipping name: Toluene Hazard Class: 3 Packaging Group: II
DOT Hazard Label: Flammable liquid DOT/IATA Identification Number: UN1294

Bottles smaller than 32 Fl. Oz. are eligible to be shipped under limited quantity exemptions [49 CFR section 173.150(b)(2) and 173.150(C)].

Section XV - Regulatory Information

Chemical Inventory Status

Ingredient	TSCA	EC
Toluene	Yes	Yes

Federal, State and International Regulations

Ingredient	SARA 302		SARA 313		RCRA	TSCA	Ca. Prop 65
	RQ	TPQ	List	Category	261.33	8(D)	
Toluene	No	No	No	No	U220	No	Yes

Chemical Weapons Convention: No TSCA 12(b): No CDTA: Yes

SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No Reactivity: No

Section XVI - Other Information

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

Document Number: S272

Revision number: 1.0

Revision Date: Aug. 16, 2021