

SAFETY DATA SHEET



Date Issued : 07/26/2005
SDS No : 11754
Date Revised : 08/06/2021
Revision No : 18

TOLUENE

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TOLUENE

PRODUCT FORMULATION NAME: Toluene

MANUFACTURER

Distributed by Tarr, LLC

P.O. Box 12570

Portland, OR 97212

Customer Service: 503-288-5294

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Acute Toxicity (Oral), Category 4

Skin Corrosion, Category 2

Target Organ Toxicity (Repeated exposure), Category 2

Aspiration Hazard, Category 1

Environmental:

Acute Hazards to the Aquatic Environment, Category 3

Physical:

Flammable Liquids, Category 2

GHS LABEL



Flame



Health
hazard



Exclamation
mark

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H225: Highly flammable liquid and vapour.

H332: Harmful if inhaled.

H315: Causes skin irritation.

H413: May cause long lasting harmful effects to aquatic life.

H304: May be fatal if swallowed and enters airways.

PRECAUTIONARY STATEMENTS

TOLUENE**Prevention:**

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

P241: Use explosion-proof [electrical/ventilating/lighting/...] equipment.

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P501: Dispose of contents/container to ...

Response:

P312: Call a POISON CENTER/doctor/...if you feel unwell.

P381: In case of leakage, eliminate all ignition sources.

P361: Take off immediately all contaminated clothing.

P370+P380: In case of fire: Evacuate area.

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: DANGER! Highly flammable liquid and vapor. Harmful or fatal if swallowed. Vapor harmful. May cause central nervous system depression. May be irritating to eyes, skin, nose, throat and respiratory tract.

POTENTIAL HEALTH EFFECTS

EYES: Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness.

SKIN: 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).

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 aspiration pneumonitis.

INHALATION: High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness).

MEDICAL CONDITIONS AGGRAVATED: Persons with pre-existing skin, eye, or central nervous system disorders, or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of this substance.

COMMENTS: Reports have associated repeated and prolonged occupational overexposure to solvents with irreversible brain and nervous system damage (sometimes referred to as "Solvent or Painter's Syndrome"). Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Vol. %	CAS
Toluene	≥ 99	108-88-3

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN: Remove contaminated clothing/shoes. Flush skin with water for at least 15 minutes. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned.

INGESTION: DO NOT INDUCE VOMITING. Do not attempt to give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

TOLUENE

INHALATION: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE EFFECTS: Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea; in extreme cases, unconsciousness and death may occur. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis (bluish skin). In severe cases death may result.

NOTES TO PHYSICIAN: If more than 2.0 ml per kg has been ingested and vomiting has not occurred, emesis should be induced with supervision. Keep victim's head below hips to prevent aspiration.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use water fog, "alcohol" foam, dry chemical, or CO₂.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion.

EXPLOSION HAZARDS: When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

FIRE FIGHTING PROCEDURES: WARNING! Flammable Liquid. Clear fire area of unprotected personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death. Observe all federal, state, and local regulations and National Fire Protection Association (NFPA) Codes with pertain to the specific local conditions of stage and use, including OSHA 29 CFR 1910.106 and NFPA 30, 70, 77, and 497.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

TOLUENE**EXPOSURE GUIDELINES**

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
EXPOSURE LIMITS				
Chemical Name	Type		ppm	mg/m ³
Toluene	OSHA PEL	TWA	200	
		STEL	300 ^[1]	[1]
	ACGIH TLV	TWA	50 ^[2]	188 ^[2]
Footnotes:				
1. C = Ceiling				
2. S = Skin				

ENGINEERING CONTROLS: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Chemical splash goggles and face shield in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

SKIN: Wear chemical resistant gloves such as: Poly Vinyl Alcohol (PVA), Viton, or Teflon gloves or consult your safety equipment supplier. Depending on the conditions of use, protective gloves, apron, boots, head and face protection should be worn. The equipment must be cleaned thoroughly after each use.

RESPIRATORY: If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors.

PROTECTIVE CLOTHING: Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

WORK HYGIENIC PRACTICES: Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

OTHER USE PRECAUTIONS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Boiling Point (°C)	Auto Ignition (°C)	Solubility in Water	Specific Gravity
Toluene	4.5 TAG CC	111.111	480	0.07% (74 deg. F)	0.87

PHYSICAL STATE: Liquid

ODOR: Aromatic sweet odor.

COLOR: Clear, colorless liquid.

pH: Essentially neutral.

PERCENT VOLATILE: 100

FLASH POINT AND METHOD: (39°F) Closed Cup

LOWER EXPLOSION LIMIT: 1.2%

TOLUENE**UPPER EXPLOSION LIMIT:** 7%**AUTOIGNITION TEMPERATURE:** (995°F)**VAPOR PRESSURE:** 21.8 mm Hg at 20°C**BOILING POINT:** (230°F) to (232°F)**FREEZING POINT:** (-135°F)**SOLUBILITY IN WATER:** Soluble in most hydrocarbon solvents, negligible solubility with water.**EVAPORATION RATE:** 2.2 (n-Butyl Acetate=1)**DENSITY:** 7.25 at (60°F)**SPECIFIC GRAVITY:** 0.86 to 0.87 at (60°F)**(VOC):** 7.2 LBS./gal.**10. STABILITY AND REACTIVITY****REACTIVITY:** Yes**HAZARDOUS POLYMERIZATION:** Avoid heat, flame, and other sources of ignition.**STABILITY:** Stable under normal conditions.**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and unidentified organic compounds may be formed during combustion. There should be no decomposition if stored and applied as directed.**INCOMPATIBLE MATERIALS:** Strong oxidizers.**11. TOXICOLOGICAL INFORMATION****ACUTE TOXICITY****DERMAL LD₅₀:** > 14000 mg/kg (rabbit)**Notes:** LD50 is for Benzene. This product may contain benzene (CAS 71-43-2) at a concentration less than 300 ppm.**ORAL LD₅₀:** 636 mg/kg (rat)**Notes:** LD50 for Benzene is 5,000 mg/kg (rat). This product may contain benzene (CAS 71-43-2) at a concentration less than 300 ppm.**INHALATION LC₅₀:** ~ 4000 (NINHL rat)**Notes:** LC50 is for Benzene. This product may contain benzene (CAS 71-43-2) at a concentration less than 300 ppm.**RESPIRATORY OR SKIN SENSITISATION:** While there is no evidence that industrially acceptable levels of toluene vapors (e.g., the TLV) have produced cardiac effects in humans, animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. This latter effect was shown to be enhanced by hypoxia or the injection of adrenalinlike agents. Prolonged and repeated exposures to high concentrations of toluene have resulted in hearing loss in laboratory rats. While the effect of solvents on the human auditory system is uncertain, solvent abusers exposed to high doses of toluene show signs of hearing loss, and occupational exposure to toluene may interact with noise in causing hearing loss in the work environment. The effects of solvents on human hearing are uncertain. Solvent abusers and noise interaction with toluene in the work environment may cause signs of hearing loss.**CARCINOGENICITY**

Chemical Name	IARC Status
Toluene	3

TOLUENE

NOTES: At only 10% Volume of this blend, Toluene is not known to be mutagenic or carcinogenic. However, the available human and experimental data are limited and insufficient to assess carcinogenic potential. Toluene is not listed as a carcinogen by NTP or OSHA. Intentional abuse of toluene vapors has been linked to damage of brain, liver, kidney and to death. Many case studies involving abuse during pregnancy clearly indicate that toluene is a developmental toxicant. Developmental toxic effects comparable to those observed in humans have been seen in lab animals but the effects were generally associated with maternal toxicity.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

EMPTY CONTAINER: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

RCRA/EPA WASTE INFORMATION: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME: Toluene

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN 1294

PACKING GROUP: II

NAERG: 128

REPORTABLE QUANTITY (RQ) UNDER CERCLA: 1000 lbs

LABEL: Flammable liquid

15. REGULATORY INFORMATION**UNITED STATES****DOT LABEL SYMBOL AND HAZARD CLASSIFICATION**

TOLUENE

Flammable
Liquid

R11: Highly flammable.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HEALTH HAZARDS: This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

313 REPORTABLE INGREDIENTS: Toluene (CAS 108-88-3)

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Vol. %	CAS
Toluene	≥ 99	108-88-3

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Vol. %	CERCLA RQ
Toluene	≥ 99	1,000

CERCLA RQ: 1,000 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Toluene	108-88-3

TSCA STATUS: Listed.

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following chemicals known to the State of California to cause cancer and reproductive toxicity: Benzene, Toluene

Chemical Name	Vol. %	Listed
Toluene	≥ 99	● Female Reproductive

CANADA**WHMIS HAZARD SYMBOL AND CLASSIFICATION**

TOLUENE



Flammable
Liquid

R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.

16. OTHER INFORMATION

REASON FOR ISSUE: Updated SDS information and changed to new format.

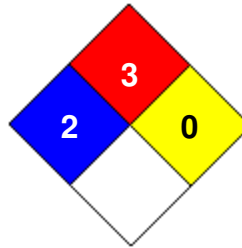
PREPARED BY: Compliance **Date Revised:** 08/06/2021

REVISION SUMMARY: This SDS replaces the 02/19/2018 SDS. Revised: **Section 1:** SDS No.

HMIS RATING

HEALTH	<input type="checkbox"/>	2
FLAMMABILITY		3
PHYSICAL HAZARD		0
PERSONAL PROTECTION		G

NFPA CODES



NFPA STORAGE CLASSIFICATION: These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.

ADDITIONAL SDS INFORMATION: Last revision 11/04/2004.

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