

SAFETY DATA SHEET

TOLUOL

Product ID: AA2004

Revised: 06-08-2016

Replaces: 10-29-2013

CHEMICAL DISTRIBUTION
SOLUTIONS

1. IDENTIFICATION

Product Identifier: TOLUOL
Other Identifiers: Toluene; Methylbenzene; Methaphene; Phenylmethane;
CAS Number: MIXTURE
Recommended Use: No data available.
Restrictions on Use: No data available.

Chemical Distribution Solutions
1125 Oak St. Ste. 303
Conway, AR 72032
(501) 978-1111

EMERGENCY RESPONSE NUMBERS:
24 Hour Emergency : (800) 424-9300 CHEMTREC

2. HAZARD(S) IDENTIFICATION

GHS Classification(s): Aspiration Hazard Category 1
Flammable Liquid Category 2
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2A
Reproductive Toxicity Category 2
Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

GHS Label Elements:

GHS Hazard Symbols:



Signal Word: Danger

Hazard Statements: Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause damage to organs (central nervous system) through prolonged or repeated exposure.

Precautionary Statements:

Prevention: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames and hot surfaces. – No smoking.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.

TOLUOL
Product ID: AA2004

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

Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice or attention.
Call a POISON CENTER or doctor if you feel unwell.
Specific treatment (see First Aid on SDS or on this label).
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice or attention.
If eye irritation persists: Get medical advice or attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry chemical, carbon dioxide, water spray, foam to extinguish.

Storage:

Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store in a secure manner.

Disposal:

Dispose of in accordance with local, regional and international regulations.

Hazards Not Otherwise Classified: Breathing high concentrations can cause irregular heartbeats which may be fatal.

Percentage of Components with Unknown Acute Toxicity:

Oral: 100 %
Inhalation Vapor: 100 %
Inhalation Dust/Mist: 100 %

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances/Mixtures:

<u>Chemical or Common Name/Synonyms</u>	<u>CAS Number</u>	<u>% by Wt.</u>
Toluene	108-88-3	> 99 %

Note: Any chemical identity and/or exact percentage not expressly stated is being withheld as a trade secret or is due to batch variation.

4. FIRST-AID MEASURES

Description of Necessary Measures:

Eye Contact: If in eyes: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lens if easy to do. Do not use eye ointment.

Skin Contact: If on skin: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use ointments. If skin surface is not damaged, wash thoroughly with soap and water. Discard contaminated leather articles such as shoes and belt.

Inhalation: If inhaled: Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

Ingestion: If swallowed: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended.

Most Important Symptoms/Effects, Acute and Delayed:

TOLUOL

Product ID: AA2004

Eye Contact: Causes mild to severe irritation. Liquid contact may cause: redness. stinging. swelling. tearing. burning. blurred vision. Prolonged contact may be more severe.

Skin Contact: Causes mild to moderate irritation. Contact may cause: redness. burning. itching. Prolonged or repeated contact may cause more serious effects.

Skin Absorption: May be harmful if absorbed through skin. May be absorbed through the skin and cause effects similar to inhalation or ingestion.

Inhalation: May cause moderate to severe irritation. Vapors or mists may irritate: respiratory tract. Inhalation overexposure may lead to central nervous system depression producing effects such as: dizziness. headache. nausea. fatigue. delirium. drowsiness. loss of consciousness. Breathing high concentrations of this material, for example, in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.

Ingestion: May cause mild to severe irritation. May be harmful if swallowed. May cause: gastrointestinal irritation. diarrhea. nausea. pain. central nervous system depression. May cause effects similar to inhalation. Aspiration can result in severe lung damage or death.

Indication of Immediate Medical Attention and Special Treatment Needed: INHALATION: Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonia. Administer supplemental oxygen with assisted ventilation, as required.

This material (or a component) sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

INGESTION: If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Carbon dioxide. Dry chemical. Foam. Water spray. Water fog. DO NOT USE: Direct water stream. Water may be ineffective but should be used to cool fire-exposed structures and vessels.

Specific Hazards Arising from the Chemical:

Fire and Explosion Hazards: FLAMMABLE LIQUID. Vapors are heavier than air. Vapors may settle in low or confined areas, or travel long distances along the ground or surface to an ignition source where they may ignite, flashback, or explode. Keep away from heat, sparks, flames or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment). PROCESS HAZARD: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. This material releases vapors at or below ambient temperatures.

Hazardous Combustion Products: Carbon dioxide. Carbon monoxide. Smoke. Fumes. Aldehydes. Unburned hydrocarbons. Products of incomplete combustion.

Special Protective Equipment and Precautions for Fire-Fighters: Evacuate area of unprotected personnel. Wear protective clothing including NIOSH-approved self-contained breathing apparatus. Remain upwind of fire to avoid hazardous vapors and decomposition products. Use water spray to cool fire-exposed containers and disperse vapors. Do not use direct water stream. May spread fire. Avoid water accumulation. Product may reignite and burn on the water's surface. Cover pooling liquid with foam. If container is not properly cooled, it can rupture in the heat of a fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, Emergency Procedures: FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protective equipment recommendations found in Section 8. Never exceed any occupational exposure limit.

Methods and Materials for Containment and Clean Up: A vapor suppressing foam may be used to reduce vapors. Shut off source of leak if safe to do so. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. DO NOT use sawdust or other cellulose-type material. Place in non-leaking containers for immediate disposal. Flush remaining area with water to remove trace residue and dispose of properly. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. Prevent entry into basements, low areas, or confined areas. Do not touch or walk through spilled material. Remove spillage immediately from hard, smooth walking areas. Use non-sparking tools and equipment. Ground and bond all containers and handling equipment. Water mist or spray may be used to reduce or disperse vapors; but, it may not prevent ignition in closed spaces. This material will float on water and its run-off may create an explosion or fire hazard.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not swallow. Avoid breathing vapors, mists, or dust. Do not eat, drink, or smoke in work area. Wash thoroughly after handling. Empty containers retain product residue (vapor, dust, or liquid) 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 source of ignition. They may explode and cause injury or death. Launder contaminated clothing before reuse. Air-dry contaminated clothing in a well ventilated area before laundering. Always open containers slowly to allow any excess pressure to vent. A static electrical charge can accumulate when this material is flowing through pipes, nozzles or filters and when it is agitated. Do not fill any portable container in or on a vehicle. DO NOT use compressed air for filling, discharging or other handling operations. Always keep nozzle in contact with the container throughout the loading process. Bond and ground transfer containers and equipment. This product can form ignitable vapor-air mixture inside storage tanks and can accumulate static electricity during transfer and storage, even with proper grounding and bonding. Additional precautions beyond standard grounding and bonding may be necessary to prevent static discharge and fire/explosion hazards. Additional measures include, but are not limited to, inerting tank head space with nitrogen, adding anti-static agents, and reducing pump flow velocity during transfer to 1 meter/second or less. Consult NFPA 77, NFPA 69 and API RP 2003 for additional information and preventative measures. Observe precautions pertaining to confined space entry.

Conditions for Safe Storage, Including any Incompatibilities: FLAMMABLE LIQUID. Store in a cool, well ventilated area away from all sources of ignition and out of direct sunlight. Store in a dry location away from heat. Keep away from incompatible materials. Keep containers tightly closed. Do not store in unlabeled or mislabeled containers. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment. Avoid contamination of food or feed. Protect containers against physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
Toluene	300 ppm Ceiling; 200 ppm TWA

ACGIH Exposure Guidelines:

<u>Component</u>	<u>Limits</u>
Toluene	20 ppm TWA

Engineering Controls: Local exhaust or other engineering controls are needed to minimize exposures. Use explosion-proof ventilation equipment. Maintain adequate ventilation. Do not use in closed or confined spaces. Avoid creating dust or mist. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

Individual Protection Measures:

Eye/Face Protection: Wear safety glasses with side shields while handling this product. Wear additional eye protection such as chemical safety goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material.

Skin Protection: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use. Protective gloves: Chemical-resistant.

Respiratory Protection: Respiratory protection must be worn if ventilation does not eliminate symptoms or keep levels below recommended exposure limits. If exposure limits are exceeded, wear: NIOSH-Approved organic respirator. NIOSH-Approved self-contained breathing apparatus. DO NOT exceed limits established by the respirator manufacturer. All respiratory protection programs must comply with OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements and must be followed whenever workplace conditions require a respirator's use.

Other Protective Equipment: Eye-wash station. Safety shower. Rubber apron. Rubber boots. Protective clothing.

General Hygiene Conditions: Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as practical, especially before eating or smoking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.

Color: Clear. Colorless.

Odor: Sweet, pungent aromatic hydrocarbon odor.

Odor Threshold: N.D.

pH: N.A.

Freezing Point (deg. F): ~ -139

Melting Point (deg. F): ~ -139

Initial Boiling Point or Boiling Range: 228 - 231 °F

Flash Point: 40 °F

Flash Point Method: TCC.

Evaporation Rate (nBuAc = 1): 1.9 - 2.0

Flammability (solid, gas): N.D.

Lower Explosion Limit: ~ 1.2

Upper Explosion Limit: ~ 7

Vapor Pressure (mm Hg): 24 @ 20 Deg. C

Vapor Density (air=1): ~3

Specific Gravity or Relative Density: 0.87

Solubility in Water: < 0.1 %

Partition Coefficient (n-octanol/water): N.D.

Autoignition Temperature: 896 Deg. F.

Decomposition Temperature: N.D.

Viscosity: < 3 cSt @ 40 Deg. C

% Volatile (wt%): 100%

VOC (wt%): 100%

VOC (lbs/gal): 7.25

Fire Point: N.D.

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur under normal conditions.

TOLUOL

Product ID: AA2004

Conditions to Avoid: Avoid contact with heat, sparks, electric arcs, other hot surfaces, and open flames. Avoid static discharges.

Incompatible Materials: Strong acids. Alkalies. Oxidizing agents. Halogens or halogen compounds. Liquid chlorine. Hydrogen peroxide. Oxygen.

Hazardous Decomposition Products: Carbon dioxide. Carbon monoxide. Aldehydes. Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Absorption. Eyes. Ingestion. Inhalation. Skin.

Symptoms/Effects: Acute, Delayed and Chronic:

Eye Contact: Causes mild to severe irritation. Liquid contact may cause: redness. stinging. swelling. tearing. burning. blurred vision. Prolonged contact may be more severe.

Skin Contact: Causes mild to moderate irritation. Contact may cause: redness. burning. itching. Prolonged or repeated contact may cause more serious effects.

Skin Absorption: May be harmful if absorbed through skin. May be absorbed through the skin and cause effects similar to inhalation or ingestion.

Inhalation: May cause moderate to severe irritation. Vapors or mists may irritate: respiratory tract. Inhalation overexposure may lead to central nervous system depression producing effects such as: dizziness. headache. nausea. fatigue. delirium. drowsiness. loss of consciousness. Breathing high concentrations of this material, for example, in an enclosed space or by intentional abuse, can cause irregular heartbeats which can cause death.

Ingestion: May cause mild to severe irritation. May be harmful if swallowed. May cause: gastrointestinal irritation. diarrhea. nausea. pain. central nervous system depression. May cause effects similar to inhalation. Aspiration can result in severe lung damage or death.

Numerical Measures of Toxicity:

<u>Component</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Inhalation LC50</u>
Toluene	No Data	Rabbit: 12000 mg/kg	No Data

Cancer Information:

This product does not contain 0.1% or more of the known or potential carcinogens listed in NTP, IARC, or OSHA.

Medical Conditions Aggravated by Exposure to Product: Kidney disorders. Liver disorders. Respiratory system disorders. Skin disorders. Central nervous system disorders. Heart disorders. Auditory System Disorders.

Other: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as Solvent or Painters' Syndrome). Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal. Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction. This material (or a component) may cause harm to the human fetus based on tests with laboratory animals. Prolonged or repeated overexposure to toluene, a component of this product, has been associated with reproductive effects in experimental animals and in long-term chemical abuse situations. Long-term overexposure to toluene has been associated with impaired color vision. Long-term overexposures to toluene in occupational environments have been associated with hearing damage.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No data available.

Chemical Fate Information: No data available.

13. DISPOSAL CONSIDERATIONS

TOLUOL
Product ID: AA2004

Hazardous Waste Number: U220; D001

Note: An additional EPA Hazardous Waste Number may include: D018. When toluene is a spent solvent, it is classified as a hazardous waste from a nonspecific source (F005), as stated in 40 CFR 261.31.

Disposal Method: Dispose of in a permitted hazardous waste management facility following all local, state and federal regulations. DO NOT pressurize, cut, weld, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):

Identification Number: UN1294
Proper Shipping Name: Toluene
Hazard Class: 3
Packing Group: II
Label Required: FLAMMABLE
Reportable Quantity (RQ): 1000# (Toluene)

15. REGULATORY INFORMATION

TSCA Inventory Status: This product or all components of this product are listed on the EPA/TSCA Inventory of Chemical Substances.

SARA Title III Section 311/312 Category Hazards:

<u>Immediate (Acute)</u>	<u>Delayed (Chronic)</u>	<u>Fire Hazard</u>	<u>Pressure Release</u>	<u>Reactive</u>
Yes	Yes	Yes	No	No

<u>Regulated Components:</u>	<u>CAS</u>	<u>CERCLA</u>	<u>SARA</u>	<u>SARA</u>	<u>U.S.</u>	<u>WI</u>	<u>Prop</u>
<u>Component</u>	<u>Number</u>	<u>RQ</u>	<u>EHS</u>	<u>313</u>	<u>HAP</u>	<u>HAP</u>	<u>65</u>
Toluene	108-88-3	Yes	No	Yes	Yes	Yes	Yes

***Prop 65 - May Contain the Following Trace Components:**

This product may contain a detectable level of (a) chemical(s) subject to California proposition 65.

16. OTHER INFORMATION

Hazard Rating System

Health: 2*
Flammability: 3
Reactivity: 0

* = Chronic Health Hazard

NFPA Rating System

Health: 2
Flammability: 3
Reactivity: 0
Special Hazard: None

SDS Abbreviations

N.A. = Not Applicable
N.D. = Not Determined
HAP = Hazardous Air Pollutant
VOC = Volatile Organic Compound
C = Ceiling Limit
N.E./Not Estab. = Not Established

SDS Prepared by: csh

TOLUOL

Product ID: AA2004

Reason for Revision: New format.

Revised: 06-08-2016

Replaces: 10-29-2013

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which Chemical Distribution Solutions assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.