


Safety Data Sheet

Section 1. Identification		
Product Identifier	Toluene	Version: 5 Effective Date: 18 July, 2017
Other Means Of Identification	Methylbenzene	
Initial Supplier Identifier	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Recommended Use and Restrictions On Use	Industrial Solvent. No restrictions.	
Product Family	Hydrocarbon	
24 Hour Emergency	Canutec (613) 996-6666	

Section 2. Hazard Identification	
Hazard Classification	
Physical Hazard	Flammable Liquids – Category 2
Health Hazard	Skin Corrosion/Irritation - Category 2 Eye Damage/Irritation - Category 2B Specific Target Organ Toxicity, (Single Exposure) - Category 3 Specific Target Organ Toxicity, (Repeated Exposure) – Category 2 Aspiration Hazard – Category 1 Acute Toxicity Oral – Category 4 Reproductive Toxicity – Category 2
Signal Word	Danger
Hazard Statement	Highly flammable liquid and vapour. Causes skin irritation. Causes eye irritation. May cause respiratory irritation; or may cause drowsiness or dizziness. May cause damage to organs (central nervous system, kidney, liver, immune system), through prolonged or repeated exposure by inhalation and ingestion. May be fatal if

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	swallowed and enters airways. Harmful if swallowed. Suspected of damaging fertility or the unborn child (spontaneous abortion).
Precautionary Prevention Statement	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion proof electrical, ventilating and lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Wear protective gloves, clothing, and eye & face protection. Wash hands thoroughly after handling. Do not inhale dust, fume, gas, mist, vapours and spray. Do not eat, drink or smoke when using this product.
Precautionary Response Statement	<p>IF ON SKIN (or hair): Wash with plenty water. Immediately remove all contaminated clothing. Rinse skin with water or shower if on clothing. In case of fire, use foam, carbon dioxide, or dry chemical to extinguish. If skin irritation occurs, seek medical attention. Remove contaminated clothing and wash it before reuse.</p> <p>Specific Treatment: Do not induce vomiting unless directed by medical personnel.</p> <p>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, seek medical attention.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Seek medical attention if you feel unwell.</p> <p>IF SWALLOWED: Immediately call a POISON CENTRE. Do NOT induce vomiting. Rinse mouth.</p> <p>IF exposed or concerned: Seek medical attention.</p>
Precautionary Storage Statement	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Precautionary Disposal Statement	Dispose of contents/container in accordance with local regulations.
Other Hazards	None known

Section 3. Composition / Information on Ingredients			
Chemical Name	Common Name or Synonyms	CAS NO. and Other Unique Identifiers	% by weight
Toluene	Methylbenzene	108-88-3	90-100

Section 4. First-Aid Measures	
Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.

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Skin Contact	Flush area with water. If skin is damaged, seek immediate medical attention. If irritation persists, seek medical attention. Launder clothing before reuse.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.
Most Important Symptoms and Effects Both Acute and Delayed	Headaches, dizziness, or unconsciousness. Incoordination, cognitive impairment, and vision and hearing loss may become permanent with repeated exposure. Single exposures to toluene or repeated exposures over a few weeks can cause headaches and sleepiness, and can impair your ability to think clearly. Low to moderate, day-after-day exposure to toluene in your workplace can cause tiredness, confusion, weakness, drunken-type actions, memory loss, nausea, and loss of appetite. These symptoms usually disappear when exposure is stopped.
Immediate Medical Attention and Special Treatment	Immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. If on skin or eyes, wash with plenty of water.

Section 5. Fire-Fighting Measures

Suitable and Unsuitable Extinguishing Media	Foam, carbon dioxide, dry chemical. Do not use direct water jet.
Hazardous Combustion Products	Carbon monoxide
Specific Hazards Arising From the Product	Vapour forms explosive mixtures with air and oxidizing agents.
Special Protective Equipment and Precautions For Fire-Fighters	Fire-fighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire. May ignite if exposed to static discharge. Can form explosive mixtures in water. Product will float on water and can travel to distant locations and /or spread fire.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	Gloves (neoprene), goggles or face shield, coveralls (flameproof), footwear appropriate for worksite. Air purifying respirator (organic vapours/mists) if exposure limits are being exceeded. Immediately evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Remove all sources of ignition if safe to do so. Reduce vapours with fog or fine water spray, taking care not to
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	spread liquid with water. Stop flow of material if safe to do so. Ventilate area or move container to a well-ventilated area.
Environmental Precautions	Do not allow to enter any surface water courses or drains and sewers. Product may collect in low places. Remove all sources of ignition and naked flames.
Methods and Materials For Containment and Clean-Up	With all sources of ignition removed and wearing correct protective apparel, close area and remove all personnel not required for clean-up. Pump up large volumes of product, or soak up smaller amounts with an absorbent. Place collected material in a suitable container for disposal. Wash area down with soap and water to remove residues.

Section 7. Handling and Storage	
Precautions For Safe Handling	Handle with care. Flammable liquid. Containers should be grounded to prevent static discharge.
Conditions For Safe Storage	Store in a cool dry place away from any sources of ignition.

Section 8. Exposure Controls / Personal Protection	
Control Parameters	TWA: 8 Hr STEL: 15 min Ceiling
Toluene	50 ppm (CAD AB OEL) * Immediately Dangerous to Life and Health
Exposure Controls	Local exhaust ventilation to maintain exposure levels below legal limits.
Appropriate Engineering Controls	An explosion-proof local exhaust system or a mechanical system is acceptable if it can prevent oxygen deficiency and keep hazardous fumes and gases below all applicable exposure limits in the worker's breathing area.
Individual Protective Measures	
Eye / Face Protection	Goggles
Skin Protection	Chemical resistant gloves, coveralls
Respiratory Protection	Air purifying respirator fitted with cartridges (organic vapours/mists) must worn if exposure limits are being exceeded.

Section 9. Physical and Chemical Properties	
Appearance	Clear, colourless liquid
Odour	Hydrocarbon odour

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Odour Threshold	Not available.
pH	Not applicable.
Flash Point	4.44 °C
Boiling Point and Boiling Range	110.6 °C
Melting Point and Freezing Point	-94.9 °C
Evaporation Rate	2.00 (N-Butyl acetate)
Flammability (solid, gas)	Not applicable
Upper and Lower Flammability or Explosive Limits	No data
Vapour Pressure	3.78 kPa @ 25 °C
Vapour Density	3.1 (air =1)
Relative Density	0.87
Solubility	Not soluble
Partition co-efficient, n-Octanol/Water	Log POW 2.65
Auto-ignition Temperature	480 °C
Decomposition Temperature	No data
Viscosity	No data

Section 10. Stability and Reactivity	
Reactivity	Vapour forms explosive mixtures with air and oxidizing agents.
Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur
Conditions to Avoid	Open flames and sources of ignition
Incompatible Materials	Strong acids, strong oxidizing agents.
Hazardous Decomposition Products	Not expected to decompose under normal conditions of use.

Section 11. Toxicological Information			
Component Toxicity	LD50 Oral	LD50 Dermal	LC50 Inhalation
Toluene	2.6 g/kg (Rat)	12.124 g/kg (Rat)	8000 ppm (Rat), 4h
Likely Routes of Exposure			
Skin:	Prolonged and repeated contact will cause redness, burning, drying and cracking of the skin and/or burns. This material can pass into the body through the skin – but is unlikely to cause harmful effects if material is being handled safely.		
Eyes:			

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Inhalation:	Liquid and vapours can cause severe irritation of the eyes. Symptoms include stinging, tearing, redness and swelling of the eyes.
Ingestion:	Inhalation of vapours or mists may cause headache, nausea, dizziness, drowsiness, unconsciousness and death. Harmful or fatal if swallowed. Pulmonary aspiration hazard if swallowed and vomiting occurs.
Acute Toxicity Estimates (ATE)	Oral: 636.000 mg/kg body weight. Dermal: 12000.000 mg/kg body weight. Gases: 28488.000 ppmV/4h. Vapours: 49.000 mg/l/4h. Dust/mist: 49.000 mg/l/4h.
STOT (Specific Target Organ Toxicity) – Single Exposure	May cause drowsiness or dizziness
Aspiration Toxicity	May be fatal if swallowed and enters airways.
STOT (Specific Target Organ Toxicity) – Repeated Exposure	May cause damage to organs through prolonged or repeated exposure (Kidney, liver, central nervous system).
Skin Corrosion / Irritation	Irritant
Serious Eye Damage / Irritation	Irritant
Respiratory or Skin Sensitization	Not classified
Carcinogenicity	Not listed.
Reproductive Toxicity	
- Sexual function and Fertility	Not classified
- Development of Offspring	Causes damage to unborn child
- Effects on or via Lactation	Not classified
Germ Cell Mutagenicity	Not classified
Interactive Effects	None known
Other Information	None known

Section 12. Ecological Information

Ecotoxicity	LC50: 5.8 mg/L (Rainbow trout) 96 hr renewal LC50: 12.6 mg/L (Fathead minnow) 96 hr static EC50: 6.00 mg/L (Water flea) 48 hr static
Persistence and Degradability	Not established



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Bioaccumulative Potential	Not available
Biodegradability	Not available
Mobility in Soil	Not available
Other Adverse Effects	None known

Section 13. Disposal Considerations

Disposal Considerations	Dispose of contents/container in accordance with local regulations
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Section 14. Transport Information

UN Number	1294
UN Proper Shipping Name	Toluene
Transport Hazard Class(es)	3
Packaging Group	II
Environmental Hazards	Not applicable
Bulk Transport	Not applicable
Special Precaution	Not applicable
DOT Erg#	130

Section 15. Regulatory Information

Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL), Non-Domestic Substances List (NDSL), or exempt
TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
Additional Information	None

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Section 16. Other Information	
NFPA Rating	Health-2/ Flammability-2/Reactivity-0/Special Hazard-Not applicable
HMIS Rating	Health-2/Flammability-2/Reactivity-0/Personal Protection-See Section 8.
Prepared by:	Chemfax Products Ltd., Technical Department
Date Prepared:	28 September, 2012
Date of Latest Revision:	18 July, 2017
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