


Material Safety Data Sheet

Section 1. Chemical Product and Company Identification		
Product Name:	Toluene (Toluol)	Version: 4 Effective Date: June 27, 2014
Supplier/ Manufacturer:	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Material Uses	Industrial solvent	
24 Hour Emergency	Canutec (613) 996-6666	
WHMIS		
		
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR		
HMIS Ratings for this product are: Health 2, Flammability 3, Reactivity 0		

Section 2. Composition and Information on Ingredients		
Name	CAS#	% by weight
Toluene	108-88-3	90 - 100
See Section 8 for information on permissible exposure limits and threshold limit values		

Section 3. Hazards Identification	
Physical State and Appearance	Clear, colourless liquid with hydrocarbon odour
Hazard Summary	Irritant
Routes of Exposure	Skin – contact and absorption, eye contact, inhalation, ingestion
Potential Acute Health Effects	<p>Skin: Irritant. 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.</p> <p>Eyes: Irritant. Symptoms include stinging, tearing, redness and</p>

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	swelling of the eyes Inhalation: Breathing of vapours or mists is unlikely to cause harmful effects at levels below recommended exposure limits. Ingestion: If large amounts are swallowed, product may be aspirated into the lungs causing inflammation and other lung injury
Medical Conditions Aggravated by Exposure	Pre-existing conditions such as: asthma (or upper respiratory tract conditions), skin – eczema, kidney, central nervous system, auditory system. People with pre-existing heart conditions may experience arrhythmias (irregular heartbeat) if exposed to high concentrations.
See Toxicological Information – Section 11	
Additional Hazard Identification Remarks	Over exposure may lead to loss of hearing, mild reversible liver and kidney damage, disturbances in gait, memory loss and personality changes.

Section 4. First Aid Measures	
Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Flush area with water. 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	Rinse mouth with water if conscious. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.
Notes to Physician	Over exposure may lead to cardiac arrhythmias. Potential for aspiration of material if ingested.
Additional First Aid Remarks	None

Section 5. Fire Fighting Measures	
Flammability of the Product	Flammable liquid
Flash Point	4.44 °C
Explosive Limits	LEL: 1.27 % UEL: 7 %
Auto Ignition Temperature	480 °C
Static Discharge	Yes
Suitable Extinguishing Media	Foam, carbon dioxide, dry chemical
Hazardous Combustion Products	Carbon monoxide, carbon dioxide, hydrocarbons

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Precautions for Fire Fighting	Fire fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire. Vapours may travel along the ground and may be ignited by pilot lights, flames, sparks, heaters, electric motors, static discharge or any other source of ignition.
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Section 6. Accidental Release Measures	
Personal Precautions	Gloves (nitrile), coveralls (Nomex), chemical resistant footwear, safety glasses
Environmental Precautions	Do not allow product to enter surface drains and watercourses.
Methods for Clean Up	Dike spill. Remove all sources of ignition, sparks and naked flames. Do not allow material to enter sumps, basements or low lying areas – fumes and vapours will accumulate. Soak up spilt material on absorbent, or pump up large volumes with non sparking equipment. Place waste material in a suitable container for disposal. Wash area with water and detergent to remove residues.

Section 7. Handling and Storage	
Handling	Handle with care – Flammable liquid. Ground all drums when in use. Empty containers may contain flammable residues. Do not cut, weld or puncture empty containers.
Storage	Store in a cool dry place. Remove all sources of ignition, sparks and naked flames. Keep containers closed when not in use.

Section 8. Exposure Controls and Personal Protection			
Exposure Guidelines	TWA: 8 Hr	STEL: 15 min	Ceiling
Toluene	50 ppm CAD AB OEL		
Exposure Controls	Local exhaust ventilation		
Personal Protection			
Respiratory	If exposure limits are exceeded an air purifying respirator fitted with organic vapour cartridges must be worn		
Skin	Gloves (nitrile), coveralls (Nomex), chemical resistant footwear		
Eyes	Safety glasses		
Other	None		

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Section 9. Physical and Chemical Properties	
Physical State and Appearance	Clear, colourless liquid with hydrocarbon odour
Odour Threshold	No data
pH	Not applicable
Boiling Point	110.6 °C
Melting Point / Freezing point	-94.9 °C
Evaporation Rate	2.00 (N-Butyl acetate)
Vapour Density	3.1 (air =1)
Vapour Pressure	3.78 kPa @ 25 °C
Specific Gravity	0.87
Solubility in Water	Negligible in water
% Volatile	100 %
Other Data	None

Section 10. Stability and Reactivity	
Chemical Stability	Stable
Hazardous Polymerisation	Will not occur
Conditions to Avoid	Extreme, heat, naked flames, sources of ignition
Materials to Avoid	Strong acids. Strong oxidising agents
Hazardous Decomposition Products	Not expected to decompose under normal conditions of use

Section 11. Toxicological Information	
Principle Routes of Exposure	
Skin:	Irritant. 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:	Irritant. Symptoms include stinging, tearing, redness and swelling of the eyes
Inhalation:	Breathing of vapours or mists are unlikely to cause harmful effects at levels below recommended exposure limits.
Ingestion:	If large amounts are swallowed, product may be aspirated into the lungs causing inflammation and other lung injury
Additional Information	
Acute Toxicity	
Toluene	LD50: 2.6 g/kg (Rat, oral) LC50: 8000 ppm (Rat, inhalation) 4Hr LD50: 12124 mg/kg (Rabbit, dermal)

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Chronic Toxic Effects – Liver and kidney damage
Carcinogenicity – Not listed
Reproductive Toxicity / Teratogenicity / Embryotoxicity / Mutagenicity – Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects

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
BOD and COD	No data
Biodegradability / OECD	No data
Toxicity of the Products of Biodegradation	No data
Special Remarks	None

Section 13. Disposal Considerations
Dispose of in accordance with local, provincial and federal regulations

Section 14. Transport Information	
TDG Classification	Toluene UN 1294 Class 3 Packing Group II
Emergency Response Guide #	ERG # 130
Marine Pollutant	No
Special Precautions	None

Section 15. Regulatory Information	
Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL) or 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
WHMIS Hazard Class	B3 D2B
Additional Information	None

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Section 16. Other Information**Prepared by:**

Chemfax Products Ltd., Technical Department

Date Prepared: 28 September, 2012**Revision Date:** 27 June, 2014**Disclaimer**

Notice to reader

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