

Section 1 - Chemical Product and Company Identification

Product Name	Toluene
Synonyms	benzyl hydride; methylbenzene; phenylmethane; toluol.
Product Use	Solvent, petroleum diluent
Restriction on Use	None identified
Manufacturer/Supplier	CFR Chemicals 38451 Range Road 22 County of Red Deer T4E 2N6
General Assistance	1 (877) 269-3419
Emergency Telephone	613-966-6666 (CANUTEC 24 Hour Phone Number)
Date of Preparation of SDS	April 1, 2017

Section 2 – Hazard Identification

Signal Word
GHS Pictogram(s)

Danger



Target Organs

Narcotic Effects

Hazard Statement:

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life

Precautionary Statement

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.



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Response

P321	Specific Treatment: See this Label
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE / DOCTOR.
P303 + P361 + P353	IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P331	DO NOT induce vomiting.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish.

Storage

P403 + P233 + P235	Store in well-ventilated place. Keep container tightly closed. Keep Cool.
P405	Store locked up.

Disposal

P501	Dispose of contents/container to an approved waste disposal unit.
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GHS Classification

Flammable liquids (Category 2)
Skin corrosion/irritation (Category 2)
Toxic to reproduction (Category 2)
Specific target organ toxicity - single exposure (Category 3, narcotic effects)
Specific target organ toxicity - repeated exposure (Category 2, Central Nervous System (CNS))
Aspiration hazard (Category 1)
Hazardous to the aquatic environment, acute hazard (Category 2)

HMIS Classification

Health Hazard	3
Chronic Health Hazard	*
Flammability	1
Physical Hazards	2

Section 3 – Composition Information on Ingredients

HAZARDOUS INGREDIENT	Hazardous Ingredient, Synonyms	PERCENT	CAS NUMBER
Toluene	benzyl hydride; methylbenzene; phenylmethane; toluol.	100%	108-88-3
Chemical Formula	* = Various ** = Mixture *** = Proprietary C_7H_8		

Section 4 - First Aid Measures

Inhalation

Move victim to fresh air and keep at rest in a position comfortable for breathing.
If it is suspected that vapour is still present, the rescuer should wear an

	appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular, or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison centre or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.
Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower lids. Check for and remove contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
Skin Contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shows. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Get medical attention immediately. Call a poison control centre or physician. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.
Most Important Symptoms/Effects	
Acute	No data available.
Delayed	No data available.
Note to Physician	Treat symptomatically.

Section 5 – Fire-Fighting Measures

Flash Point (°C)	4°C
Flash Point Method	PMCC
Auto Ignition Temperature	480°C
Conditions of Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/ hot surface. No smoking.
Extinguishing Media	Use water spray (fog), alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable Extinguishing Media	Water streams.
Unusual Fire/	
Explosion Hazard	No data available.
Hazardous Combustion	
Products	Carbon oxides
Special Protective Equipment and	
Precautions for Firefighters	Wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode.

Section 6 – Accidental Release Measures

Personal precautions	Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Contain free liquid if possible. Pick up by covering with an activated carbon absorbent or other suitable inert absorbent material (e.g. sand, sawdust, general-purpose binder). Take up & place in closed containers. Ventilate area & wash spill site after material pickup is complete. Contain and dispose of wash water in accordance with local regulations.

Section 7 – Handling and Storage

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.
Conditions for safe storage	Keep container tightly closed in a dry and well-ventilated place.
Incompatible Conditions	Heat, flames and sparks.
Incompatible Materials	Strong oxidizing agents. Reducing agents. Acids. Alkalis.

Section 8 – Exposure Controls / Personal Protection

Occupational Exposure Limits

Ingredient Name

Toluene

Exposure Limits

Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)

TWA: 50ppm

Personal protective equipment

Eye/face protection	Chemical safety glasses with side shields to prevent eye contact. As a general rule do not wear contact lenses when handling chemicals.
Skin protection	Wear chemical resistant gloves, impermeable protective clothing and safety shoes.
Respiratory protection	Use NIOSH approved respirators and components.
General hygiene	
Considerations	Handle in accordance with good industrial hygiene and safety.
Specific engineering controls	Use mechanical exhaust or laboratory fumehood to avoid exposure. Safety shower, eye wash, and fire extinguisher should be present.

Section 9 – Physical and Chemical Properties

Physical State	Liquid	Water Solubility	Insoluble
Appearance & Odour	Clear, colourless aromatic	Boiling Point	Not applicable.

	odous.		
Vapour Pressure	1 kPa @ 20.0°C	Boiling Range	136 – 145°C
Odour Threshold	Not available.	Melting Point	-48°C
Evaporation Rate	13.5	Freezing Point	-48°C
Vapour Density	3.7	Lower Explosive Limit (LEL)	1.0 %
Specific Gravity	0.87	Upper Explosive Limit (UEL)	7.1 %
pH	Not available.	Partition coefficient (n-octanol/water)	3.15
Flammability (Solid, Gas)	Not applicable.	Viscosity	Not available.
Decomposition Temperature	Not available.		

Section 10 – Stability and Reactivity

Reactivity	Heating may cause fire.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available
Conditions to avoid	Heat, flames and sparks.
Materials to avoid	Strong oxidizing agents.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides. Other decomposition products - No data available

Section 11- Toxicological Information

Information on Likely Routes of Exposure

Inhalation:

In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea. Icke klassificerad som aspirationstoxisk (Not classified as asp. tox.)

Skin contact

Prolonged or frequent contact may cause redness, itching, eczema and skin cracking. Defats the skin. **Eye contact**
Causes eye irritation.

Eye contact

May irritate and cause redness and pain..

Ingestion

Ingestion of large amounts may cause unconsciousness. However, ingestion may cause nausea, headache, dizziness and intoxication. Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhea. May cause irritation to the mouth and throat.

Acute and Chronic Toxicity

No data available

Acute toxicity

Product/Ingredient Name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation gas	Rat	>20mg/L	4 Hr
	LD50 Oral	Rat	5580mg/kg	-



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LD50 Dermal Rabbit 12223mg/kg -

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation

Causes eye irritation.

Respiratory or skin sensitization

No data available

Mutagenicity

Not assigned.

Carcinogenicity

Suspected of causing cancer.

IARC:

Ethylbenzene

2B Possibly carcinogenic to humans

Xylene (o, m, p isomers)

3 Not classifiable as to carcinogenicity in humans

Reproductive toxicity

Not assigned.

Teratogenicity

No known significant effects or critical hazards.

Specific target organ toxicity - single exposure (Globally Harmonized System)

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

Not assigned.

Aspiration hazard

May be fatal if swallowed and enters airways.

Delayed and Immediate Effects and also Chronic Effects from Short and Long Term Exposure

Short Term Exposure

Potential immediate Health Effects No data available.

Potential Delayed Health Effects No data available.

Long Term Exposure

Potential immediate Health Effects No data available.

Potential Delayed Health Effects No data available.

Potential Chronic Effects No data available.

Synergistic effects No data available

Section 12 – Ecological Information

Toxicity

Product / Ingredient Name	Result	Species	Exposure
Toluene	Acute LC50 24mg/L	Fish – Onchohynchus mykiss	96 Hr
	Acute EC50 84mg/L	Daphnia – Daphnia magna	24 Hr
	Acute LC50 13mg/L	Fish – Lepomis macrochirus	96 Hr

Persistence and degradability

Biodegradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Other adverse effects No data available

Section 13 – Disposal Considerations

Product	This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging	Dispose of as unused product.

Section 14 – Transportation Information

CANADA Transportation of Dangerous Goods (TDG)

Shipping Name	UN1294, TOLUENE, 3. PG II
Class	3
UN Number	UN1294
Packaging Group:	II
Label	



Environmental hazards	Not a marine pollutant.
Transportation in bulk, if applicable	No data available
Special Precautions	No data available

Section 15 – Regulatory Information**DSL (Canadian Domestic Substances List)
and CEPA (Canadian Environmental Protection Act)**

All components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

TSCA Inventory 12(b)

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations and the SDS contains all the information required by the Hazardous Products Regulations.

Section 16 – Other Information**REVISION SUMMARY:**

Date of Preparation	April 1, 2017
Date of Revision	March 15, 2022

SDS Prepared by: CFR Lab Manager



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