

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 Danger

GHS Pictogram(s)



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. |



Safety Data Sheet - GHS Toluene

Date of Revision: June 19, 2019

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. |
|------|---|

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 | C ₇ H ₈ | | |

* = Various ** = Mixture *** = Proprietary

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 vas of 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 shoes. 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 | Exposure Limits |
|-----------------|---|
| Toluene | 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 | - |

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 | June 19, 2019 |

SDS Prepared by: CFR Lab Manager



Safety Data Sheet - GHS

Toluene

Date of Revision: June 19, 2019

CFR Chemicals Inc. provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. CFR Chemicals Inc. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, CFR CHEMICALS INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OR RELIANCE UPON THIS INFORMATION.