



## Material Safety Data Sheet

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### 1. Identification of Substance/Preparation and Company/Undertaking:

#### Name of Product *Toluene*

NFPA Rating: Health: 2; Flammability: 3; Instability: 0

Name of Manufacturer: **CFS Chemicals**  
201 Wilkinson Rd  
Brampton,  
ONTARIO L6T 4M4  
1 (866) 669-7608

National Response in Canada: CANUTEC--1(613)996-6666  
24 Hour Emergency Response in US: CHEMTREC--1(800)424-9300

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### 2. Composition and Information on Ingredients:

Hazardous Ingredient: Toluene >99%  
CAS No.: 108-88-3  
LD<sub>50</sub> OF MATERIAL: 636 mg/kg (rat, oral)  
LC<sub>50</sub> OF MATERIAL: 49 gm/m<sup>3</sup>/4H (rat, inhalation)

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### 3. Hazards Identification:

**POISON! DANGER! HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. VAPOR HARMFUL. FLAMMABLE LIQUID AND VAPOR. MAY AFFECT LIVER, KIDNEYS, BLOOD SYSTEM, OR CENTRAL NERVOUS SYSTEM. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.**

#### *Potential Health Effects:*

*Inhalation:* Causes respiratory tract irritation. Inhalation of high concentrations (>200 ppm) of toluene are clearly associated with CNS encephalopathy, headache, depression, lassitude (weakness, exhaustion), impaired coordination, transient memory loss, and impaired reaction time.

*Eye:* Causes severe eye irritation with redness and pain.

*Skin:* Causes irritation. May be absorbed through skin

*Ingestion:* Swallowing may cause abdominal spasms and other symptoms that parallel over-exposure from inhalation. Aspiration of material into the lungs can cause chemical pneumonitis, which may be fatal

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**4. First Aid Measures:**

*Inhalation:* Remove to fresh air. If breathing has stopped, administer artificial respiration and seek medical attention.

*Contact with skin:* Start flushing while removing contaminated clothing. Wash area well with soap and water. If irritation persists obtain medical attention.

*Contact with eyes:* Flush eye and surrounding skin with a large volume of water, using an eyewash fountain for at least 15 minutes. Thoroughly rinse under lids. Obtain medical attention as soon as possible after first aid has been completed.

*Ingestion:* DO NOT INDUCE VOMITING. Keep person warm & quiet and get immediate medical attention. Guard against aspiration into the lungs by having the individual turn onto their side. If vomiting occurs spontaneously keep head below hips to prevent aspiration of liquid into the lungs.

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**5. Fire-fighting Measures:**

*Extinguishing Media:* Use water spray, dry chemical, carbon dioxide, or appropriate foam. Solid streams of water may be ineffective and spread material.

*Appropriate:* wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear

*Avoid:* Contact with strong oxidizers may cause fire or explosion.

*Special protective equipment for firefighters:* In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water spray may be used to keep fire exposed containers cool.

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**6. Accidental Release Measures:**

*Personal protection:* refer to section 8

*Environmental precautions:* Avoid runoff into storm sewers and ditches which lead to waterways.

*Methods for cleaning up:* Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Provide ventilation. Use only non-sparking tools and equipment. Control runoff and isolate discharged material for proper disposal. Use water spray to cool and disperse vapors and protect personnel

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**7. Handling and Storage:**

*Handling:* Never use welding or cutting torch on or near drum. Use grounding cables and spark resistant tools. Avoid splash filling. Follow label warnings even when container is empty.

*Storage:* Store in a cool well ventilated location away from ignition sources.

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**8. Exposure Controls and Personal Protection:**

*Personal protection:*

*Eyes:* Wear chemical splash goggles.

*Skin:* Wear appropriate gloves to prevent skin exposure.

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*Clothing:* Wear appropriate protective clothing to prevent skin exposure.

*Respirators:* Wear a properly fitted NIOSH/MSHA approved air purifying full face respirator with organic vapour canister if the threshold limit value is exceeded in the workplace.

*Environmental precautions:* Good ventilation (typically 10 air changes per hour) should be sufficient to control airborne levels. Supplementary local exhaust ventilation, close systems, or respiratory protection may be needed in special circumstances, such as, poorly ventilated spaces, mechanical generation of dusts, heating, drying, etc.

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**9. Physical and Chemical Properties:**

State: liquid

Colour: clear, colorless

Odour: sweetish odor – pleasant odor – benzene -like

Important health, safety and environmental information:

pH: Not applicable

Boiling Point: 110°C

Flash Point: 4°C

Flammability (solid/gas): Yes, with air at or above the flashpoint

Explosive properties: lel : 1.2%, uel : 7.0%

Vapour pressure: 10mm Hg

Relative density: 0.8669

Solubility in water: Insoluble

Viscosity: 0.59 cps @ 20°C

Vapour density: 3.1 (air=1)

Evaporation rate: (n-butyl acetate) 2.4

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**10. Stability and Reactivity:**

*Stability:* Stable under normal operating conditions

*Conditions to avoid:* heat, flame, ignition sources and incompatibles.

*Materials to avoid:* strong oxidizers, nitric and sulfuric acids, chlorine, nitrogen tetraoxide; will attack some forms of plastics, rubber, coatings

*Hazardous decomposition products:* Carbon dioxide and carbon monoxide may form when heated to decomposition.

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**11. Toxicological Information:**

Acute toxicity of preparation:

ROUTES OF ENTRY:

ACUTE EXPOSURE

INGESTION: May cause irritation to the mouth, throat, and gastrointestinal tract, nausea, headache, abdominal pain, vomiting, and visual disturbances.

SKIN ABSORPTION: May be absorbed through the skin causing irritation, redness, defatting & dermatitis

SKIN CONTACT: Removes natural oils and fats from the skin. May cause mild irritation, redness, cracking, and drying.

EYE CONTACT: May cause irritation, tearing, and blurring.

INHALATION: Nausea, dizziness, irritation.

Long-term toxicity:

CHRONIC EXPOSURE

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INGESTION: Not available.  
SKIN ABSORPTION: Repeated exposure may cause systemic poisoning, brain disorders, impaired vision and blindness and deafness (audiotoxin).  
SKIN CONTACT: Prolonged or repeated contact may lead to dermatitis.  
EYE CONTACT: Not available.  
INHALATION: Not available.

CARCINOGENICITY: Not listed and not expected.  
TERATOGENICITY: Not expected.  
REPRODUCTIVE TOXICITY: Not expected.  
MUTAGENICITY: Not expected.  
SYNERGISTIC PRODUCTS: None known.

EXPOSURE LIMIT OF MATERIAL  
THRESHOLD LIMIT VALUE: 50 ppm (ACGIH)  
LD<sub>50</sub> OF MATERIAL: 636 mg/kg (rat, oral)  
LC<sub>50</sub> OF MATERIAL: 49 gm/m<sup>3</sup>/4H (rat, inhalation)

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**12. Ecological Information:**

*Ecotoxicity:* Bluegill LC50=17 mg/L/24H Shrimp LC50=4.3 ppm/96H Fathead minnow LC50=36.2 mg/L/96H Sunfish (fresh water) TLm=1180 mg/L/96H  
*Mobility:* When released into the soil, this material may evaporate to a moderate extent. When released into the soil, this material is expected to leach into groundwater  
*Persistence and degradability:* From soil, substance evaporates and is microbially biodegraded. In water, substance volatilizes and biodegrades Photochemically produced hydroxyl radicals degrade substance  
*Bioaccumulative potential:* This material is not expected to significantly bioaccumulate.

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**13. Disposal Considerations:**

Consult local hazardous or chemical waste disposal agency for regulations.

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**14. Transport Information:**

TDG (road):  
UN Number: UN1294  
Class: 3  
Proper shipping name: Toluene  
Packing group: II  
ICAO/IATA (air):  
UN Number UN1294  
Class: 3  
Proper shipping name: Toluene  
Packing group: II  
DOT:  
UN Number: UN1294  
Class: 3  
Proper shipping name: Toluene  
Packing group: II

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15. **Regulatory Information:**

**Canada - DSL/NDSL**

CAS# 108-88-3 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of B2, D2A, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List**

CAS# 108-88-3 is listed on the Canadian Ingredient Disclosure List.

**US FEDERAL**

**TSCA**

CAS# 108-88-3 is listed on the TSCA inventory.

**Health & Safety Reporting List**

CAS# 108-88-3: Effective 10/4/82, Sunset 10/4/92

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**

CAS# 108-88-3: 1000 lb final RQ; 454 kg final RQ

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**SARA Codes**

CAS # 108-88-3: immediate, fire.

**Section 313**

This material contains Toluene (CAS# 108-88-3, >99%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**Clean Air Act:**

CAS# 108-88-3 is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**

CAS# 108-88-3 is listed as a Hazardous Substance under the CWA. CAS# 108-88-3 is listed as a Priority Pollutant under the Clean Water Act. CAS# 108-88-3 is listed as a Toxic Pollutant under the Clean Water Act.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 108-88-3 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

**California Prop 65**

WARNING: This product contains Toluene, a chemical known to the state of California to cause

developmental reproductive toxicity.

California No Significant Risk Level: None of the chemicals in this product are listed.

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**16. Other Information:**

N/A

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses or damages of any third party or for lost profits of any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

Date of Revision: October 24, 2013