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**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**1. Identification of the substance/mixture and of the company/undertaking**
**1.1. Product identifier**

Trade name : TOLUENE HPLC

Product code : SS0106501000

Identification of the product : Toluene  
 CAS No: 108-88-3  
 EC No :203-625-9  
 Annex No :601-021-00-3

Chemical formula : C<sub>7</sub>H<sub>8</sub> - (C(CH<sub>3</sub>)CHCHCHCHCH)

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use : Industrial. For professional use only.

**1.3. Details of the supplier of the safety data sheet**

Company identification : SUVCHEM  
 Chaitanya Tower, 2nd Floor, Office # 206,  
 Siddharth Nagar, S.V. Road,  
 Goregaon (West), Mumbai - 400062,  
 Maharashtra, India.  
 Contact: +91 22 28725393 / 94 / 95  
 Email ID: info@suvchem.com/care@suvchem.com

**1.4. Emergency telephone number**

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [ Office hours ]

**2. Hazards identification -DSD**
**2.1. Classification of the substance or mixture**
**Classification EC 67/548 or EC 1999/45**

Classification : F; R11  
 Repr. Cat. 3; R63  
 Xn; R65-48/20  
 R67  
 Xi; R38

**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**

Health hazards : Reproductive toxicity - Unborn Child - Category 2 - Warning (CLP : Repr. 2) H361  
 Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation -  
 Category 3 - Warning (CLP : STOT SE 3) H335  
 Specific Target Organ Toxicity - Single exposure - Narcotic effects - Category 3 -  
 Warning (CLP : STOT SE 3) H336  
 Specific Target Organ Toxicity - Repeated exposure - Category 2 - Warning (CLP :  
 STOT RE 2) H373

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**2. Hazards identification -DSD (continued)**
**Physical hazards**

 Aspiration hazard - Category 1 - Danger (CLP : Asp. Tox. 1) H304  
 Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315  
 : Flammable liquids - Category 2 - Danger (CLP : Flam. Liq. 2) H225

**2.2. Label elements**
**Labelling EC 67/548 or EC 1999/45**
**Symbol(s)**

**Symbol(s)**

 : F : Highly flammable  
 Xn : Harmful

**R Phrase(s)**

 : R11 : Highly flammable.  
 R38 : Irritating to skin.  
 R48/20 : Harmful : danger of serious damage to health by prolonged exposure through inhalation.  
 R63 : Possible risk of harm to the unborn child.  
 R65 : Harmful : may cause lung damage if swallowed.  
 R67 : Vapours may cause drowsiness and dizziness.

**S Phrase(s)**

 : S2 : Keep out of the reach of children.  
 S36/37 : Wear suitable protective clothing and gloves.  
 S62 : If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.

**Contains**

: Toluene

**Labelling Regulation EC 1272/2008 (CLP)**
**Hazard pictograms**

**Signal words**

: Danger

**Hazard statements**

 : H225 : Highly flammable liquid and vapour.  
 H304 : May be fatal if swallowed and enters airways.  
 H315 : Causes skin irritation.  
 H335 : May cause respiratory irritation.  
 H336 : May cause drowsiness or dizziness.  
 H373 : May cause damage to organs through prolonged or repeated exposure.  
 H361d: Suspected of damaging the unborn child.

**Precautionary statements**
**• General**

 : P102: Keep out of reach of children.  
 P103: Read label before use.  
 P101: If medical advice is needed, have product container or label at hand.  
 P201: Obtain special instructions before use.

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## MATERIAL SAFETY DATA SHEET (MSDS)

### TOLUENE HPLC

#### 2. Hazards identification -DSD (continued)

- **Prevention** : P240: Ground/bond container and receiving equipment.  
 P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.  
 P210: Keep away from heat, sparks, open flames or hot surfaces. - No smoking.  
 P280: Wear protective gloves, protective clothing, eye protection, face protection.  
 P271: Use only outdoors or in a well-ventilated area.  
 P260: Do not breathe dust, fume, gas, mist, vapours, spray.  
 P233: Keep container tightly closed.  
 P264: Wash thoroughly after handling.
  - **Response** : P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.  
 P302+P352: IF ON SKIN : Wash with plenty of soap and water.  
 P308+P313: If exposed or concerned : get medical advice.  
 P332+P313: If skin irritation occurs : Get medical advice.  
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.  
 P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.  
 P363: Wash contaminated clothing before reuse.  
 P314: Get medical advice if you feel unwell.  
 P370+P378: In case of fire: Use for extinction.
  - **Storage** : P403+P233: Store in well-ventilated place. Keep container tightly closed.  
 P403+P235: Store in well-ventilated place. Keep cool.  
 P405: Store locked up.
  - **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
  - Contains** : Toluene
- 2.3. Other hazards**
- Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

#### 3. Composition/information on ingredients

**Substance / Preparation** : Toluene

EC No :203-625-9  
 Annex No :601-021-00-3  
 Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Toluene	: 100 %	108-88-3	203-625-9	601-021-00-3	----	F; R11 Repr. Cat. 3; R63 Xn; R65-48/20 R67 Xi; R38 ----- Flam. Liq. 2 _ H225 Asp. Tox 1 _ H304 Repr. 2 _ H361d Skin Irrit. 2 _ H315 STOT SE 3 _ H335 STOT RE 2 _ H373 STOT SE 3 _ H336

Contains no other components or impurities which will influence the classification of the product.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**4. First aid measures**
**4.1. Description of first aid measures**

Inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
Skin contact	: Wash contaminated clothing before reuse. If skin irritation occurs : Wash with plenty of soap and water. Get medical advice. Specific treatment (see on this label). Remove/Take off immediately all contaminated clothing.
Eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
Ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

**4.2. Most important symptoms and effects, both acute and delayed**

Symptoms relating to use	: Causes damage to organ. May be fatal if swallowed and enters airways. Causes skin irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child.
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**4.3. Indication of any immediate medical attention and special treatment needed**

General information	: Never give anything by mouth to an unconscious person. If exposed or concerned : get medical advice.
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**5. Fire-fighting measures**
**5.1. Extinguishing media**

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
Surrounding fires	: Use water spray or fog for cooling exposed containers.

**5.2. Special hazards arising from the substance or mixture**

Flammable class	: Highly flammable liquid and vapour.
Hazardous combustion products	: Under fire conditions, hazardous fumes will be present.

**5.3. Advice for fire-fighters**

Protection against fire	: Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures	: Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**6. Accidental release measures**
**6.1. Personal precautions, protective equipment and emergency procedures**

<b>For emergency responders</b>	: Equip cleanup crew with proper protection. Ventilate area. Avoid breathing dust, fume, gas, mist, vapours, spray.
<b>Technical measures</b>	: Use special care to avoid static electric charges.
<b>Special precautions</b>	: Remove ignition sources. No naked lights. No smoking.
<b>For non-emergency personnel</b>	: Evacuate unnecessary personnel.

**6.2. Environmental precautions**

<b>Environmental precautions</b>	: Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
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**6.3. Methods and material for containment and cleaning up**

<b>Clean up methods</b>	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
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**6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

**7. Handling and storage**
**7.1. Precautions for safe handling**

<b>Handling</b>	: Handle empty containers with care because residual vapours are flammable. Obtain special instructions before use. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area.
<b>Technical protective measures</b>	: Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment.
<b>Special precautions</b>	: No naked lights. No smoking. Avoid breathing dust, fume, gas, mist, vapours, spray.

**7.2. Conditions for safe storage, including any incompatibilities**

<b>Storage</b>	: Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Ground/bond container and receiving equipment. Keep container tightly closed.
<b>Storage - away from</b>	: Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

**7.3. Specific end use(s)**

<b>Specific end use(s)</b>	: None.
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**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**8. Exposure controls/personal protection**
**8.1. Exposure controls**

<b>Personal protection</b>	: Avoid all unnecessary exposure.
• <b>Respiratory protection</b>	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.
• <b>Hand protection</b>	: Wear protective gloves.
• <b>Skin protection</b>	: Wear suitable protective clothing.
• <b>Eye protection</b>	: Chemical goggles or safety glasses.
• <b>Others</b>	: When using, do not eat, drink or smoke.

**8.2. Control parameters**

<b>Occupational Exposure Limits</b>	: No data available.
<b>ILV (EU) - 8 H - [ppm]</b>	: ( 50 Skin. )
<b>ILV (EU) - 8 H - [mg/m³]</b>	: ( 192 Skin. )
<b>ILV (EU) - 15 min - [ppm]</b>	: ( 100 Skin. )
<b>ILV (EU) - 15 min - [mg/m³]</b>	: ( 384 Skin. )
<b>OEL (UK)-LTEL [ppm]</b>	: 50
<b>OEL (UK)-STEL [ppm]</b>	: 150

**9. Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

<b>Physical state at 20 °C</b>	: Liquid.
<b>Colour</b>	: Clear Colorless
<b>Odour</b>	: Aromatic benzene-like
<b>Odour threshold</b>	: No data available.
<b>pH value</b>	: No data available.
<b>Melting point [°C]</b>	: -95
<b>Decomposition point [°C]</b>	: N/A
<b>Critical temperature [°C]</b>	: N/A
<b>Auto-ignition temperature [°C]</b>	: 535
<b>Flammability (solid, gas)</b>	: Flammable. Highly flammable liquid and vapour.
<b>Flash point [°C]</b>	: 4°C
<b>Boiling point [°C]</b>	: 110 - 111 °C
<b>Initial boiling point [°C]</b>	: 110 °C
<b>Final boiling point [°C]</b>	: 111 °C
<b>Evaporation rate</b>	: 2,24

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**9. Physical and chemical properties (continued)**

Vapour pressure [20°C]	: 22 @ 20C
Vapour pressure mm/Hg	: 22 @ 20C
Vapour density	: 3,14
Density [g/cm3]	: 0,86
Relative density, gas (air=1)	: 3.2
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Insoluble.
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm2/s]	: N/A

**9.2. Other information**

Explosive properties	: N/A
Explosion limits - upper [%]	: 7
Explosion limits - lower [%]	: 1.2
Oxidising properties	: No data available.

**10. Stability and reactivity**
**10.1. Reactivity**

Reactivity	: Not established.
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**10.2. Chemical stability**

Chemical stability	: Stable under recommended storage conditions.
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**10.3. Possibility of hazardous reactions**

Hazardous reactions	: Not established.
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**10.4. Conditions to avoid**

Conditions to avoid	: Direct sunlight. Extremely high or low temperatures. Open flame.
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**10.5. Incompatible materials**

Materials to avoid	: Strong acids. Strong bases.
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**10.6. Hazardous decomposition products**

Hazardous decomposition products	: Fumes. Carbon monoxide. Carbon dioxide. May release flammable gases.
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**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**11. Toxicological information**
**11.1. Information on toxicological effects**
**Acute toxicity**

- Inhalation : May be fatal if swallowed and enters airways.
- Dermal : Based on available data, the classification criteria are not met.
- Ingestion : May be fatal if swallowed and enters airways.
- Rat oral LD50 [mg/kg] : 7000
- Corrosion** : Based on available data, the classification criteria are not met.
- Irritation** : Causes skin irritation.  
May cause respiratory irritation.
- Sensitization** : Based on available data, the classification criteria are not met.
- Mutagenicity** : Based on available data, the classification criteria are not met.
- Carcinogenicity** : Based on available data, the classification criteria are not met.
- Toxic for reproduction** : Suspected of damaging the unborn child.
- STOT-single exposure** : May cause drowsiness or dizziness.
- STOT-repeated exposure** : May cause damage to organs through prolonged or repeated exposure.
- Aspiration hazard** : May be fatal if swallowed and enters airways.

**12. Ecological information**
**12.1. Toxicity**

**Toxicity information** : Not established.

**12.2. Persistence - degradability**

**Persistence - degradability** : Biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential** : Not established.

**12.4. Mobility in soil**

**Mobility in soil** : Not established.  
**Log Pow octanol / water at 20°C** : 2.6

**12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

**12.6. Other adverse effects**

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**12. Ecological information (continued)**

**Environmental precautions** : Avoid release to the environment.

**13. Disposal considerations**
**13.1. Waste treatment methods**

**General** : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.  
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Special precautions** : Handle empty containers with care because residual vapours are flammable.  
 Hazardous waste due to toxicity.

**14. Transport information**
**14.1. Land transport (ADR-RID)**

**Proper shipping name** : TOLUENE  
**UN N°** : 1294  
**H.I. nr** : 33  
**ADR - Class** : 3  
**Labelling - Transport** : 3 : Flammable liquid.



**ADR - Classification code** : F1  
**ADR - Group** : II  
**ADR - Packing instructions** : P001 R001  
**ADR - Limited Quantity** : 1 L  
**ADR - Tunnel code** : D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.


**14.2. Sea transport (IMDG) [English only]**

**Proper shipping name** : TOLUENE  
**UN N°** : 1294  
**IMO-IMDG - Class or division** : 3 : Flammable liquid.

**MATERIAL SAFETY DATA SHEET (MSDS)**
**TOLUENE HPLC**
**14. Transport information (continued)**

IMO-IMDG - Packing group : II  
 IMO-IMDG - Packing instructions : P001  
 IMO-IMDG - Limited quantities : 1 L  
 IMO-IMDG - Marine pollution : No  
 EMS-Nr : F-E S-D

**14.3. Air transport (ICAO-IATA) [English only]**

Proper shipping name : TOLUENE  
 UN N° : 1294  
 IATA - Class or division : 3 : Flammable liquid.  
 IATA - Packing group : II  
 IATA - Passenger and Cargo Aircraft : ALLOWED  
   - Passenger and Cargo - Packing : 353  
 instruction  
   - Passenger and Cargo - Maximum : 5 L  
 Quantity/Packing  
 IATA - Cargo only : ALLOWED  
   - Cargo only - Packing instruction : 364  
   - Cargo only - Maximum Quantity/ : 60 L  
 Packing  
 IATA - Limited Quantities : 1 L  
 ERG-Nr : 3L

**15. Regulatory information**
**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.  
 REACH Restrictions - Annex XVII : With the exception of those listed below:  
   Annex XVII  
   The components of this product are not subject to restrictions.  
 REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

**15.2. Chemical Safety Assessment**

Chemical Safety Assessment : It has not been carried out.

**16. Other information**

Revision : Revision - See : \*

**MATERIAL SAFETY DATA SHEET (MSDS)**

**TOLUENE HPLC**

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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**End of document**