

## MATERIAL SAFETY DATA SHEET (MSDS)

### BENZENE LR

#### 1. Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Trade name : BENZENE LR

Product code : SS0100800500

Identification of the product : Benzene  
CAS No :71-43-2  
EC No :200-753-7  
Annex No :601-020-00-8

Chemical formula : C<sub>6</sub>H<sub>6</sub>

##### 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  
Carc. Cat. 1; R45  
Muta. Cat. 2; R46  
T; R48/23/24/25  
Xn; R65  
Xi; R36/38

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

Health hazards : Carcinogenicity - Category 1A - Danger (CLP : Carc. 1A) H350  
Specific Target Organ Toxicity - Repeated exposure - Category 1 - Danger (CLP : STOT RE 1) H372  
Aspiration hazard - Category 1 - Danger (CLP : Asp. Tox. 1) H304

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

**Physical hazards**  
 Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315  
 Germ cell mutagenicity - Category 1B - Danger (CLP : Muta. 1B) H340  
 Eye irritation - Category 2A - Warning (CLP : Eye Irrit. 2) H319  
 : 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  
 T : Toxic

**R Phrase(s)**

: R45 : May cause cancer.  
 R46 : May cause heritable genetic damage.  
 R11 : Highly flammable.  
 R36/38 : Irritating to eyes and skin.  
 R48/23/24/25 : Toxic : danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.  
 R65 : Harmful : may cause lung damage if swallowed.

**S Phrase(s)**

: S53 : Avoid exposure - obtain special instructions before use.  
 S45 : In case of accident or if you feel unwell, seek medical advice immediately ( show the label when possible).

**Contains**

: Benzene

**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.  
 H350 : May cause cancer.  
 H340 : May cause genetic defects.  
 H319 : Causes serious eye irritation.  
 H315 : Causes skin irritation.  
 H372 : Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements**

- General
- Prevention

: P201: Obtain special instructions before use.  
 : 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.

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

- P280: Wear protective gloves, protective clothing, eye protection, face protection.  
P260: Do not breathe dust, fume, gas, mist, vapours, spray.  
P233: Keep container tightly closed.  
P264: Wash thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.
- **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.  
P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
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+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.
- Special labelling** : Restricted to professional users. (Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008)
- Contains** : Benzene
- 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** : Benzene  
CAS No :71-43-2  
EC No :200-753-7  
Annex No :601-020-00-8  
Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Benzene	100 %	71-43-2	200-753-7	601-020-00-8	---	F; R11 Carc. Cat. 1; R45 Muta. Cat. 2; R46 T; R48/23/24/25 Xn; R65 Xi; R36/38  Flam. Liq. 2 _H225 Carc. 1A _H350 Muta. 1B _H340 STOT RE 1 _H372 Asp. Tox 1 _H304 Eye irrit 2 _H319 Skin Irrit. 2 _H315

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#### 3. Composition/information on ingredients (continued)

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

#### 4. First aid measures

##### 4.1. Description of first aid measures

Inhalation	: Assure fresh air breathing. Allow the victim to rest.
Skin contact	: Wash contaminated clothing before reuse. If skin irritation occurs : Get medical advice. Specific treatment (see on this label). Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water.
Eye contact	: Get medical advice. If eye irritation persists : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes.
Ingestion	: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor.

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

Symptoms relating to use	: May cause cancer. May cause genetic defects. Causes damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Causes serious eye irritation. Causes skin irritation.
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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 you feel unwell, seek medical advice (show the label where possible).
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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

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#### 5. Fire-fighting measures (continued)

- 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.

#### 6. Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

- For emergency responders** : Equip cleanup crew with proper protection. Ventilate area.
- Technical measures** : Use special care to avoid static electric charges.
- Special precautions** : Remove ignition sources. No naked lights. No smoking.
- For non-emergency personnel** : Evacuate unnecessary personnel.

##### 6.2. Environmental precautions

- Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

##### 6.3. Methods and material for containment and cleaning up

- Clean up methods** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

##### 6.4. Reference to other sections

See section 8. Exposure controls/personal protection

#### 7. Handling and storage

##### 7.1. Precautions for safe handling

- Handling** : Handle empty containers with care because residual vapours are flammable. Wash thoroughly after handling. Obtain special instructions before use. Eliminate all ignition sources if safe to do so. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Do not breathe dust, fume, gas, mist, vapours, spray.
- Technical protective measures** : 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.
- Special precautions** : No naked lights. No smoking.

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

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#### 7. Handling and storage (continued)

**Storage** : Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Keep container tightly closed. Ground/bond container and receiving equipment.

**Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

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

**Specific end use(s)** : None.

#### 8. Exposure controls/personal protection

##### 8.1. Exposure controls

**Personal protection** : Avoid all unnecessary exposure.

- **Respiratory protection** : Wear respiratory protection.
- **Hand protection** : Wear protective gloves.
- **Skin protection** : Wear suitable protective clothing.
- **Eye protection** : Chemical goggles or safety glasses.
- **Others** : When using, do not eat, drink or smoke.

##### 8.2. Control parameters

**Occupational Exposure Limits** : No data available.

#### 9. Physical and chemical properties

##### 9.1. Information on basic physical and chemical properties

**Physical state at 20 °C** : Liquid.

**Colour** : Colorless

**Odour** : Characteristic.

**Odour threshold** : No data available.

**pH value** : No data available.

**Melting point [°C]** : No data available.

**Decomposition point [°C]** : No data available.

**Critical temperature [°C]** : No data available.

**Auto-ignition temperature [°C]** : No data available.

**Flammability (solid, gas)** : Highly flammable liquid and vapour.

**Flash point [°C]** : No data available.

**Initial boiling point [°C]** : No data available.

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**9. Physical and chemical properties (continued)**

Final boiling point [°C]	: No data available.
Evaporation rate	: No data available.
Vapour pressure [20°C]	: No data available.
Vapour density	: No data available.
Density [g/cm <sup>3</sup> ]	: No data available.
Relative density, liquid (water=1)	: No data available.
Solubility in water	: No data available.
Log Pow octanol / water at 20°C	: No data available.
Viscosity at 40°C [mm <sup>2</sup> /s]	: No data available.

**9.2. Other information**

Explosive properties	: No data available.
Explosion limits - upper [%]	: No data available.
Explosion limits - lower [%]	: No data available.
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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**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.

**Corrosion** : Based on available data, the classification criteria are not met.

**Irritation** : Causes serious eye irritation.  
Causes skin irritation.

**Sensitization** : Based on available data, the classification criteria are not met.

**Mutagenicity** : May cause genetic defects.

**Carcinogenicity** : May cause cancer.

**Toxic for reproduction** : Based on available data, the classification criteria are not met.

**STOT-single exposure** : Based on available data, the classification criteria are not met.

**STOT-repeated exposure** : Causes 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.

**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**

CHAITANYA CHS, 2<sup>nd</sup> FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAI 400062, MH, INDIA.  
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#### 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** : BENZENE  
**UN N°** : 1114  
**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** : BENZENE

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**14. Transport information (continued)**

UN N°	: 1114
IMO-IMDG - Class or division	: 3 : Flammable liquid.
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	: BENZENE
UN N°	: 1114
IATA - Class or division	: 3 : Flammable liquid.
IATA - Packing group	: II
IATA - Passenger and Cargo Aircraft	: ALLOWED
- Passenger and Cargo - Packing instruction	: 353
- Passenger and Cargo - Maximum Quantity/Packing	: 5 L
IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 364
- Cargo only - Maximum Quantity/Packing	: 60 L
IATA - Limited Quantities	: 1 L
ERG-Nr	: 3H

**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.
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**MATERIAL SAFETY DATA SHEET (MSDS)**
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**16. Other information**

<b>Revision</b>	: Revision - See : *
<b>Abbreviations and acronyms</b>	: PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
<b>Sources of key data used</b>	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
<b>List of relevant R phrases (heading 3)</b>	: R11 : Highly flammable. R36/38 : Irritating to eyes and skin. R45 : May cause cancer. R46 : May cause heritable genetic damage. R48/23/24/25 : Toxic : danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. R65 : Harmful : may cause lung damage if swallowed.
<b>List of full text of H-statements in section 3</b>	: H225 : Highly flammable liquid and vapour. H304 : May be fatal if swallowed and enters airways. H315 : Causes skin irritation. H319 : Causes serious eye irritation. H340 : May cause genetic defects. H350 : May cause cancer. H372 : Causes damage to organs through prolonged or repeated exposure.
<b>Further information</b>	: None.

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

**DISCLAIMER:**

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** 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.

**End of document**