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1. Identification of the substance/mixture and of the company/undertaking		
1.1. Product identifier		
Trade name : BENZENE AR		
Product code : 22240		
Identification of the product : Benzene		
CAS No : 71-43-2		
Chemical formula : C ₆ H ₆		
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 : MOLYCHEM		
Office: 78/80 Babu Genu Road, Souri Bldg., 2nd Floor, Mumbai – 400 002 (INDIA) Tel:		
+91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442.		
Email: info@molychem.net		
Works: Plot No. B/9, Badlapur M.I.D.C., OPP. Shobhavat Textile Co.,		
Kulgaon, Badlapur (E), DistThane-421 503.		
1.4. Emergency telephone number		
Emergency number : +91 22 4066 8111 (10:00am - 6:00 pm).		
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		
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		
Physical hazards : Flammable liquids - Category 2 - Danger (CLP : Flam. Liq. 2) H225		
2.2. Label elements		
Labelling EC 67/548 or EC 1999/45		

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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). 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 : P201: Obtain special instructions before use.

• 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.

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.

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Tei: +91 22 4066 8111, 2205 7772 . Fax: + 91 22 2203 4442. Email : <u>info@molychem.ne</u> Works: Plot No. B/9, Badlapur M.I.D.C.,OPP.Shobhavat Textile Co.,

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• **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)

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 :

Substance name	Contents	CAS No
Benzene	100%	71-43-2

Substance.

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. 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.

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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.

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).

<u>5. Fire-fighting measures</u>

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.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures For emergency responders : Equip cleanup crew with proper protection. Ventilate area

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

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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

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.

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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. **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/cm3] : 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 [mm2/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. **10.2.** Chemical stability Chemical stability : Stable under recommended storage conditions. 10.3. Possibility of hazardous reactions Hazardous reactions : Not established. **10.4.** Conditions to avoid Conditions to avoid : Direct sunlight. Extremely high or low temperatures. Open flame. **10.5.** Incompatible materials Materials to avoid : Strong acids. Strong bases. **10.6. Hazardous decomposition products** Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide. May release flammable gases.

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<u>11. Toxicological information</u>

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.

<u>12. Ecological information</u>

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

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

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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 **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 : 353 instruction - Passenger and Cargo - Maximum : 5 L **Ouantity**/Packing IATA - Cargo only : ALLOWED - Cargo only - Packing instruction : 364 - Cargo only - Maximum Quantity/: 60 L

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Packing

IATA - Limited Quantites : 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 : Ensure all national/local regulations are observed. **regulations/legislation specific for the substance or mixture**

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

Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative

Sources of key data used : 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

Further information : None.

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End of document Prepared by: MOLYCHEM (INDIA)

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