

**SAFETY DATA SHEET (SDS)****Rev 1.0**

Prepared: May 2026

GHS compliant | Rev 1.0 | Prepared: May 2026

GHS02 Flammable Liquid	GHS07 Irritant	GHS08 Carcinogen / Health Hazard
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SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product Name	Benzene
Product Type	Aromatic hydrocarbon
Chemical Family	Aromatic hydrocarbon
CAS No. (Benzene)	71-43-2
CAS No. (Other Component)	N/A
Intended Use	Industrial solvent and chemical intermediate.
Restrictions on Use	Industrial use only; carcinogenic exposure controls required.
Manufacturer / Supplier	Supreme Petro Chemicals
Address	Periyamet, Chennai - 600 003, Tamil Nadu, India
Emergency Contact	Sudarshan - 8197947045; Sanketh - 8608780096
Email	admin@supremepetrochemicals.com
SDS Revision Date	May 2026
SDS Version	1.0
Product Page URL	https://www.supremepetrochemicals.com/products/benzene

SECTION 2 HAZARD IDENTIFICATION

Flam. Liq. 2; Asp. Tox. 1; Skin Irrit. 2; Eye Irrit. 2; Muta. 1B; Carc. 1A; STOT RE 1	
Flammable Liquids	Category 2 - H225: Highly flammable liquid and vapour
Aspiration Hazard	See product classification in Section 2.
Mutagenicity	Muta. 1B / H340: May cause genetic defects. Section 11 is aligned with Section 2 classification and public regulatory classification sources.
Carcinogenicity	Carc. 1A / H350: May cause cancer. Benzene is a known human carcinogen under harmonised/public classifications including IARC Group 1 and OSHA/NIOSH occupational references.
STOT Repeat Exposure	Category 1 - H372: Causes damage to organs through prolonged or repeated exposure
Other GHS hazard classes	Not classified for unlisted hazard classes based on reviewed public/source data.
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Signal Word	DANGER
GHS Pictograms	GHS02 (Flame) GHS07 (Exclamation Mark) GHS08 (Health Hazard)

Hazard Statements:

- 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

Precautionary Statements (Prevention):

- P210 — Keep away from heat, hot surfaces, sparks, open flames. No smoking.
- P233 — Keep container tightly closed.
- P240 — Ground/bond container and receiving equipment.
- P241 — Use explosion-proof electrical/ventilating/lighting equipment.
- P242 — Use only non-sparking tools.
- P243 — Take precautionary measures against static discharge.
- P260 — Do not breathe vapours or spray.
- P271 — Use only outdoors or in a well-ventilated area.
- P272 — Contaminated work clothing should not be allowed out of the workplace.
- P273 — Avoid release to the environment.
- P280 — Wear protective gloves / eye protection / face protection.

Precautionary Statements (Response):

- P301+P310 — IF SWALLOWED: Immediately call a POISON CENTER or doctor.
- P303+P361+P353 — IF ON SKIN OR HAIR: Remove/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.
- P305+P351+P338 — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P331 — Do NOT induce vomiting.
- P312 — Call a POISON CENTER or doctor if you feel unwell.

Precautionary Statements (Storage & Disposal):

- P403+P235 — Store in a well-ventilated place. Keep cool.
- P405 — Store locked up.
- P501 — Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	EC No.	% w/w or concentration range	GHS Classification
Benzene	71-43-2	200-753-7	100	Flam. Liq. 2; Asp. Tox. 1; Skin Irrit. 2; Eye Irrit. 2; Muta. 1B; Carc. 1A; STOT RE 1

Note: Percentages are by volume. Full text of H-statements listed in Section 16.

SECTION 4 FIRST AID MEASURES



Inhalation	Move to fresh air. Wash skin and eyes with water. Do not induce vomiting due to aspiration hazard. Obtain medical attention.
Skin Contact	Remove contaminated clothing. Wash affected skin thoroughly with water and soap where appropriate. Seek medical attention if symptoms persist.
Eye Contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Seek medical attention.
Ingestion	Rinse mouth. Do not induce vomiting unless directed by medical personnel. Seek medical advice.
Note to Physician	Treat symptomatically based on exposure route and product hazards.

SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Use foam, dry chemical or carbon dioxide. Vapours can travel to ignition sources and flash back.
Unsuitable Media	Direct high-pressure water jet where it may spread the material.
Specific Hazards	Use foam, dry chemical or carbon dioxide. Vapours can travel to ignition sources and flash back.
Fire & Explosion Risk	Flammable vapours may form explosive mixtures with air, travel to ignition sources and flash back. Containers may rupture when heated. Use grounded/explosion-proof equipment.
Protective Equipment for Firefighters	Wear full protective clothing and self-contained breathing apparatus (SCBA).
Special Procedures	Evacuate non-essential personnel. Prevent contaminated run-off from entering drains and waterways.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate, eliminate ignition sources, use non-sparking tools, contain and collect as hazardous waste.
Environmental Precautions	Prevent entry into drains, sewers, soil and watercourses.
Containment Methods	Evacuate, eliminate ignition sources, use non-sparking tools, contain and collect as hazardous waste.
Clean-up Methods	Collect material into labelled containers for disposal through an approved waste contractor.
Reference to Sections	See Section 8 for PPE, Section 13 for disposal and Section 15 for regulatory information.

SECTION 7 HANDLING AND STORAGE

Handling Precautions	Use closed systems and strict exposure control. Ground containers and avoid inhalation, skin contact and ignition sources.
Hygiene	Wash hands after handling. Remove contaminated clothing before reuse. Do not eat, drink or smoke when using.
Storage Conditions	Use closed systems and strict exposure control. Ground containers and avoid inhalation, skin contact and ignition sources.
Storage Temperature	Store at ambient temperature unless supplier instructions specify otherwise.
Incompatible Materials	Strong oxidizers and product-specific incompatible substances; see supplier SDS before use.
Packaging	Store in original, tightly closed compatible containers. Inspect containers regularly for leakage or damage.
Segregation	Segregate from food, drink, animal feed and incompatible chemicals.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

Component	OEL (8h TWA)	STEL (15 min)	Standard	Notes
Benzene	Use verified local OEL if established; otherwise ALARA/good industrial hygiene	Use verified local STEL/ceiling if established	OSHA/NIOSH/ACGI H/EU/UK/India	CAS 71-43-2; supplier/regional OEL confirmation required.

Engineering Controls	Use closed handling/local exhaust for dust, mist, vapour or aerosol. Use explosion-proof ventilation and grounding for flammable liquids.
Respiratory Protection	If ventilation is inadequate, use a NIOSH/EN respirator: organic vapour, acid gas, ammonia, or P95/P100 particulate cartridge as applicable. Use SCBA for emergencies.
Hand Protection	Wear compatible chemical-resistant gloves, e.g. nitrile, butyl, neoprene, PVC or laminate; select thickness/breakthrough time for the product and task.
Eye/Face Protection	Wear EN 166/ANSI Z87.1 chemical splash goggles; add face shield for splash, corrosive, dust, molten or pressure-transfer risk.
Body Protection	Wear chemical-resistant clothing/apron and safety footwear; use antistatic PPE where flammable vapours may occur.
Hygiene Measures	Provide eyewash and safety shower where appropriate. Wash after handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear colourless liquid
Odour	Sweet aromatic odour
Odour Threshold	Not established
pH	Not applicable unless supplied/used as an aqueous solution. For acids, alkalis, salts, surfactants and aqueous grades, verify pH from supplier COA/SDS before release.
Melting/Freezing Point	5.5 °C
Boiling Point / Range	80.1 °C
Flash Point	-11 °C
Auto-ignition Temperature	498 °C
Flammability Limits	LEL 1.2% v/v UEL 7.8% v/v
Vapour Pressure	75 mmHg at 20 °C
Vapour Density	2.7 (air = 1)
Relative Density	0.88 at 20 °C
Solubility in Water	Slightly soluble
Log Pow (Partition Coeff)	2.13
Evaporation Rate	Fast
Viscosity	Low viscosity liquid
VOC Content	100% VOC
Reactivity	Stable; highly flammable vapour-air mixture

**SECTION 10 STABILITY AND REACTIVITY**

Chemical Stability	Stable under recommended storage and handling conditions.
Conditions to Avoid	Avoid heat, ignition sources, contamination and incompatible materials.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides). Avoid contact with concentrated acids and halogens. Reactive with aluminium chloride (AlCl ₃) under elevated temperature — not a concern in ambient blending or storage.
Hazardous Decomposition	Carbon oxides and irritating or toxic fumes may be formed in fire.
Hazardous Reactions	No hazardous reactions under normal storage unless noted by product reactivity.
Possibility of Hazardous React.	Will not occur under normal conditions when stored and handled correctly.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	Known human carcinogen and mutagen; chronic exposure can damage blood-forming organs.
Acute Dermal Toxicity	Known human carcinogen and mutagen; chronic exposure can damage blood-forming organs.
Acute Inhalation Toxicity	Known human carcinogen and mutagen; chronic exposure can damage blood-forming organs.
Skin Irritation	Known human carcinogen and mutagen; chronic exposure can damage blood-forming organs.
Eye Irritation	Known human carcinogen and mutagen; chronic exposure can damage blood-forming organs.
Sensitisation	Endpoint-specific assessment: see Section 2 classification and Section 3 ingredients. Additional numeric endpoint data requires supplier/test confirmation.
Specific Target Organ (Single)	Endpoint-specific assessment: see Section 2 classification and Section 3 ingredients. Additional numeric endpoint data requires supplier/test confirmation.
Specific Target Organ (Repeat)	Repeated exposure target-organ classification is present in Section 2; use exposure controls and medical surveillance as required.
Reproductive Toxicity	Endpoint-specific assessment: see Section 2 classification and Section 3 ingredients. Additional numeric endpoint data requires supplier/test confirmation.
Aspiration Hazard	Aspiration hazard classification is present in Section 2 (H304). Do not induce vomiting after ingestion; aspiration into lungs may be fatal.
Carcinogenicity	Carc. 1A / H350: May cause cancer. Benzene is a known human carcinogen under harmonised/public classifications including IARC Group 1 and OSHA/NIOSH occupational references.
Mutagenicity	Muta. 1B / H340: May cause genetic defects. Section 11 is aligned with Section 2 classification and public regulatory classification sources.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity (Acute)	No aquatic classification identified in Section 2 from reviewed data. Numeric ecotoxicity was not universally verified; avoid release.
Aquatic Toxicity (Chronic)	No chronic aquatic classification identified in Section 2. Obtain supplier/ecotoxicity data if needed for registration or export.
Persistence / Degradability	Use supplier, ECHA or PubChem data where available. If not verified, do not assume ready biodegradability.
Bioaccumulation	Use verified log Kow/BCF data where available; UVCB/petroleum/surfactant materials need supplier formulation data.
Mobility in Soil	Assess from solubility, adsorption potential and product form. Prevent release to soil and groundwater.



Other Adverse Effects	Avoid uncontrolled release to the environment.
Environmental Regulations	Manage releases and waste under applicable local environmental regulations.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste from Product	Dispose of contents through an authorized waste contractor in accordance with local regulations.
Contaminated Packaging	Empty containers may retain residues; handle as hazardous until cleaned or disposed.
European Waste Code	Assign waste code according to actual process and local regulation.
Indian Regulations	Follow local hazardous waste and pollution control requirements.

SECTION 14 TRANSPORT INFORMATION

Parameter	UN / ADR (Road)	IMDG (Sea)	IATA (Air)	Notes
UN Number	UN 1114	UN 1114	UN 1114	Carcinogenic flammable liquid
Proper Shipping Name	BENZENE	BENZENE	BENZENE	
Class	3	3	3	Transport class
Packing Group	II	II	II	
Marine Pollutant	No	No	—	
Tunnel Restriction	D/E	—	—	ADR
EmS (Sea)	—	F-E, S-D	—	IMDG
Special Provisions	Follow applicable ADR requirements.	Follow applicable IMDG requirements.	Follow applicable IATA requirements.	Verify current carrier rules before shipment

Packaging: approved compatible container appropriate to the product. UN-certified drum required for international transport. Drum must be labelled with Class 3 placard, UN 1114, PG II, and product name.

SECTION 15 REGULATORY INFORMATION

EU / REACH	Observe REACH and CLP requirements where applicable.
EU CLP Regulation	Classified and labelled according to the product-specific GHS/CLP classification listed in Section 2.
EU Directive	Observe applicable workplace chemical, VOC and environmental requirements.
OSHA (USA)	Prepared in OSHA HCS/HazCom aligned 16-section SDS format.
India	Observe applicable Indian MSIHC, workplace, storage, transport, pollution-control and hazardous-waste requirements.
China (GB Standards)	Use applicable GB/T SDS and classification requirements where marketed.
Middle East / GCC	Observe applicable GHS-aligned local requirements.
TSCA (USA)	Verify TSCA inventory/SNUR status before US import or distribution; mixture/UVCB status may require supplier confirmation.
Australia (AICS)	Check inventory status before export or import.
Special Notes	No product-specific special note beyond the classification in Section 2.



Canada WHMIS / HPR	Classify/label under WHMIS 2015/HPR using Section 2 classification; Canadian sale may require bilingual SDS/label and ingredient disclosure.
Regulatory Scope Limitation	Final market placement requires confirmation of inventory status, local OELs, transport class, waste code and restrictions.

SECTION 16 OTHER INFORMATION

Full Text of H-Statements:

- 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

Prepared By	Supreme Petro Chemicals - Technical Department
SDS Standard	UN GHS Rev.11 (2025); OSHA HCS/HazCom; EU CLP/REACH Annex II; Canada WHMIS/HPR 16-section SDS format
Revision Date	22 May 2026
Version	1.0
Replaces Version	N/A - Initial Issue
Key Sources	SPC product page; original SPC SDS template; consolidated SDS audit CSV dated 27 May 2026; UN GHS Rev.11 Annex 4; OSHA HCS Appendix D; EU REACH Annex II/CLP; Canada WHMIS/HPR; PubChem, ECHA, NIOSH/OSHA, CAMEO and public supplier SDS/transport references where available. Accessed May 2026.
Audit Correction Note	Corrected from audit findings. Verification-required items need supplier formulation, test or regulatory data before market-specific release.

DISCLAIMER

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