

SAFETY DATA SHEET

STYRENE MONOMER

CAS No.: 100-42-5

This Safety Data Sheet is compiled from well-established published chemical, GHS classification and regulatory reference sources for this substance. It is supplied by Suraj Chemicals as the distributor/supplier of record and is not a manufacturer-issued document. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

Product Name	Styrene Monomer
CAS Number	100-42-5
Recommended Use	Industrial / commercial chemical trading and distribution
Supplier	Suraj Chemicals, No 92, Govindappa Naicken Street, Shiva Complex, Chennai - 600001, India
Emergency Telephone	+91 - 9840284032, 9176135357 / +91 - 44 - 25393652

2. HAZARD(S) IDENTIFICATION

GHS Signal Word	Danger
HAZARD CLASSIFICATION - Flammable liquid - Category 3 - Acute toxicity, inhalation - Category 4 - Skin irritation - Category 2 - Serious eye irritation - Category 2A - Specific target organ toxicity, single exposure - Category 3 (respiratory irritation, narcotic effects) - Specific target organ toxicity, repeated exposure - Category 1 (hearing organs) - Carcinogenicity - Category 2 - Chronic aquatic toxicity - Category 3	
HAZARD STATEMENTS - H226 - Flammable liquid and vapour - H315 - Causes skin irritation - H319 - Causes serious eye irritation - H332 - Harmful if inhaled - H335 - May cause respiratory irritation - H351 - Suspected of causing cancer - H372 - Causes damage to organs (hearing) through prolonged or repeated exposure	
PRECAUTIONARY STATEMENTS - P201 - Obtain special instructions before use - P210 - Keep away from heat, sparks, open flames and hot surfaces; no smoking - P260 - Do not breathe vapours - P264 - Wash exposed skin thoroughly after handling - P271 - Use only outdoors or in a well-ventilated area - P280 - Wear protective gloves/eye protection/face protection - P302+P352 - IF ON SKIN: wash with plenty of water - P305+P351+P338 - IF IN EYES: rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing - P308+P313 - IF exposed or concerned: get medical advice/attention - P403+P233 - Store in a well-ventilated place; keep container tightly closed	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Styrene Monomer
CAS Number	100-42-5
Physical State	Liquid
Appearance / Odour	Colorless to yellowish oily liquid with a sweet, penetrating aromatic odor.

4. FIRST-AID MEASURES

Eye Contact	Rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing and seek medical attention if irritation persists.
Skin Contact	Wash off with plenty of water and soap; remove contaminated clothing; seek medical attention if irritation persists.
Inhalation	Remove to fresh air and keep at rest in a position comfortable for breathing; seek medical attention if symptoms occur.
Ingestion	Rinse mouth; do NOT induce vomiting due to aspiration risk; seek immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, carbon dioxide, alcohol-resistant foam, or water spray/fog to cool exposed containers.
Unsuitable Extinguishing Media	Avoid a straight/high-pressure water stream, which can spread the fire.
Special Hazards	Flammable vapor-air mixtures can form; uninhibited or heat-exposed styrene can undergo hazardous exothermic self-polymerization, especially if the polymerization inhibitor is depleted or headspace oxygen is lost, potentially causing container rupture; combustion produces carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Measures	Eliminate ignition sources, ventilate the area, contain the spill with inert absorbent, prevent entry into drains/waterways, avoid inhalation and skin contact, and collect residues in vented containers due to polymerization risk.
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7. HANDLING AND STORAGE

Handling Precautions	Use with adequate ventilation or local exhaust, keep away from heat/sparks/open flame and oxidizers, use grounded/bonded equipment, avoid prolonged skin/eye contact and inhalation, and ensure the product remains properly inhibited with adequate oxygen headspace to prevent hazardous polymerization.
Storage Conditions	Store in a cool, well-ventilated, flammables-rated area away from direct sunlight, heat and oxidizers; monitor inhibitor content and headspace oxygen per supplier guidance; avoid prolonged storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / PPE	OSHA PEL ~100 ppm TWA / ACGIH TLV ~20 ppm TWA; use chemical-resistant gloves (e.g., Viton, nitrile with limited breakthrough time), chemical splash goggles, and a NIOSH-approved organic vapor respirator with explosion-proof local exhaust ventilation where vapor exceeds exposure limits; use hearing conservation measures given repeated-exposure ototoxicity classification.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance / Odour	Colorless to yellowish oily liquid with a sweet, penetrating aromatic odor.
Boiling Point	~145-146 C
Melting Point	~-31 C
Flash Point	~31-32 C (closed cup)
Density / Specific Gravity	~0.906 g/cm ³ at 20 C
Water Solubility	Slightly soluble, ~0.3 g/L at 20 C
pH Value	Not applicable (non-aqueous, essentially neutral organic liquid)

10. STABILITY AND REACTIVITY

Stability	Stable when properly inhibited and stored per specification; exposure to heat, light, peroxide contamination or loss of inhibitor/oxygen can trigger hazardous exothermic polymerization.
Incompatible Materials	Strong oxidizers, peroxides, polymerization initiators/catalysts, and strong acids.
Hazardous Decomposition	Carbon monoxide and carbon dioxide on combustion; uncontrolled polymerization releases significant heat.

11. TOXICOLOGICAL INFORMATION

Summary	Harmful if inhaled, causing respiratory tract, skin and eye irritation; narcotic effects (headache, dizziness, fatigue) at elevated vapor concentrations; suspected human carcinogen based on animal and epidemiological evidence (IARC Group 2A/2B classifications have applied at various times); prolonged or repeated exposure is associated with hearing (ototoxic) damage; not classified as a reproductive toxicant based on current data.
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12. ECOLOGICAL INFORMATION

Summary	Harmful to aquatic life with long-lasting effects in some classifications; low water solubility; moderately biodegradable; should be prevented from entering waterways.
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13. DISPOSAL CONSIDERATIONS

Disposal Method	Dispose of as hazardous waste through a licensed waste management/incineration facility in accordance with local regulations; avoid sealed-container storage of waste due to polymerization risk.
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14. TRANSPORT INFORMATION

UN Number	UN2055
Transport Hazard Class	Class 3 (Flammable liquid)
Packing Group	III

15. REGULATORY INFORMATION

Notes	Key monomer for polystyrene and other plastics/resins; classified as a suspected carcinogen with reproductive-organ and respiratory hazards under GHS, OSHA HCS and EU CLP; regulated for transport under IMDG/ADR/IATA as UN2055 'Styrene monomer, stabilized', Class 3, Packing Group III; shipments require verified inhibitor content.
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16. OTHER INFORMATION

Prepared By	Suraj Chemicals, Technical / QA Desk
Date of Issue	29 Sep 2026
Note	This SDS is compiled from well-established published GHS hazard classification data and general chemical reference sources for this substance, in the standard 16-section format. Values are believed accurate but Suraj Chemicals makes no warranty, express or implied, regarding their completeness. Users should evaluate suitability for their own specific use.

(This document is computer generated and therefore does not require any signature.)

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