



SAMRAT POLY RESINS

Manufacturer of Coating & Composite Resins · Doraha, Ludhiana, Punjab, India

SAFETY DATA SHEET

Doc. Ref: SPR-SDS-FRR · Rev. 01 · Issue Date: 8 August 2026

FIRE RETARDANT RESIN

Halogenated Fire-Retardant Unsaturated Polyester Resin · Low Smoke Emission

Fire Retardant Resin is an unsaturated polyester resin solution in styrene monomer, modified with a halogenated fire-retardant additive package, for fire-retardant FRP laminates, composite moulding, industrial composite components, panels, structural and decorative FRP articles, transportation/building composite applications where improved flame-retardant performance is required, and other manufacturer-approved applications. It is supplied uncatalyzed and is intended for industrial and professional use only.

CURED FIRE PERFORMANCE ≠ UNCURED LIQUID HAZARD

Fire-retardant performance (including the UL 94 V0 rating and reduced smoke/toxic gas emission referenced on the product TDS) applies to the properly cured resin/composite system, not to this product as supplied. The uncured liquid resin contains styrene and remains a flammable liquid — it must be handled, stored, and transported according to the hazard classification in this SDS regardless of the cured product's fire performance.

The manufacturer's TDS marks the UL 94 V0 rating with a footnote: it is 'as published by the manufacturer,' with the underlying test report/certification 'to be supplied on request and confirmed in the next revision.' This SDS does not independently verify that rating.

Not for use in food-contact, medical, pharmaceutical, or other applications not specifically approved by the manufacturer.

SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Name	Fire Retardant Resin
Abbreviation	FR Resin
Product Type	Fire-retardant unsaturated polyester resin solution
Chemical Family	Fire-retardant unsaturated polyester resin in styrene monomer
Product Code / Internal Reference	FRR
SDS Document Reference	SPR-SDS-FRR, Rev. 01

1.2 Relevant Identified Uses and Uses Advised Against

- Recommended use: Fire-retardant FRP laminates, composite moulding, industrial composite components, panels, structural and decorative FRP articles, and transportation/building composite applications where improved flame-retardant performance is required — including automotive and railway components, marine and electrical applications, FRP panels and building components, and tunnels/infrastructure/fire-sensitive environments. For industrial/professional use only.
- Uses advised against: Food-contact, medical, pharmaceutical, or other applications not specifically approved by the manufacturer; use as supplied without the correct catalyst (MEKP) and accelerator dosage; any use not confirmed with Samrat Poly Resins technical staff. Do not rely on this product's fire-retardant properties for any application with a specific regulatory or certification requirement (e.g. UL 94, EN 45545, BS 476) without obtaining the actual test report/certificate from the manufacturer first — see the note below.

1.3 Details of the Supplier of the Safety Data Sheet

Company Name	Samrat Poly Resins
Registered Activity	Manufacturer of Coating & Composite Resins (ISO 9001:2015 certified)
Address	Oswal Road, Near GT Road, Doraha, Ludhiana — 141421, Punjab, India
GST No.	03ALBPS3446G1ZB
Website	samratpolyresins.in
Email	info@samratpolyresins.in

1.4 Emergency Telephone Number

Company Emergency Contact	+91 74638 81652
National Poison Information Centre (India)	1800-116-117 (Toll-Free, 24x7) — National Poisons Information Centre, AIIMS New Delhi

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the Substance or Mixture (GHS)

Hazard Class	Category	H-Statement
Flammable liquids	Category 3	H226 — Flammable liquid and vapour
Acute toxicity — inhalation	Category 4	H332 — Harmful if inhaled
Skin irritation	Category 2	H315 — Causes skin irritation
Eye irritation	Category 2	H319 — Causes serious eye irritation
Specific target organ toxicity — single exposure	Category 3 (respiratory tract irritation)	H335 — May cause respiratory irritation
Specific target organ toxicity — repeated exposure	Category 1	H372 — Causes damage to organs through prolonged or repeated exposure
Reproductive toxicity	Category 2	H361d — Suspected of damaging the unborn child
Aspiration hazard	Category 1	H304 — May be fatal if swallowed and enters airways
Hazardous to the aquatic environment — chronic	Category 3	H412 — Harmful to aquatic life with long-lasting effects

This classification reflects the styrene-driven hazard pattern shared across this company's resin family. The halogenated fire-retardant additive's own independent hazard contribution is not established — its exact identity and concentration are not disclosed in the manufacturer's TDS — so no additional classification is assigned to it beyond what is captured here. This is NOT a UL 94, EN 45545, or other fire-performance rating — those describe the cured composite's burning behaviour, not the GHS hazard classification of the liquid as supplied.

2.2 Label Elements

Signal Word	DANGER
Pictograms	GHS02 (Flame), GHS07 (Exclamation Mark), GHS08 (Health Hazard)
Hazard Statements	H226, H304, H315, H319, H332, H335, H361d, H372, H412
Precautionary Statements — Prevention	P210, P233, P240, P241, P242, P243, P261, P264, P271, P280

Precautionary Statements — Response	P303+P361+P353, P304+P340, P305+P351+P338, P312, P321, P332+P313, P337+P313, P370+P378
Precautionary Statements — Storage	P403+P235, P405
Precautionary Statements — Disposal	P501

2.3 Other Hazards

- Vapours may form flammable/explosive mixtures with air. Vapour is heavier than air and can travel along floors/low points to a source of ignition and flash back.
- The recommended storage temperature (30–35°C, per TDS) is close to the flash point carried over from related GP resin/styrene chemistry (31–34°C, see Section 9 for basis and caveats — the manufacturer's TDS explicitly does not provide a confirmed value for this specific formulation) — storage and handling areas should be treated as flammable-liquid environments at all times; see Section 7.
- Uncatalyzed resin can undergo hazardous, self-accelerating exothermic polymerization if contaminated with peroxides (including MEKP hardener), strong oxidizers, or exposed to excessive heat — this can lead to container rupture or fire, independent of any external ignition source.
- This product is supplied uncatalysed. Organic peroxide catalyst/MEKP, where used, is a separate chemical product and must be handled in accordance with its own Safety Data Sheet.
- Mechanical processing (sanding, cutting, grinding, machining) of cured composite made with this resin may generate respirable particulate dust — see Section 8.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Fire Retardant Resin is a mixture. It is supplied as a single-pack, uncatalyzed resin; MEKP hardener and cobalt accelerator are recommended processing/addition rates applied separately by the customer at the point of use and are not ingredients of the supplied product — they are outside the scope of this SDS.

Component	CAS No.	EC No.	Concentration (% w/w)	Classification / Hazard Role
Unsaturated polyester resin / polyester oligomer	Not assigned / polymer of variable composition	Not applicable	Balance to 100% after confirmed styrene content (35%) and the fire-retardant additive and inhibitor packages (each individually undisclosed)	Principal resin/binder component. Not separately classified as the main hazard driver in this mixture.
Styrene monomer	100-42-5	202-851-5	35%	Flam. Liq. 3 (H226); Acute Tox. 4 (H332); Skin Irrit. 2 (H315); Eye Irrit. 2 (H319); STOT SE 3 (H335); STOT RE 1 (H372); Repr. 2 (H361d); Asp. Tox. 1 (H304); Aquatic Chronic 3 (H412). Reactive diluent and principal volatile component contributing to flammability, inhalation, irritation, aspiration, reproductive, repeated-exposure, and environmental hazards.
Fire-retardant additive package (halogenated)	Proprietary / not disclosed	Proprietary / not disclosed	Proprietary, manufacturer-controlled concentration (not stated in the TDS)	Provides the intended fire-retardant performance of the cured composite system. The TDS confirms the additive class as 'halogenated fire-retardant formulation' but does not disclose the specific compound, exact identity, or concentration — treated as proprietary. Not independently classified beyond this description.
Polymerisation inhibitor / stabiliser package	Proprietary / not disclosed	Proprietary / not disclosed	<0.1% (not separately stated in the TDS)	Controls premature polymerisation during storage.

Component	CAS No.	EC No.	Concentration (% w/w)	Classification / Hazard Role
				Identity and exact concentration are retained as proprietary manufacturer information.

SECTION 4: FIRST-AID MEASURES

4.1 Description of First-Aid Measures

Eye Contact	Rinse cautiously with clean water for several minutes. Remove contact lenses if present and easy to do — continue rinsing. Obtain medical attention where required.
Skin Contact	Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention if irritation, redness, or a burning sensation develops.
Inhalation	Move the affected person to fresh air. Keep at rest in a position comfortable for breathing. Obtain medical attention where symptoms persist or exposure is significant.
Ingestion	Do not induce vomiting — risk of aspiration into the lungs (chemical pneumonitis). Rinse mouth with water if the person is conscious. Obtain immediate medical attention. Never give anything by mouth to an unconscious person.

4.2 Most Important Symptoms and Effects, Acute and Delayed

- Eye/skin: redness, irritation, itching; prolonged or repeated contact may cause drying or cracking of skin.
- Inhalation (at elevated vapour concentrations): headache, dizziness, drowsiness, nausea, and irritation of the nose and throat; high concentrations may cause central nervous system depression / narcosis. Repeated exposure may affect hearing and the nervous system.
- Ingestion/aspiration: risk of chemical pneumonitis if aspirated into the lungs during swallowing or vomiting.

4.3 Notes to Physician

Treat symptomatically. There is no specific antidote. Aspiration of this material during ingestion or vomiting can cause chemical pneumonitis, which may be fatal — treating physicians should be made aware of this risk. Do not induce vomiting.

SECTION 5: FIRE-FIGHTING MEASURES

UNCURED LIQUID MAY BURN

Fire-retardant performance relates to the properly cured resin/composite system. The uncured liquid resin, as supplied, contains styrene and may burn — it must not be treated as non-combustible.

5.1 Extinguishing Media

- Suitable: Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water spray/fog (for cooling containers).
- Not suitable: Avoid a direct high-pressure water jet, which may spread burning material.

5.2 Special Hazards Arising from the Substance or Mixture

- Vapours may form flammable mixtures with air and may travel to ignition sources.
- Heated containers may rupture. Uncontrolled polymerisation may release heat, potentially leading to violent rupture of closed containers/drums.
- Fire/decomposition may produce carbon monoxide, carbon dioxide, irritating fumes, and styrene vapour. Because the fire-retardant additive package is confirmed as a halogenated formulation, combustion or thermal decomposition may also release hydrogen halide gases — the specific halogen is not disclosed in the manufacturer's TDS, so this is noted generically based on the confirmed additive class, not a specific tested combustion profile.

5.3 Advice for Fire-Fighters

- Evacuate the area and fight fire from a safe, protected distance where possible.
- Wear suitable protective equipment and self-contained breathing apparatus (SCBA), particularly given the potential for irritating/corrosive halogen-containing combustion products.
- Cool fire-exposed closed containers/drums with water spray from a safe distance to prevent pressure build-up and rupture.
- Contain fire-fighting water run-off; prevent it from entering drains, watercourses, or soil.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- Eliminate ignition sources. Restrict unnecessary access to the spill area.
- Ventilate the area, especially low-lying and enclosed spaces where vapour can accumulate. Use non-sparking tools.
- Wear appropriate PPE as described in Section 8 before attempting clean-up.

6.2 Environmental Precautions

- Prevent entry into drains, sewers, watercourses, or soil. Dike/bund the spill if it is safe to do so.
- Notify the relevant Pollution Control Board and site EHS personnel for any spill that reaches, or is likely to reach, a drain or waterway.

6.3 Methods and Material for Containment and Cleaning Up

- Absorb using an inert, non-combustible material such as sand, earth, or vermiculite. Transfer to suitable, labelled waste containers.
- This product's higher viscosity relative to unfilled general-purpose resins (see Section 9) may slow spreading but also slow absorption — allow extra time and material for clean-up. This does not indicate a dust hazard for the liquid product.
- Do not allow contaminated absorbent to accumulate in a confined pile — bulk resin-soaked absorbent can self-heat and undergo exothermic polymerization.
- Dispose through authorised waste handlers — see Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling

- Provide adequate ventilation. Avoid breathing vapours/mist.
- Avoid skin/eye contact. Keep away from heat, flames, and sunlight. No smoking.
- Ground/bond transfer systems; prevent static discharge; use non-sparking equipment, particularly for bulk transfer.
- Keep away from organic peroxide catalysts/MEKP except during controlled curing. Keep away from incompatible accelerators, reducing agents, acids, bases, amines, and contamination. Never return catalyzed/mixed material to the bulk container.
- Keep container tightly closed. Use the PPE specified in Section 8.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

FLAMMABLE LIQUID STORAGE — MANDATORY CONTROLS

The recommended storage temperature (30–35°C, per TDS) is close to the flash point carried over from related GP resin/styrene chemistry (31–34°C) — the manufacturer's TDS explicitly marks flash point as 'Not Provided, pending confirmation, no value estimated or assumed' for this specific formulation. Storage and handling areas should be treated as flammable-liquid environments at all times as a precaution:

Cool, dry, well-ventilated storage · No open flames · No smoking · No sparks · Explosion-protected equipment where required · Proper grounding/bonding · Avoid direct sunlight and heat accumulation · Keep containers tightly closed · Keep away from oxidising agents, organic peroxides/MEKP (except during controlled curing), and incompatible accelerators, reducing agents, acids, bases, and amines.

Storage Temperature

30–35°C, per manufacturer TDS. Avoid direct sunlight and localized heat

sources; excessive temperature shortens shelf life and increases self-polymerization risk.

Shelf Life	3 months from date of manufacture, under recommended storage conditions, per manufacturer TDS.
Storage Area	Cool, dry, well-ventilated area, away from direct sunlight and ignition sources. Bund/contain to capture leaks. Store as a flammable liquid (Category 3) in accordance with MSIHC 1989 (see Section 15).
Incompatible Materials	Peroxides and other free-radical initiators (incl. MEKP), strong oxidizing agents, strong acids and bases, amines, reducing agents — keep segregated unless intentionally used under controlled processing conditions.
Packaging Material	35 kg or 225 kg drum/pail as supplied, per manufacturer TDS. Keep containers tightly closed when not in use.

7.3 Specific End Use(s)

Manufacture of fire-retardant FRP composite products via hand lay-up, spray-up, and moulding processes; panels and structural/decorative FRP articles. Refer to the product TDS (SPR-TDS-FRR) for recommended MEKP/cobalt octoate dosage, gel time (approx. 5.5 minutes), and processing parameters. Fire performance (UL 94 V0, low-smoke/toxic-gas emission) applies to the properly cured composite; obtain the actual test report/certificate from the manufacturer before relying on this rating for any regulated application.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters — Occupational Exposure Limits (Styrene, the major volatile component)

Source	TWA	STEL / Ceiling	Basis
ACGIH (USA)	TLV-TWA 10 ppm	TLV-STEL 20 ppm	Threshold Limit Value; Ototoxicant and A3 notations
NIOSH REL (USA)	50 ppm (215 mg/m ³)	ST 100 ppm (425 mg/m ³)	Recommended Exposure Limit
OSHA PEL (USA)	100 ppm	Ceiling 200 ppm / Peak 600 ppm	29 CFR 1910.1000 Table Z-2
India — Factories Act 1948, Second Schedule	50 ppm (215 mg/m ³)	STEL 100 ppm (425 mg/m ³)	Statutory limit under §41-F

DOWNSTREAM PROCESSING — DUST FROM CURED COMPOSITE

Mechanical processing of cured composites made with this resin (sanding, cutting, grinding, machining, or finishing) may generate respirable particulate dust. Use suitable local extraction and respiratory protection based on the composition of the cured system and applicable workplace exposure requirements. Crystalline silica is NOT confirmed present in this product and is not named here; if the cured system's actual filler content includes silica, that must be confirmed separately and controlled under the applicable silica exposure limit.

8.2 Exposure Controls

- Engineering controls: Local exhaust ventilation and general ventilation at resin-handling, mixing, and bulk-transfer stations. Ensure general workplace ventilation keeps vapour concentrations below the applicable OEL.
- Eye/face protection: Chemical splash goggles; face protection where needed.
- Hand protection: Chemically resistant gloves suited to styrene/polyester resin systems.
- Body protection: Protective clothing.
- Respiratory protection: Appropriate organic-vapour respiratory protection where ventilation is inadequate and required.
- General hygiene: Do not eat, drink, or smoke while handling. Wash hands and exposed skin thoroughly after handling and before breaks. Eyewash and safety shower should be readily accessible.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White liquid, per manufacturer TDS
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Odour	Characteristic sweet/aromatic styrene-like odour
Odour Threshold	0.04–0.32 ppm, based on styrene component data
pH	Not applicable — non-aqueous organic resin solution
Melting / Freezing Point	Not applicable to mixture; styrene component freezing point approx. -31°C
Initial Boiling Point / Range	Approx. 145°C, based on styrene principal volatile component
Flash Point	31–34°C, carried over from related GP resin/styrene chemistry (closed-cup) — NOT independently tested for Fire Retardant Resin. The manufacturer's TDS lists this field as 'Not Provided,' pending confirmation with technical staff, and specifies no value is to be estimated or assumed; treat with additional caution given this product's different formulation (halogenated fire-retardant additive package, different viscosity) until product-specific testing confirms it
Evaporation Rate	Approx. 0.5 (n-butyl acetate = 1), based on styrene component / comparable resin-solution data
Flammability	Flammable liquid and vapour — see cured/uncured distinction on page 1 and in Section 5
Lower Explosive Limit	Approx. 1.1% v/v, based on styrene component data
Upper Explosive Limit	Approx. 6.1–7.0% v/v, based on styrene component data
Vapour Pressure	Approx. 4.5–6.4 mmHg at 20°C, based on styrene / comparable resin-solution data
Vapour Density (air = 1)	Approx. 3.6, based on styrene component data
Relative Density / Specific Gravity	Manufacturer TDS lists this field as 'Not Provided,' pending confirmation, with no value to be estimated or assumed. For reference only, typical halogenated fire-retardant/filled unsaturated polyester resin systems range approx. 1.10–1.30 g/cm ³ (higher than unfilled GP resin due to the fire-retardant additive package) — NOT a confirmed value for this product
Solubility in Water	Insoluble / very slightly soluble
Solubility in Organic Solvents	Soluble / miscible in compatible organic solvents and styrene
Partition Coefficient (log K_{ow})	Approx. 2.96, based on styrene component data
Auto-Ignition Temperature	Approx. 490°C, based on styrene component data
Decomposition Temperature	Not established. Hazardous decomposition or uncontrolled polymerisation may occur under excessive heat, fire, contamination, or incompatible conditions; decomposition characteristics of the undisclosed fire-retardant additive package are not established
Viscosity	400 cPs, per manufacturer TDS
VOC Content	Approx. 35% w/w, based on the confirmed styrene content of the uncured product
Explosive Properties	Not classified as explosive; hazardous exothermic polymerization possible under contamination/heat — see Section 10
Oxidizing Properties	Not classified as oxidizing

Fire-performance properties (UL 94 V0 rating, smoke density, toxic gas emission reduction) described in the manufacturer's TDS relate to the cured composite and are not physical/chemical properties of the liquid resin as supplied — they are not repeated in this table. See the note on page 1 regarding the unverified status of the UL 94 V0 rating.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Not reactive under normal handling and storage conditions when kept away from peroxides, strong oxidizers, and excess heat. Can undergo hazardous, self-accelerating exothermic polymerization if contaminated or overheated.

10.2 Chemical Stability

Stable under recommended storage and handling conditions. Uncontrolled polymerisation may occur under excessive heat or contamination.

10.3 Possibility of Hazardous Reactions

Hazardous polymerization can occur if the resin is contaminated with peroxides (including MEKP hardener), strong oxidizing agents, or exposed to excessive heat without adequate inhibitor protection. This reaction is exothermic and, in a confined or bulk quantity, can self-accelerate to the point of container rupture or fire.

10.4 Conditions to Avoid

- Heat, flames, direct sunlight, and other ignition sources.
- Prolonged storage above the recommended storage temperature.
- Oxidising agents, organic peroxides (outside controlled curing), incompatible accelerators, reducing agents, acids, bases, amines, and contamination.

10.5 Incompatible Materials

Peroxides and other free-radical initiators, strong oxidizing agents, strong acids and bases, amines, reducing agents, and metal driers/accelerators other than those intentionally formulated into the cure system.

10.6 Hazardous Decomposition Products

Under fire, hazardous decomposition may generate carbon monoxide, carbon dioxide, styrene vapour, and irritating fumes. Because the fire-retardant additive is confirmed as halogenated, decomposition products may also include hydrogen halide gases — the specific halogen is not disclosed and this is a generic caution based on the confirmed additive class, not a tested decomposition profile for this specific product.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information is based primarily on the styrene component, as no whole-product toxicological testing data was provided in the manufacturer's TDS. The fire-retardant additive package's own toxicology is not established, as its specific identity is not disclosed.

11.1 Information on Toxicological Effects

Acute Toxicity — Oral (rat)	LD50 approx. 2,650 mg/kg, based on styrene component data
Acute Toxicity — Inhalation (rat, 4h)	Harmful by inhalation; LC50 approx. 12,000 ppm, based on styrene component data
Skin Corrosion / Irritation	Causes skin irritation, based on styrene component data
Serious Eye Damage / Irritation	Causes serious eye irritation; may cause lachrymation at elevated vapour concentrations, based on styrene component data
Respiratory / Skin Sensitisation	No sensitisation classification identified for the styrene component or in comparable resin systems reviewed. Not established for the undisclosed fire-retardant additive.
Germ Cell Mutagenicity	Styrene mutagenicity data is mixed/inconclusive in published sources; no mutagenicity classification applied
Carcinogenicity	Styrene is classified by IARC as Group 2B (possibly carcinogenic to humans) and by ACGIH as A3 (confirmed animal carcinogen, unknown relevance to humans)

Reproductive Toxicity	Suspected reproductive toxicity — Category 2 (H361d, suspected of damaging the unborn child), based on styrene component classification
STOT — Single Exposure	May cause respiratory tract irritation and CNS effects — headache, dizziness, drowsiness, nausea — at elevated vapour concentrations
STOT — Repeated Exposure	May cause damage to organs (central nervous system, hearing, upper respiratory tract) through prolonged or repeated exposure, based on styrene component data
Aspiration Hazard	May be fatal if swallowed and enters airways (risk of chemical pneumonitis), based on styrene component data

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Fish	LC50 (96h) approx. 25–65 mg/L, based on styrene component data
Aquatic Invertebrates	EC50 (48h) approx. 23 mg/L, based on styrene component data
General	Harmful to aquatic life with long-lasting effects, depending on exposure and concentration. Prevent release into drains, soil, groundwater, or surface water. Styrene is the principal established environmental concern in this mixture.

12.2 Persistence and Degradability

The product, as a complete uncured resin mixture, is not expected to be readily biodegradable. The cured (fully polymerized) resin is expected to be inert and largely insoluble. The fire-retardant additive's own environmental profile is not established — its identity is not disclosed, and no assumption of ATH, antimony, brominated, chlorinated, or phosphorus-related environmental hazard is made without supporting data.

12.3–12.6 Bioaccumulative Potential, Mobility, Other Adverse Effects

A formal PBT/vPvB assessment has not been performed for the mixture. Do not release to the environment; see Section 6.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

- Dispose through authorised industrial/hazardous waste handlers. Do not discharge uncured material into drains, soil, or waterways.
- Handle uncured/off-spec resin and resin-contaminated absorbent as hazardous chemical waste, in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (India) and applicable State Pollution Control Board requirements.
- Fully cured composite scrap is generally treated as inert solid waste; confirm current requirements with the relevant State Pollution Control Board, noting the fire-retardant additive's identity is not established for waste-classification purposes.
- Empty containers may contain hazardous residue/vapour. Handle contaminated packaging appropriately — do not cut, weld, drill, or apply heat to empty containers. Dispose as hazardous waste unless certified as cleaned, or return to an authorised drum-reconditioner.
- Follow all applicable local, state, and national regulations for disposal.

SECTION 14: TRANSPORT INFORMATION

UN Number	UN 1866
UN Proper Shipping Name	RESIN SOLUTION, flammable
Transport Hazard Class(es)	Class 3 — Flammable liquid
Packing Group	III

Environmental Hazards / Marine Pollutant	Not expected to be classified as a marine pollutant based on available component data
Special Precautions for User	Keep away from heat, sparks, flames, oxidisers, organic peroxides, and ignition sources. Transport in tightly closed, approved containers, upright and secured against movement.
Transport in Bulk (Annex II MARPOL/IBC Code)	Not applicable — product transported in 35 kg / 225 kg drums/pails, not in bulk
India — Road Transport	Subject to the Central Motor Vehicles Rules, 1989 (Class 3, Flammable Liquid)

This is a resin-solution transport classification (UN 1866, Class 3), unrelated to the organic peroxide (Class 5.2) classification that applies to MEKP hardener, which is a separate product with its own SDS. As with all dangerous goods shipments, the shipper is responsible for verifying classification, packaging, marking, and documentation against the dangerous-goods regulations current at the time and mode of each shipment.

SECTION 15: REGULATORY INFORMATION

15.1 India

- Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (MSIHC), under the Environment (Protection) Act, 1986 — this product falls into the Rules' 'highly flammable liquid' band (flash point $\leq 60^{\circ}\text{C}$ but $> 23^{\circ}\text{C}$). Schedule 1–3 applicability depends on quantities held on site.
- Occupational exposure limits for styrene under the Factories Act 1948, Second Schedule (§41-F) — see Section 8.
- ACGIH reference exposure limits — see Section 8.
- Factories Act, 1948 and applicable State Factory Rules — workplace exposure limits, storage, and safety provisions for hazardous substances, including flammable-liquid handling and storage requirements.
- Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 — governs disposal (see Section 13).
- India has not formally adopted the GHS for workplace chemical classification; this 16-section GHS-format SDS in English follows generally accepted practice.
- This SDS makes no claim that this product carries any statutory fire-performance approval or certification. The UL 94 V0 rating referenced on the manufacturer's TDS is explicitly marked by the manufacturer as pending test-report/certification confirmation — obtain that documentation directly from Samrat Poly Resins before relying on it for any regulated application.
- Users must comply with all applicable local, state, national, and transport regulations.

15.2 International Reference (where this product or its components may be exported/shipped)

- Styrene (CAS 100-42-5) is an actively listed substance on the US TSCA Inventory and is registered under EU REACH; it carries a harmonised CLP classification broadly consistent with Section 2 of this SDS.
- For US shipments: OSHA Hazard Communication Standard, 29 CFR 1910.1200, applies to labelling and SDS format.
- For EU shipments: Regulation (EC) No. 1272/2008 (CLP) and Regulation (EC) No. 1907/2006 (REACH) apply.

SECTION 16: OTHER INFORMATION

Full Text of Hazard (H) and Precautionary (P) Statements Referenced in Sections 2 and 3

- H226 — Flammable liquid and vapour
- H304 — May be fatal if swallowed and enters airways
- H315 — Causes skin irritation
- H319 — Causes serious eye irritation
- H332 — Harmful if inhaled
- H335 — May cause respiratory irritation
- H361d — Suspected of damaging the unborn child
- H372 — Causes damage to organs through prolonged or repeated exposure
- H412 — Harmful to aquatic life with long-lasting effects

Abbreviations

ACGIH = American Conference of Governmental Industrial Hygienists · CAS = Chemical Abstracts Service · CLP = Classification, Labelling and Packaging Regulation (EU) · FR = Fire-Retardant · GHS = Globally Harmonized System of Classification and Labelling of Chemicals · IARC = International Agency for Research on Cancer · LC50/LD50 = Lethal Concentration/Dose, 50% · MSIHC = Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 · NIOSH = National Institute for Occupational Safety and Health · OEL = Occupational Exposure Limit · OSHA = Occupational Safety and Health Administration · PEL = Permissible Exposure Limit · REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals · REL = Recommended Exposure Limit · SDS = Safety Data Sheet · STEL = Short-Term Exposure Limit · STOT RE/SE = Specific Target Organ Toxicity, Repeated/Single Exposure · TLV = Threshold Limit Value · TWA = Time-Weighted Average · UL 94 = Underwriters Laboratories flammability standard for plastics · UPR = Unsaturated Polyester Resin.

Revision Information

SDS Version / Revision No.	01
Issue Date	8 August 2026
Prepared By	Samrat Poly Resins / Regulatory Department
Reason for Issue	Initial official issue

This SDS has been prepared based on available technical data, manufacturer/chemist-reviewed product information, component hazard data, and applicable safety references. The information is provided for safe handling, storage, transport, use, and disposal of the product. Values shown are typical for this resin system and are believed accurate; users are responsible for confirming suitability for their specific application and for compliance with current regulations at the time of use.