



SAMRAT POLY RESINS

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

SAFETY DATA SHEET

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

ISO FIRE RETARDANT RESIN

Halogen-Free, ATH-Filled Isophthalic Polyester Resin · Fire-Safety Applications

ISO Fire Retardant Resin is an isophthalic unsaturated polyester resin solution in styrene monomer, filled with aluminium trihydrate (ATH) as a halogen-free fire-retardant additive. It bonds well with fibreglass mats and is used for fire-retardant FRP laminates, moulded composite products, corrosion-resistant composite structures, industrial FRP components, panels, tanks, covers, enclosures, structural/decorative composite parts, and other manufacturer-approved applications requiring the combination of isophthalic resin performance and improved fire-retardant properties. 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 referenced in the product's technical literature) 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 UL 94 V0 rating is stated in the manufacturer's product literature but is explicitly outside the chemist-verified technical properties table on the TDS (which covers physical/processing specifications only). This SDS does not independently verify that rating — obtain the actual test report/certificate from the manufacturer before relying on it for any regulated application.

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

1.2 Relevant Identified Uses and Uses Advised Against

- Recommended use: Fire-retardant FRP laminates, moulded composite products, corrosion-resistant composite structures, industrial FRP components, panels, tanks, covers, enclosures, and structural/decorative composite parts — including railway and marine applications, automotive fire-rated components, FRP panels requiring fire compliance, and electrical enclosures, tunnels, and construction. 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.

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 styrene-containing resin family; the isophthalic (vs. orthophthalic) resin backbone does not materially change this pattern. Aluminium trihydrate (ATH), the confirmed fire-retardant filler, is not independently classified as hazardous under GHS in most published reference data and does not add classifications beyond those listed. This is NOT a UL 94 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) overlaps the confirmed flash point (34°C, closed cup, per TDS) — storage and handling areas must 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

ISO 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
Isophthalic unsaturated polyester resin / polyester oligomer	Not assigned / polymer of variable composition	Not applicable	Balance to 100% after confirmed styrene content (35%) and the ATH and inhibitor packages (exact ATH loading not stated in the TDS)	Principal isophthalic polyester 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.
Aluminium trihydrate (ATH) / aluminium hydroxide	21645-51-2	Not disclosed	Proprietary, manufacturer-controlled concentration (exact loading not stated in the TDS)	Confirmed halogen-free fire-retardant filler (per manufacturer TDS). Not independently classified as hazardous under GHS in most published reference data. Functions by endothermic thermal decomposition, releasing water vapour and absorbing heat, which helps suppress flame spread in the cured composite — this mechanism does not reduce the flammability of the

Component	CAS No.	EC No.	Concentration (% w/w)	Classification / Hazard Role
				uncured liquid resin, which is governed by its styrene content.
Polymerisation inhibitor / stabiliser package	Proprietary / not disclosed	Proprietary / not disclosed	<0.1% (not separately stated in the TDS)	Controls premature polymerisation during storage. 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 or fireproof.

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. The confirmed ATH filler is halogen-free and decomposes endothermically (releasing water vapour) rather than

generating halogen-containing combustion products — hydrogen halides are not expected from this specific formulation, consistent with its confirmed halogen-free chemistry.

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) where appropriate.
- 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 material from entering 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 recovered material to suitable, labelled containers.
- This product's filled, moderately higher-viscosity consistency (see Section 9) may affect spreading and clean-up time compared with unfilled resins — 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, sparks, flames, and sunlight. No smoking.
- Ground/bond transfer equipment; prevent static discharge; use non-sparking equipment, particularly for bulk transfer.
- Keep away from organic peroxide catalyst/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 range (30–35°C, per TDS) overlaps the confirmed product flash point (34°C, closed cup, per TDS) — this is a genuine, product-specific overlap, not a carried-over estimate. Storage and handling areas must be managed as flammable-liquid areas at all times, without exception:

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 bonding well with fibreglass mats; panels, tanks, covers, enclosures, and structural/decorative composite parts. Refer to the product TDS (SPR-TDS-IFR) for recommended MEKP/cobalt octoate dosage, gel time (approx. 5.5 minutes), cure time (approx. 20–30 minutes initial cure at 25°C), and processing parameters. Fire performance (UL 94 V0 as referenced in product literature) 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/m³)	ST 100 ppm (425 mg/m³)	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/m³)	STEL 100 ppm (425 mg/m³)	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, including ATH-containing particulate. 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.

8.2 Exposure Controls

- Engineering controls: Local exhaust ventilation and general mechanical 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 shield where splashing is possible.
- Hand protection: Chemically resistant gloves suited to styrene/polyester resin systems.
- Body protection: Protective clothing.
- Respiratory protection: Organic-vapour respiratory protection where ventilation is inadequate and where permitted under applicable respiratory-protection procedures.
- 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
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	34°C (closed cup), per manufacturer TDS
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	1.18 g/cm ³ , per manufacturer TDS (chemist-verified)
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 for the complete mixture. The confirmed ATH filler decomposes endothermically at approx. 180–200°C (general reference for ATH), releasing water vapour; hazardous decomposition of the resin matrix may occur under fire, excessive heat, or uncontrolled polymerisation
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) described in the manufacturer's product literature 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 verification 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, direct sunlight, sparks, open flames, 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. The confirmed ATH filler is halogen-free and releases water vapour on endothermic decomposition rather than halogen-containing combustion products.

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. Aluminium trihydrate (ATH), the confirmed fire-retardant filler, is a well-characterised material generally regarded as having low acute toxicity and is not typically classified as hazardous under GHS in published reference data; it is not independently discussed further below.

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
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
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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. Aluminium trihydrate is a naturally-occurring mineral compound with low water solubility and is not expected to present a significant aquatic hazard; no ATH-specific ecotoxicity testing for this product is available.

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.
- Empty containers may retain flammable vapours/residue. 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 in the manufacturer's product literature is stated outside the chemist-verified technical properties table — obtain the actual test report/certificate 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.
- Aluminium trihydrate (CAS 21645-51-2) is a widely used, well-characterised industrial mineral filler/flame retardant with established regulatory acceptance across major chemical inventories.
- 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 · ATH = Aluminium Trihydrate (Aluminium Hydroxide) · 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 · ISO (product context) = Isophthalic · 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.