



MATRIX CHEMICAL INDUSTRIES (PVT) LIMITED
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MSDS

Material Safety Data Sheet

MATPOL UNSATURATED POLYESTER RESIN

1. Chemical Products and Company Identification:

- Product name: Matpol@(Un-Saturated Polyester Resin)
- Company: Matrix chemical Industries (Pvt) Ltd
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- Telephone : +92 (42) 3652 4371-73
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- Emergency Telephone: +92 (300) 8226586

2 Composition/Information on ingredients

Substance/Preparation:

Preparation of dissolved polymer(s)

Chemical Name	CAS Number	Conc. (%)	EC Number	Symbol	R phrases
• Styrene	100-42-5	12,5 – 60	202-851-5	Xn	R10
• Unsaturated Polyester Resin		40-87.5			Xn; R20 Xi; R36/38

3 Hazards Identification

- Human Health Hazards: Flammable, Harmful by inhalation, Irritating to eyes and skin
Effects and symptoms
- Inhalation: Harmful by inhalation
- Ingestion: Sore throat, stomach-ache, headache, dizziness, vomiting, dullness
- Skin Contact: Dry skin, redness
- Eye Contact: Pain, redness
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4 First – Aid Measures

- Inhalation: Move to fresh air, loosen clothing, Artificial respiration in case of Difficulty in breathing Seek medical advice after significant exposure.
- Ingestion: Do not induce vomiting because of risk of aspiration. Rinse mouth With plenty of Water Seek medical advice
- Skin Contact: Wash with plenty of soap and water immediately. Take all contaminated clothing off immediately, Seek medical advice
- Eye Contact: Eye lids should be held away from the eyeball to ensure thorough Rinsing Always seeks medical advice.
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5 Fire-Fighting Measures

Extinguishing Media

- Suitable: Small fire: Use dry chemical powder.
Large Fire: Use alcohol foam, water spray. Cool containing. Vessels with water jet in order to prevent boil-up, Auto ignition Or explosion
- Hazardous thermal. In case of toxic fumes might be formed.
- Protection of Fire-Fighters: Wear protective clothing and use self-contained breathing apparatus.

6 Accidental Release Measures

- Personal Precautions: Put on adequate protective equipment. Do not breathe vapour.
- Environmental Precautions and cleanup methods: Keep away from drains, surface-water, ground-water and soil. Collect as much as possible in a clean container for disposal. Cover the remainder with inert absorbent. Disposal according to local regulations

7 Handling and Storage

- Handling: Keep away from heat. Keep away from source of ignition. No smoking. Do not breathe Vapour. Avoid contact with skin and Eyes. Take precautionary measures against static discharges.
- Storage: Keep in a cool, well ventilated place away from peroxide. Take Precautionary measures against static discharge. The shelf life of the styrene contains unsaturated polyester resin will be Reduced when exposed to light. Store in dark place at 25c

8 Exposure Controls/Personal Protection

Occupational Exposure Limits

<u>Ingredients Name</u>	<u>TLV/PEL</u>
Styrene	EH40 (United Kingdom (UK), 2000) TWA: 430mg/m ³ 8hour (s) TWA: 100ppm 08hour (s) STEL: 1080 mg/m ³ 15 minute(s) STEL: 250 ppm 15 minute(s)
	EH40-MEL (United Kingdom (UK), 2002). Notes: MEL TWA: 100ppm 8 hour(s) TWA: 430 mg/m ³ 8 hour(s) STEL: 250 ppm 15 minute(s) STEL: 1080 mg/m ³ 15 minute(s)
Styrene	Arbe idsinspectie (Netherlands, 2000) TGG 8 uur: 107 mg/m ³ 8 hour(s) Nationale MAC-lijst (Netherlands, 2001), Notes: Legal TGG 8 uur: 107 mg/m ³ 8 hour(s) TGG 8 uur: 25 ppm 8 hour(s)

Personal Protective Equipment

- Respiratory System: Vapour respirator. Be sure to use an approved/certified respirator or Equivalent, Wear appropriate respirator when ventilation is inadequate.
- Skin and Body: Lab coat.
- Hands: Gloves.
- Eyes: Splash goggles.

9 Physical and Chemical Properties

Physical State and appearance:	Liquid (hazy Liquid)
Colour:	Transparent/yellow
Odour:	Characteristic.
Boiling Point:	the lowest know value is 145°C (293 °F)(Styrene)
Melting Point:	May start to solidify at – 31°C (-23.8°F) based on data for styrene
Bulk density:	1, 06-1, 65 gr/cm ³
Vapour density:	The highest known value is 3.6(Air=1) (styrene)
Vapour pressure:	The Highest known value is 0.6 kpa (@ 20°C) (Styrene)
Solubility:	Easily soluble in cold water, hot water, methanol acetone
PH:	Not applicable
Flash point:	CLOSED CUP: 33°C (91.4°F)
Auto-ignition Temperature:	The lowest know value is 490°C (914°F) (Styrene)
Explosion Limits In air:	The greatest known range is LOWER: 1.1% UPPER: 8% (Styrene)
Viscosity (@ 23°C)	Dynamic :> 300 mpa.s

10 Stability and Reactivity

Conditions to avoid/Materials to avoid:	Excessive heating. Protect against sunshine .Do not Mix with peroxides.
Hazardous to decomposition Products:	These products are carbon oxides (CO, CO2) and water .some metallic oxides

11 Toxicological Information

Acute Data (LDs50, LC50) –Toxicity to Test Animals	Acute oral toxicity (LD50): 316mg/kg (Rat) (value calculated for the mixture) Actual toxicity of the gas (CL50): 6000 ppm (Value calculation for the mixture)
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12 Ecological Information

Mobility:	Not available
Persistence/Degradability:	Not available
Bio accumulative Potential:	Not available
Ecotoxicity:	Not available

13 Disposal Considerations

Methods of Disposal, waste of Residues; Contaminated Packaging:	Waste must be disposed off in accordance with federal, State and local environmental control regulations
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14 Transport Information

International Transport Regulations

- | | |
|---------------------------------|--|
| • Un Number: | 1866 |
| • <u>Land –Road/Railway</u> | |
| • Proper shipping name: | Resin Solution, Flammable |
| • ADR/RID Class: | 3 |
| • ADR/RID item Number: | Not available |
| • Packing Group: | III |
| • Hazard Identification Number: | 30-1866 |
| • Remark: | <u>Hazard identification number</u>
30-1866
<u>CEPIC Trecard</u>
30GF1- III
<u>Remarks</u> |

ADR/RID label



This class 3 material can be considered non hazardous
In packing up to 450L

Sea

- Proper shipping name: Resin solution, flammable
- IMDG Class: 3

- IMDGS page number (GB) Not available
- Packing Group: III
- Medical First Aid Guide (MFAG): Not available
- Emergency Schedules(EmS): F-E: S-E
- Marine pollutants

IMDG Label



Air

- Prober shipping name: Resin Solution, flammable
- UN/ID Number: 1866

- IATA-DGR class: 3

IATA Label



15 Reguionlatory Informat

EU Regulations

- Contains: Styrene
- Hazard Symbol(s)

Styrene



- Risk Phrases: R-10-flammable
R20-Harmful by inhalation
R36/38-Irritation to eyes and skin
- Safety Phrases: S23-Do not breathes gas/fumes/vapour.

16. Other Informations

- Date of Issue: 01-01-2011
- Version: Doc. msds. Matpol. Jan 2011
- Prepared by: Matrix Chemical Industries(Pvt) Ltd

Information in this MSDS is provided to users to ensure that the product is used safely and in conjunction with the Product Technical Bulletin, is used effectively. The information is given to the best our knowledge and is based on laboratory test and practical experience. Polyester resin often used conditions outside is not in our control; we therefore cannot accept liability for the performance. Informations given in this liable to modify without any notice,