

MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Identification

Trade name : PolyPol -1015

Chemical Name : Orthophthalic Unsaturated Polyester Resin Solution in Styrene

Manufacturer : Polychem Resins International Industries LLC,
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2. Composition/Information on Ingredients

Preparation : Esterification reaction of diacids and diols, Unsaturated polyester resin

Components	CAS-No.	Labeling	Concentration
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Styrene	100-42-5	Xn;R10-R20-R36/38	35 – 46 %
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Component or Impurity contributing to hazard

Components	CAS-No.	OSHA	ACGIH TLV	Concentration
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Styrene	100-42-5	100 ppm	s,50 ppm/100STEL	35 - 46 %
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3. Hazard Identification

(a) Flammable (b) Harmful if inhaled (c) Irritating to eyes and skin (d) The mixture of product vapour and air could be explosive. (e) Keep away from source of ignition.

4. First Aid Measures

Inhalation : Remove from area to fresh air. If respiratory irritation develops or breathing becomes difficult, seek medical attention immediately.

Skin Contact : After contact with skin, wash immediately with plenty of soap and water. If irritation develops and persists, seek medical attention. Remove all the contaminated clothing.

Eye Contact : For eye contact, flush eyes with running water for at least 15 minutes. Hold eyelids apart to ensure rising of entire surface of the eyes and lids with water. If irritation persists consult ophthalmologist.

Ingestion : If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Call a physician.

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5. Fire Fighting Measures

Suitable extinguishing media : Dry powder, Carbon dioxide (CO₂) , foam, water spray, .
Do not use solid water stream.

Specific hazard during fire : Hazardous gases produced in fire under conditions that
Fighting produce incomplete combustion may consists of

Carbon Monoxide and aromatic hydrocarbons.

Special protective equipment for fire-fighting : Use personal protective equipment. Do not breath fumes .
Explosive vapours in air.

Additional advise : Water mist may be used to cool closed containers.

6. Accidental Release Measures

Personal precautions : Use personal protective equipment. Keep people away from
and upwind of spill/leak. Remove all sources of ignition.
Avoid inhalation of vapours.

Environmental precautions : Keep spill out of sewers and open bodies of water . Do not
wash remainder with water.

Methods for cleaning up : Absorb spill with inert material (sand, saw dust, earth, etc.)
and give the liquid and soil in separate containers for
recovery or disposal . Keep spill out of sewers and open
bodies of water.

7. Handling and Storage Handling

Safe handling Advice : Provide sufficient air exchange and/or exhaust in
work rooms. Avoid contact with skin. No smoking.
Keep container tightly closed

Advise on protection against fire and explosion : Danger ! Flammable material. Keep away from heat
and sources of ignition. To avoid ignition of vapours
by static electricity discharge , all metal parts of the
equipment must be grounded . Incomplete with
oxidising agents.

Storage

Requirements for storage areas and direct containers : Keep in a dry , cool and well-ventilated place. To
maintain product quality, do not store in heat or
and Sunlight. Do not store at temperature exceeding
25 ° C in original container only.

Other data : Keep container tightly closed.

Storage stability

Stable at normal conditions

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8. Exposure Controls/Personal Protection

Components with workplace control parameter

Styrene	: CAS No. : 100-42-5)
ACGIH-TLV	
Exposure Limits	: 20 ml/m ³ , 85 mg/ m ³
Short Term exposure limit	: 40 ml/m ³ , 170 mg/ m ³

Personal Protective Equipment

Hygiene measures	: Avoid contact with skin, eyes and clothing. Do not breath vapour. Wash hands before breaks and immediately after handling the product. Remove working clothes after work for body protection.
Respiratory Protection	: Mask with A-type filter for organic vapours
Hand protection	: Solvent –resistant gloves
Eye Protection	: Safety glasses

9. Physical and Chemical Properties

Appearance

State of aggregation	: Liquid(@ 25° C)
Form	
Colour	: bluish colour
Odour	: Styrene like

Safety relevant Data

Boiling point range	: *145 ° C @ 760 mm of Hg
Density	: > 1g/cm ³ @ 25 ° C
Relative vapour density	: *3.6
Vapour pressure	: *7 mbar(20° C)
Water solubility	: *0.30 gm/lit in soluble
pH	: Not Applicable
Viscosity, Dynamic	: < 1000 mPa.s@25 ° C by Brookfield viscometer

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Flash point	: *31.5 ° C
Upper Explosion Limit	: *8 % (V)
Lower Explosion Limit	: *1.1 % (V)
Ignition temperature	: *490 ° C

(* This data is for Styrene)

10. Stability and Reactivity

Hazardous Reactions	: Stable under normal storage conditions. When heated at relatively high temperature the resin polymerises spontaneously. This reaction could be strongly exothermic. Avoid leaving mass of catalysed material.
Decomposition Products	: Carbon Dioxides, Aromatic hydrocarbons
Conditions to avoid	: Heat
Material to Avoid	: Strong oxidising agents. Never mix organic peroxide with accelerator.

11. Toxicological Information

The following toxicological data refer to :

Styrene	: (CAS No. : 100-42-5)
Acute oral toxicity (LD ₅₀)	: 2650 mg/Kg
Acute inhalation toxicity (LC ₅₀)	: 12mg/lit Species : Rat Exposure time : 4 hours
Skin Irritation	: Mild Irritant Species : Rabbit

12. Ecological and Ecotoxicological Information

Additional advice	: At present there is no ecotoxicological information available
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13. Disposal Considerations

Waste from residue : Do not empty into drains . This material must be disposed off as hazardous waste. Dispose of in compliance with all federal , state and local laws and regulations.

14. Transport Information

ADR : Class 3/Item: 31.5 ° C
Packaging group : III
Label : Flammable liquid No.3
HI No. : 30

RID : : Class 3/Item: 31.5 ° C
Packaging group : III
Label : Flammable liquid No.3
HI No. : 30

IATA Cargo : Class : 3
Packaging group : III
Label : Flammable Liquid No.3
Packing instructions (passenger aircraft) : 305

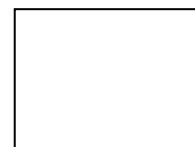
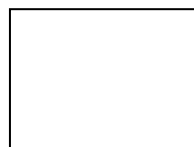
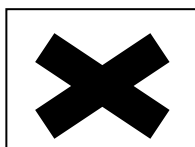
IMDG-Code : Class 3.3
Packaging group : III
Label : Flammable Liquid No.3
Ems : 3-05
MFAG : 310

UN/ID No. : 1866
Proper shipping name : Resin Solution, flammable

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15. Regulatory Information

Hazardous Material : Yes
Additional Advice : Data indicated is for Styrene. Classification and labelling according Directive 88/379/EEC:
EU Index No. : 601-026-00-0
Symbols/Indications of danger :



R-phrase(s) R10 : flammable
R20 : Harmful by inhalation
R36/38: Irritation by eyes and skin
S-Phrase(s) S23 : Do not breath vapour

16. Other Information

Other Instructions/regulations : The product is a preparation . The components are listed in TSCA and EINECS

The information contained herein is believed to be correct and corresponds to the latest state of scientific and technical knowledge . However, no warranty is made, either express or implied , regarding its accuracy or the results to be obtained from the use of such information.

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