

MATERIAL SAFETY DATA SHEET

MSDS

REICHHOLD

POLYLITE ® 441 - 841

1. PRODUCT AND COMPANY

<input type="checkbox"/>	Approved for use	<input type="checkbox"/>
<input type="checkbox"/>	Approved for laboratory use	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Approved by Reichhold	<input type="checkbox"/>

TRADE NAME	POLYESTER STANDARD
CHEMICAL NAME	ORTHOPHTHALIC UNSATURATED POLYESTER RESIN
GROUP NAME	POLYLITE ® 441 - 841
APPLICATION	Unsaturated polyester resin for General Application

Producer/Importer	Reichhold Inc.
Address	P.O. Box 16911
Zip code & City	Jebel Ali Free Zone, Dubai,
Telephone	+ 971 4 8168700
Fax	+ 971 4 8835887
Issued by	Shrikumar Nair, Reichhold Inc.

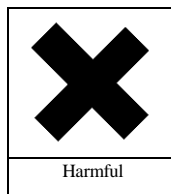
2. COMPOSITION OF PRODUCT

No	Ingredients name	CAS-NO	Cons. (weight %)	Classification
1	Styrene	100-42-5	30 - 45	Xn,10-20-36/38
Legend		T+=Very toxic, T=Toxic, C=Corrosive, Xn=Harmful, Xi=Irritant, IK=No classification required, E=Explosive, O=Oxidising, F+=Extremely flammable, F=Very flammable, Fo=Flammable, N=Dang. to the environment, Mut=Genotoxic, Sens=Sensitizing, Carc=Cancerogen, Repr=Causes birth defects		

INGREDIENT COMMENTS

Substances presenting a health hazard within the meaning of the CHIP Regulations or assigned occupational exposure limits.

3. HAZARD IDENTIFICATION



FLAMMABLE. HARMFUL BY INHALATION. IRRITATING TO EYES AND SKIN. For potential danger to the environment, see section 12.

4. FIRST AID

GENERAL

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

INHALATION

Provide fresh air, keep the patient warm and at rest. If breathing has stopped, administer artificial respiration. If unconscious place in the recovery position. Summon physician immediately.

SKIN CONTACT

Remove contaminated clothing. Wash skin thoroughly with soap and water or use an appropriate skin cleaner. Do NOT use solvents or thinners.

POLYLITE ® 441 - 841**EYE CONTACT**

Remove any contact lenses. Hold the eyelids apart. Irrigate copiously with clean, fresh water for at least 10 minutes. Get medical advice if irritation persists.

INGESTION

DO NOT INDUCE VOMITING. If accidentally swallowed obtain immediate medical attention. Keep at rest. Seek medical advice.

MEDICAL INFORMATION

Risk of chemical pneumonia by aspiration. Keep attention: danger of lung damage. General health examination. Professional evaluation of the work station.

5. FIRE FIGHTING MEASURES **PROPER FIREFIGHTING EQUIPMENT**

Recommended: alcohol resistant foam, CO₂, powders, water spray. Not to be used: water jet.

FIRE AND EXPLOSION HAZARDS

Fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required.

OTHER INFORMATION

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains.

6. ACCIDENTAL RELEASE MEASURES **OTHER INFORMATION**

Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in sections 7 and 8. Place in container for disposal according to local regulations (see section 13). Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite and diatomaceous earth. Do not allow to enter drains or watercourses. Clean preferably with a detergent; avoid use of solvents. If the product enters drains or sewers, the local water company should be contacted immediately; in the case of contamination of streams, rivers or lakes, the National Rivers Authority.

7. HANDLING AND STORAGE **HANDLING ADVICE**

Vapors are heavier than air and may spread along the ground to sources of ignition. Vapours may form explosive mixtures with air. Prevent the formation of flammable or explosive mixtures and avoid vapours concentrations higher than the occupational exposure limit. The product should not be used in the vicinity of open flames or other sources of ignition. Use explosion-proof electrical equipment. The product may charge electrostatically. Always use earth (ground) wire when transferring from one container to another. Personnel should wear anti-static clothing and footwear. Floors should be electrically conductive. Keep container tightly closed. Exclude sources of heat, sparks and open flame. Use non-sparking tools. Avoid skin and eye contact. Avoid inhalation of vapour and spray. Smoking, eating and drinking are forbidden in the work area. For personal protective equipment: see section 8. Always keep in containers made of the same material as the supply container. Never use pressure to clean container. Electrical equipment should be protected to appropriate standards. The Manual Handling Operations Regulations may apply to the handling of containers of this product.

STORAGE

Store in accordance with the conditions of the license which is necessary under the Petroleum (Consolidation) Act. Further guidance is contained in the HSE guidance note Storage of Flammable Liquids in Containers. Observe precautions on container label. Store in a dry, cold and well ventilated place away from sources of heat, ignition and direct sunlight. Store separately from oxidizing agents and strongly alkaline and strongly acidic materials. No smoking. Containers which have been opened must be carefully resealed and kept upright to prevent leakage.

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8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Ingredients name	CAS-no	TLV value	TLV Year
styrene	100-42-5	420,0 mg/m ³	1996

EXPOSURE CONTROL

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulate and solvent vapors below the OELs, suitable respiratory protection should be worn. Spray mist contains all substances of the product and must not be inhaled. OELs are taken from the current version of EH40 (by Health & Safety Executive, UK).

RESP. PROTECTION

Gas mask with filter A (brown, organic substances) may be necessary. Gas mask with combined filter (gas filter A/dust filter P2) may be necessary when spraying.

EYE PROTECTION

Eye protection designed to protect against liquid splashes should be worn.

HAND PROTECTION

For prolonged or repeated contact, use PVA or Viton gloves. Barrier creams may help to protect exposed areas of the skin but are not substitutes for full physical protection. never apply barrier cream to contaminated skin.

SKIN PROTECTION

Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed. When spraying use suit covering the whole body.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid.		
Colour	Bluish green.		
Odour	Characteristic.		
Solubility	Soluble in:Aromatic hydrocarbonsEstersKetones		
Melting point/range	-	Density	1,05 - 1,15 g/cm ³
Expl. limit LEL-UEL., %- %:	1,1- 8 (styrene)	Solubility in water	Low solubility
Vapor pressure	6 hPa v/20°C	Saturation conc.	
Decomposition temp.		Rel. density sat. air (air=1)	
pH Solution		Boiling point/range	145°C
Flash point	32°C	pH concentrate	-
Molecular weight		Viscosity	
Ignition temp	490°C	Smelling limits lo-hi	
Rel. vapor density (air=1)		Rel. evap. velocity	
Air reactive		Water reactive	

10. STABILITY AND REACTIVITY

STABILITY Stable under recommended storage and handling conditions (see section 7).

MATERIALS TO AVOID

Keep away from oxidizing agents, strong alkaline and strong acidic materials to prevent the exothermic reactions.

HAZARDOUS DECOMPOSITION PRODUCTS

In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide and oxides of nitrogen may be produced.

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11. TOXICOLOGICAL INFORMATION

GENERAL; There is no toxicological data available on the product itself.

INHALATION; Exposure to organic solvent vapors may result in adverse health effects such as irritation of the mucous membrane and the respiratory system and adverse effects on the renal and central nervous system. Symptoms and signs include headache; dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

SKIN CONTACT Repeated or prolonged contact with the product may lead to removal of natural fats from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

EYE CONTACT Splashes in the eyes may cause irritation and reversible local damage.

INGESTION Accidental ingestion may cause vomiting and abdominal pains. Chemical pneumonia can occur if solvent fumes are inhaled.

CANCER; Styrene has been classified as possibly carcinogenic to humans cat. 2B by IARC.

12. ECOLOGICAL INFORMATION

MOBILITY Sinks in water. Solubilize slowly.

OTHER INFORMATION There is no data available on the product itself. Do not discharge the product to sewer or drains.

13. DISPOSAL

Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act. Do not allow into drains or water courses. Waste must be disposed of at approved landfill/waste storage or treatment facility.

WASTEGROUP

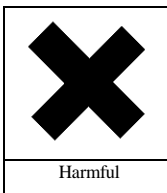
07 02 00 WASTE FROM THE MFSU OF PLASTICS, SYNTHETIC RUBBER AND MAN-MADE FIBRES.07 02 04 other organic solvents, washing liquids and mother liquors

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME	RESIN SOLUTION		
Toll. reg. no.	39079100		
HAZCHEM			
ADR (Road)			
UN No.	1866	Dang. goods	
Class	3.31(c)	Label	3
Haz. id. no		Marginno.	
RID (Railway)			
UN No.		Dang. goods	
Class		Label	
Haz..id.no			
IMDG (Sea)			
UN No.	1866	Dang. goods	
Class	3.3	Label	
Packaging group		EmS	3 - 05
MFAG	310	Marine Pollutant	P
Sub. risk		Page	
IATA (Airplane)			
UN No.	1866	Dang. goods	
Class	3	Sub. risk	
Label		Packaging group	

POLYLITE ® 441 - 841**GENERAL**

Transport only in accordance with ADR for road, RID for rail and IMDG for sea transport. Not regulated according to ADR, ref. marg. no.2301 E (for containers < 450 ltr).

15. REGULATORY INFORMATION **R-PHRASES**

R10 Flammable. R20 Harmful by inhalation. R36/38 - Irritating to eyes and skin.

S-PHRASES

S23 Do not breathe vapour/spray. S38 In case of insufficient ventilation, wear suitable respiratory equipment.

REFERENCES

The product is classified and labeled for supply in accordance with the CHIP Regulations.

16. OTHER INFORMATION

ISSUED: 01 – 01.2012

VENDOR NOTES

The information contained in this MSDS is based on the present state of knowledge and current national legislation. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information in this MSDS provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992:2839). Further information and relevant advice can be found in: The Control of Substances Hazardous to Health Regulations 1988 (SI1988:1657). The Highly Flammable Liquids and liquefied Petroleum Gases Regulations 197 (SI 1972:917). The Manual Handling Operations Regulations 1992 (SI 1992:2793). Storage of Flammable Liquids in Containers, HS(G)51. Storage of Packaged Dangerous Substances, HS(G)71.