

Safety Data Sheet according to 1907/2006/EC, Article 31

Printing date: 14.02.2011

Revision: 11.02.2011

1 Identification of substance

· **Product details**

· **Trade name** POLYLITE® 440-M880

· **Application of the substance / the preparation** LSE polyester resin

· **Manufacturer/Supplier:**

Reichhold, Inc.
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· **Informing department:**

Product Safety Europe/Middle East
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· **Emergency information:**

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2 Hazards identification

· **Hazard designation:**



Xn Harmful

· **Information pertaining to particular dangers for man and environment**

R 10 Flammable.

R 20 Harmful by inhalation.

R 36/38 Irritating to eyes and skin.

· **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

3 Composition/information on ingredients

· **Chemical characterization**

· **Description:** Polyester resin

· **Dangerous components:**

CAS: 100-42-5 Styrene

44 ± 2%

EINECS: 202-851-5 Xn, Xi; R 10-20-36/38

CAS: 98-83-9 α -methylstyrene

≤ 0.5%

EINECS: 202-705-0 Xi, N; R 10-36/37-51/53

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· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· **General information**

Take affected persons into the open air.

Personal protection for the First Aider.

· **After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness bring patient into stable side position for transport.

· **After skin contact** Instantly wash with water and soap and rinse thoroughly.

· **After eye contact** Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

· **After swallowing**

Rinse mouth with water.

Seek medical treatment.

5 Fire fighting measures

· **Suitable extinguishing agents**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol-resistant foam.

· **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

· **Protective equipment:**

Wear breathing apparatus.

Do not inhale explosion gases or combustion gases.

6 Accidental release measures

· **Person-related safety precautions:**

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Use breathing protection against the effects of fumes/dust/aerosol.

· **Measures for environmental protection:**

Do not allow product to reach sewage system or water bodies.

Inform respective authorities in case product reaches water or sewage system.

· **Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

7 Handling and storage

· **Handling**

· **Information for safe handling:**

Keep containers tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Storage**
- **Requirements to be met by storerooms and containers:** Store in cool location.
- **Information about storage in one common storage facility:**
Store away from oxidizing agents.
Store away from foodstuffs.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
Protect from heat and direct sunlight.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with critical values that require monitoring at the workplace:**

100-42-5 Styrene

WEL (Great Britain) Short-term value: 1080 mg/m³, 250 ppm
Long-term value: 430 mg/m³, 100 ppm

98-83-9 α -methylstyrene

WEL (Great Britain) Short-term value: 491 mg/m³, 100 ppm
Long-term value: 246 mg/m³, 50 ppm
IOELV (European Union) Short-term value: 492 mg/m³, 100 ppm
Long-term value: 246 mg/m³, 50 ppm

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **Personal protective equipment**

- **General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

- **Breathing equipment:**

Use breathing protection in case of insufficient ventilation.

In case of short term exposition use breathing apparatus; in case of intensive or continuous exposition use breathing apparatus with independent air supply.

Filter A

- **Protection of hands:**

The glove material has to be impermeable and resistant to the product/substance/preparation.

Check the permeability prior to each renewed use of the glove.

- **Material of gloves**

Fluorocarbon rubber (Viton)

PVA gloves

- **Penetration time of glove material**

The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Tightly sealed safety glasses.

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· **Body protection:** Protective work clothing.

9 Physical and chemical properties:

· General Information

Form: liquid
Colour: blue
Odour: Pungent

· Change in condition

Melting point/Melting range: not determined
Boiling point/Boiling range: 145 - 164°C

· **Flash point:** 32°C (EN ISO 1523)

· **Ignition temperature:** 445°C (DIN 51794)

· **Self-inflammability:** Product is not self-inflammable.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures is possible.

· Critical values for explosion:

Lower: 0.9 Vol %
Upper: 8.9 Vol %

· **Vapour pressure at 20°C:** 7 hPa

· **Density at 23°C:** 1.10 ± 0.02 g/cm³

· Solubility in / Miscibility with

Water: insoluble

· **pH-value:** not applicable

· Viscosity:

dynamic at 23°C: 1100 - 1300 mPas (Brookfield)

10 Stability and reactivity

· **Conditions to be avoided:** No decomposition if used and stored according to specifications.

· Dangerous reactions:

Reacts with peroxides and other radical forming substances
Exothermic polymerisation

· Dangerous products of composition:

In case of fire:
carbon monoxide and carbon dioxide

11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

100-42-5 Styrene

Oral LD50 5000 mg/kg (rat)

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*Inhalative LC50 (4h) 24 mg/l (rat)***98-83-9 α -methylstyrene***Oral LD50 4500 mg/kg (rat)*

- **Primary irritant effect:**
- **on the skin:** Irritant for skin and mucous membranes.
- **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.

12 Ecological information:

- **Information about elimination (persistence and degradability):**

100-42-5 Styrene*OECD 301C-Test > 60 % (Literature)*

- **Behaviour in environmental systems:**
- **Mobility and bioaccumulation potential:**

100-42-5 Styrene*BCF 13.5 - 64 (Literature)**log Pow 3.16 (Literature)***98-83-9 α -methylstyrene***log Pow 3.265 (Literature)*

- **Ecotoxicological effects:**
- **Aquatic toxicity:**

100-42-5 Styrene*LC50 (48h) 23 mg/l (Daphnia magna)**LC50 (96h) 32 mg/l (Pimephales promelas)***98-83-9 α -methylstyrene***EC/LC10 (18h) 283 mg/l (Pseudomonas putia)**LC50 (48h) 28 mg/l (Leuciscus idus)*

- **General notes:**

*Water hazard class 2 (Self-assessment): hazardous for water.**Do not allow product to reach ground water, water bodies or sewage system.*

13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**
07 00 00 WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02 00 wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 99 wastes not otherwise specified
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

- Land transport ADR/RID and GGVs/GGVE (cross-border/domestic)
- ADR/RID-GGVs/E Class: 3 Flammable liquids.
- Kemler Number: 30
- UN-Number: 1866
- Packaging group: III
- Label 3
- Designation of goods: 1866 RESIN SOLUTION, Special provision 640E

- Maritime transport IMDG/GGVSea:
- IMDG/GGVSea Class: 3
- UN Number: 1866
- Label 3
- Packaging group: III
- EmS Number: F-E,S-E
- Marine pollutant: No
- Proper shipping name: RESIN SOLUTION

- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: 3
- UN/ID Number: 1866
- Label 3
- Packaging group: III
- Proper shipping name: RESIN SOLUTION

15 Regulatory information

- Classification according to EC-regulations:
The product has been classified and labelled in accordance with EC Directives.
- Code letter and hazard designation of product:



Xn Harmful

- Hazard-determining components of labelling:
Styrene
- Risk phrases:
10 Flammable.
20 Harmful by inhalation.
36/38 Irritating to eyes and skin.
- Safety phrases:
9 Keep container in a well-ventilated place.
23 Do not breathe fumes/aerosol.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37 Wear suitable protective clothing and gloves.
43 In case of fire, use CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol-resistant foam. Never use water with full jet.
60 This material and its container must be disposed of as hazardous waste.

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- **National regulations**
- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases**

10 Flammable.

20 Harmful by inhalation.

36/37 Irritating to eyes and respiratory system.

36/38 Irritating to eyes and skin.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Department issuing data specification sheet:** Product Safety Europe/Middle East

· **Contact:**

Product Safety Europe/Middle East

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