

Doc. : G2

## 1. Chemical Product and Company Identification

**Product Name** : SYNOLITE 2020-P-1

**Company:** : DSM Composite Resins AG  
Stettenerstrasse 28  
CH-8207 Schaffhausen  
Switzerland  
Tel: +41 (52) 6441212  
www.dsm.com/drs

**Emergency telephone number** : Emergency phone: +31(0)38.456.9289

## 2. Composition / information on ingredients

**Substance/preparation** : Preparation of dissolved polymer(s)

Chemical Name	CAS No.	%	EC Number	Symbol	R Phrases
Styrene	100-42-5	12.5-60	202-851-5	Xn	R10, R20, R36/38

## 3. Hazards Identification

**Human health hazards** : Flammable. Harmful by inhalation. Irritating to eyes and skin.

### Effects and symptoms

- **Inhalation** : Coughing, headache, dizziness, drowsiness, unconsciousness, nausea and vomiting.
- **Ingestion** : Sore throat, stomach-ache, headache, dizziness, vomiting, dullness.
- **Skin Contact** : Dry skin, redness.
- **Eye Contact** : Pain, redness.

## 4. First-Aid Measures

### First-Aid measures

- **Inhalation** : Move to fresh air, rest, half upright position, 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 water. Seek medical advice.
- **Skin Contact** : Wash with plenty of soap and water immediately. Take all contaminated clothing off immediately. Seek medical advice if irritation develops.
- **Eye Contact** : Rinse immediately with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Always seek medical advice.

## 5. Fire Fighting Measures

### Extinguishing Media

- Suitable : Powder, carbon dioxide, foam, watermist (only large amounts).

### Hazardous thermal (de)composition products

: In case of fire 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 Clean-up 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 sources 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 peroxides. Take precautionary measures against static discharges. The shelf life of styrene containing unsaturated polyesters will be significantly reduced when exposed to light. Store in dark in 100% light tight containers only.

## 8. Exposure Controls/Personal Protection

### Occupational Exposure Limits

#### Ingredient Name

styrene

#### TLV/PEL

##### **EH40 (United Kingdom (UK), 2000).**

TWA: 430 mg/m<sup>3</sup> 8 hour(s).

TWA: 100 ppm 8 hour(s).

STEL: 1080 mg/m<sup>3</sup> 15 minute(s).

STEL: 250 ppm 15 minute(s).

##### **EH40-MEL (United Kingdom (UK), 2002). Notes: MEL**

TWA: 100 ppm 8 hour(s).

TWA: 430 mg/m<sup>3</sup> 8 hour(s).

STEL: 250 ppm 15 minute(s).

STEL: 1080 mg/m<sup>3</sup> 15 minute(s).

#### Ingredient Name

styrene

#### TLV/PEL

##### **Arbeidsinspectie (Netherlands, 2000).**

TGG 8 uur: 107 mg/m<sup>3</sup> 8 hour(s).

##### **Nationale MAC-lijst (Netherlands, 2001). Notes: Legal**

TGG 8 uur: 107 mg/m<sup>3</sup> 8 hour(s).

TGG 8 uur: 25 ppm 8 hour(s).

### Personal Protective Equipment

#### - Respiratory system

: Never exceed the national Occupational Exposure Limit. Use local exhaust ventilation or handle in a ventilated enclosure. For greater protection a facepiece chemical cartridge respirator is recommended. (A3)

#### - Skin and body

: Chemical resistant protective suit. Chemicals resistant boots.

#### - Hands

: Gloves, Chemical resistant.(Butyl rubber; Polyvinyl alcohol)

#### - Eyes

: Safety glasses with side shields.

## 9. Physical and Chemical Properties

### Physical State and Appearance

: Liquid. (Hazy liquid.)

### Color

: Bluish-grey

### Odor

: Characteristic.

### Boiling Point

: The lowest known 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 (@ 23°C)

: 1.1 g/cm<sup>3</sup>

<b>Vapor Density</b>	: The highest known value is 3.6 (Air = 1) (Styrene).
<b>Vapor Pressure</b>	: The highest known value is 0.6 kPa (@ 20°C) (Styrene).
<b>Solubility</b>	: Insoluble in cold water.
<b>Octanol/water partition coefficient</b>	: Not available.
<b>pH</b>	: Not applicable.
<b>Flash Points</b>	: CLOSED CUP: 33°C (91.4°F)
<b>Auto-Ignition Temperature</b>	: The lowest known value is 490°C (914°F) (Styrene).
<b>Explosion Limits in air</b>	: The greatest known range is LOWER: 1.1% UPPER: 8% (Styrene)
<b>Viscosity (@ 23°C)</b>	: Dynamic: >300 mPa.s

## 10. Stability and Reactivity

<b>Conditions to avoid / Materials to avoid</b>	: Excessive heating. Protect against sunshine. Do not mix with peroxides.
<b>Hazardous Decomposition Products</b>	: None.

## 11. Toxicological Information

<b>Acute Data (LD<sub>50</sub>, LC<sub>50</sub>) - Toxicity to Test Animals</b>	: Not available.
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## 12. Ecological Information

<b>Mobility</b>	: Not available.
<b>Persistence/degradability</b>	: Not available.
<b>Bioaccumulative potential</b>	: Not available.
<b>Ecotoxicity</b>	: Not available.

## 13. Disposal Considerations

<b>Methods of disposal; Waste of residues; Contaminated packaging</b>	: Controlled incineration. Emptied drums contain solvent vapours, hazardous in respect of fire, explosion and noxiousness. Disposal only to licensed drum reconditioners.
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## 14. Transport Information

### International transport regulations

- UN number : 1866

### Land - Road/Railway

- 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 : This class 3 material can be considered non hazardous in packagings up to 450 L. (Transported in accordance with note under E of marginal 2301)

### ADR/RID label



### Sea

- Proper shipping name : RESIN SOLUTION, flammable
- IMDG Class : 3
- IMDG Page number (GB) : Not available.
- Packing Group : III
- Medical First Aid Guide (MFAG) : Not available.
- Emergency Schedules (EmS) : 3-05

### IMDG label



- Marine Pollutant : Not pollutant.

[IATA label](#) :

Air

- Proper shipping name : RESIN SOLUTION, flammable  
- UN/ID Number : 1866  
- IATA-DGR Class : 3



## 15. Regulatory Information

**EU Regulations**

- Contains : - Styrene  
- Hazard symbol(s) :



- Risk Phrases : R10- Flammable.  
R20- Harmful by inhalation.  
R36/38- Irritating to eyes and skin.  
- Safety Phrases : S23- Do not breathe vapour

## 16. Other Information

HISTORY

Date of printing : 18 Oct 2002.  
Date of issue : 18 Oct 2002.  
Date of Previous Issue : 3 Oct 2002.  
Version : 1  
Prepared by : CentralDataManagement  
*Conforms to 93/112/EC*

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