

SYNOLITE 0328-A-1

1. Identification of the substance/preparation and company/undertaking

Product name : SYNOLITE 0328-A-1
Supplier : DSM Composite Resins AG
 Stettenerstrasse 28
 CH-8207 Schaffhausen
 Switzerland
 Tel: +41 52 6441212
 www.dsm.com/drs
Emergency telephone number : Netherlands: +31 38 4569289
Recommended use : Resins system used in the production of fibre reinforced plastics or non-reinforced filled products.

2. Composition/information on ingredients

Substance/preparation : Preparation

Ingredient name	CAS no.	%	EC no. *	Classification
Styrene	100-42-5	20-35	202-851-5	R10 Xn; R20 Xi; R36/38
See section 16 for the full text of the R-phrases declared above				

* EC no. means EINECS or ELINCS number.

Occupational exposure limits, if available, are listed in section 8.

3. Hazards identification

Human health hazards : Harmful by inhalation. Irritating to eyes and skin.
Environmental hazards : Based on the available data of this product no hazardous properties are known.
Physical/chemical hazards : Flammable.

4. First-aid measures

Effects and symptoms

Inhalation : Inhalation causes headaches, dizziness, drowsiness, nausea and may lead to unconsciousness.
Ingestion : Irritating to mouth, throat and stomach.
Skin contact : Causes skin irritation. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms such as redness, blistering, dermatitis, etc.
Eye contact : Irritating to eyes. (redness and pain).

First-aid measures

General : Protection of first-aiders: Put on appropriate personal protective equipment (see section 8). Move exposed person to fresh air. Remove contaminated clothing and shoes.
Inhalation : If inhaled, remove to fresh air. Prevent cooling of the person. Keep victim at rest in half-upright position. If not breathing, give artificial respiration. Get medical attention.
Ingestion : If swallowed, rinse mouth with water (only if the person is conscious). If affected person is conscious, give plenty of water to drink. Get medical attention if symptoms appear.
Skin contact : Take off immediately all contaminated clothing. Wash with soap and water. Obtain medical attention if symptoms occur.
Eye contact : Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention.

First aid facilities : Ensure that eyewash stations and safety showers are close to the workstation location.

5. Fire-fighting measures

Extinguishing media

Small fire

- Suitable** : Use dry chemicals, CO₂ or alcohol-resistant foam. Cover with vermiculite or other non-combustible material.
- Not suitable** : Do not use water jet.

Large fire

- Suitable** : alcohol-resistant foam
- Not suitable** : Do not use water jet.

Unusual fire/explosion hazards : Vapour is explosive in air at temperatures higher than the flash point.

Hazardous thermal decomposition products : In case of fire, may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, (dense) black smoke, aldehydes, Organic acids.

Special fire-fighting procedures : Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Protection of fire-fighters : Wear suitable protective clothing. Self-contained breathing apparatus.

6. Accidental release measures

Personal precautions : Avoid contact with eyes, skin and clothing. Use suitable protective equipment (section 8). Consult expert immediately. Keep away from sources of ignition. Take precautionary measures against static discharges. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Environmental precautions : Prevent entry into sewers, basements or confined areas. Dyke if necessary.

Clean-up Methods


Small spill and leak : Take up with suitable material. Place in a suitable container. Clean up affected area with a large amount of water. Keep away from incompatible materials and avoid specific conditions (See section 10).

Large spill and leak : Prevent entry into sewers, basements or confined areas. Dyke if necessary. Absorb spill material with inert material (e.g., dry sand or earth), then place in a chemical waste container. Recycle, if possible. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Fire/explosion hazards Keep away from sources of ignition.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling : Use with adequate ventilation. Use suitable protective equipment. Avoid contact with eyes, skin and clothing. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Take measures against static discharge. Keep away from sources of ignition.

Storage :  Store in a fireproof location. Keep in a cool place. Keep away from heat and direct sunlight.

Note: See section 10 for stability and reactivity

8. Exposure controls/personal protection

Occupational exposure limits

Ingredient name

United Kingdom (UK)

 Styrene

Occupational exposure limits

EH40-MEL (United Kingdom (UK), 5/2003).
 STEL: 1080 mg/m³ 15 minute/minutes. Form: All forms
 STEL: 250 ppm 15 minute/minutes. Form: All forms
 TWA: 430 mg/m³ 8 hour(s). Form: All forms
 TWA: 100 ppm 8 hour(s). Form: All forms

Engineering measures : Use only with adequate ventilation. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.

Hygiene measures : When using do not eat, drink or smoke. Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Personal protective equipment - Production scale

- Respiratory system** : Wear filter mask, filtertype A.
- Skin and body** : Wear suitable protective clothing.
- Eyes** : Safety glasses with side shields.
- Hands** : Wear suitable gloves.

Advice on personal protection is applicable for high exposure levels. Select proper personal protection based on a risk assessment of the actual exposure situation.

9. Physical and chemical properties

Physical state	: Liquid. (Clear.)
Colour	: Blue. (Light.)
Odour	: Characteristic.
Flash point	: 33 °C (estimate)
Lower explosion limit	: Not available.
Upper explosion limit	: Not available.
Density (g/cm ³)	: 1.1 g/cm ³ (20°C)
Solubility	: Insoluble in cold water
Viscosity	: 360 to 620 mPa.s (360 to 620 cP)

10. Stability and reactivity

Stability	: Stable under recommended storage and handling conditions (see section 7). In case of incorrect use: Fire/explosion hazards.
Conditions to avoid	: Keep away from heat, sparks and flame.
Materials to avoid	: No special recommendations.

11. Toxicological information

Acute toxicity

Ingredient name	Test	Species	Route	Result
Styrene	LD ₅₀	Rat	Oral	2650 mg/kg
	LD ₅₀	Mouse	Oral	316 mg/kg
	LC ₅₀	Rat	Inhalation	12 mg/m ³ (4 hour (s))
	LC ₅₀	Mouse	Inhalation	9.5 mg/m ³ (4 hour (s))

Irritation : Hazardous in case of skin contact (irritant), of eye contact (irritant).

Chronic toxicity

Mutagenic effects : Non-mutagenic for bacteria and/or yeast. [styrene].

Note: See section 4 for effects and symptoms

12. Ecological information

Ecotoxicity data

Ingredient name	Test	Period	Result
Styrene	Selenastrum capricornutum (EC ₅₀)	48 hour(s)	0.56 mg/l
	Daphnia magna (EC ₅₀)	48 hour(s)	4.7 mg/l
	Pimephales promelas (LC ₅₀)	96 hour(s)	4.02 mg/l
	Pimephales promelas (LC ₅₀)	96 hour(s)	10 mg/l
	Lepomis macrochirus (LC ₅₀)	96 hour(s)	25.05 mg/l
	Pimephales promelas (LC ₅₀)	96 hour(s)	29 mg/l

Ingredient name	Aquatic half-life	Photolysis	Biodegradability
Styrene	-	-	Readily





Mobility : For data on physical state and solubility see section 9.

13. Disposal considerations

Methods of disposal (waste of residues; contaminated packaging) : Waste must be disposed of in accordance with national and local environmental regulations.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADR/RID Class	1866	Resin solution, flammable	3	III		<p>Hazard identification number 30</p> <p>CEFIC Tremcard 30GF1-III</p> <p>Remarks This class 3 material can be considered non hazardous in packagings up to 450 L.</p>
ADNR Class	1866	Resin solution, flammable	3	III		
IMDG Class	1866	Resin solution, flammable	3	III		<p>Emergency schedules (EmS) F-E: S-E</p>
IATA Class	1866	Resin solution, flammable	3	III		

PG* : Packing group

15. Regulatory information

EU regulations

Hazard symbol/symbols :



Harmful

Risk phrases :

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

Contains :

Styrene

202-851-5

16. Other information

Full text of R phrases referred to in sections 2 and 3 - United Kingdom (UK) : R10- Flammable.
R20- Harmful by inhalation.
R36/38- Irritating to eyes and skin.

Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK) : Xn - Harmful
Xi - Irritant

Internal code : 000458WW17914

History

Date of printing : 6 March 2006.

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Notice to reader

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.

The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

Training advice : Handling of this substance or preparation is restricted to skilled personnel only.

Sources of key data : Literature data and/or investigation reports are available through the manufacturer.

Alterations compared to the previous version : Alterations compared to the previous version are marked with a little (blue) triangle.