

SAFETY DATA SHEET



SYNOLITE 5750-A-1

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

Product name : SYNOLITE 5750-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
2-phenylpropene	98-83-9	<2.5	202-705-0	R10 Xi; R36/37 N; R51/53
Solvent naphtha (petroleum), light arom. A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C8 through C10 and boiling in the range of approximately 135 °C to 210 °C (275 °F to 410 °F).	64742-95-6	<0.25	265-199-0	R10 Xn; R65 Xi; R37 R66 N; R51/53
Cobalt bis(2-ethyl hexanoate)	136-52-7	<1	205-250-6	Xi; R38 R43
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 chemical or CO₂.

Large fire

Suitable : alcohol-resistant foam

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.

Note: See section 10 for stability and reactivity

8. Exposure controls/personal protection

Occupational exposure limits

Ingredient name

Occupational exposure limits

United Kingdom (UK)

Styrene
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

2-phenylpropene

EH40-OES (United Kingdom (UK), 5/2003).
STEL: 491 mg/m³ 15 minute/minutes. Form: All forms
STEL: 100 ppm 15 minute/minutes. Form: All forms
TWA: 246 mg/m³ 8 hour(s). Form: All forms
TWA: 50 ppm 8 hour(s). Form: All forms

Cobalt bis(2-ethyl hexanoate)

EH40-MEL (United Kingdom (UK), 5/2003).
TWA: 0.1 mg/m³ 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 assesment of the actual exposure situation.

9. Physical and chemical properties

Physical state : Liquid. (Clear.)
Colour : Red / Brown.
Odour : Characteristic.
Flash point : 31 °C (estimate)
Lower explosion limit : Not available.
Upper explosion limit : Not available.
Density (g/cm³) : 1.1 g/cm³ (23°C)
Viscosity : 180 to 200 mPa.s (180 to 200 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))
2-phenylpropene	LD ₅₀	Rat	Oral	4900 mg/kg
	LD ₅₀	Mouse	Oral	4500 mg/kg
	LC ₅₀	Guinea pig	Inhalation	3000 ppm (6 hour (s))
Solvent naphtha (petroleum), light arom. A complex combination of hydrocarbons obtained from distillation of aromatic streams. It consists predominantly of aromatic hydrocarbons having carbon numbers predominantly in the range of C8 through C10 and boiling in the range of approximately 135 °C to 210 °C (275 °F to 410 °F).	LD ₅₀	Rat	Oral	8400 mg/kg
	LD ₅₀	quail	Oral	>2150 mg/kg

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
2-phenylpropene	Pimephales promelas (LC ₅₀)	96 hour(s)	29 mg/l
	Leuciscus Idus (LC ₅₀)	96 hour(s)	10 mg/l

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

Ingredient name	LogP _{ow}	Bio-concentration factor	Bioaccumulative potential
Styrene	3.02	-	high

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

General information

UN number : 1866
 Proper shipping name : Resin solution, flammable
 Class : 3
 Label : 3



Packing group : III

Land - road/railway [ADR/RID]

Tremcard code : 30GF1-III
 Hazard identification number : 30

Sea [IMDG]

Marine pollutant : Not a pollutant.
 Emergency schedules (EmS) : F-E: S-E

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

Additional warning phrases : Contains (Cobalt bis(2-ethyl hexanoate)). May produce an allergic reaction.

16. Other information

Full text of R phrases referred to in sections 2 and 3 - United Kingdom (UK) : R10- Flammable.
R20- Harmful by inhalation.
R65- Harmful: may cause lung damage if swallowed.
R36/37- Irritating to eyes and respiratory system.
R36/38- Irritating to eyes and skin.
R37- Irritating to respiratory system.
R38- Irritating to skin.
R43- May cause sensitisation by skin contact.
R66- Repeated exposure may cause skin dryness or cracking.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications referred to in sections 2 and 3 - United Kingdom (UK) : Xn - Harmful
Xi - Irritant
N - Dangerous for the environment.

Internal code : 014015WW27925

History

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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.