

Safety Data

BULLETIN No. 13

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

Product Name and/or Code: 2% and 6% wax solution in styrene

Refer to product label for more information

Intended use: Additives for polyester resins and gelcoats

Refer to product Technical Information Bulletin for more information

Supplied by: K & C Mouldings (Eng) Ltd, Spa House, Shelfanger, Diss, Norfolk, IP22 2DF

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health hazard within the meaning of the Dangerous Substances

Directive 67/548/EEC

Names

Conc. (%)

Symbol

R phrases

Styrene

90-100

R-10, 20, 36/38

3. HAZARDS INDENTIFICATION OF THE PREPARATION

Flammable

R-20:

Harmful by inhalation

R-36/38:

Irritating to eyes and skin

4. FIRST AID MEASURES

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

Remove to fresh air, keep patient warm and at rest, if breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Seek medical advice.

Skin Contact:

Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion:

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.



5. FIRE-FIGHTING MEASURES

Extinguishing Media: Recommended:

alcohol resistant foam, CO2, powders, water spray

Not to be used:

Waterjet

Recommendations: Fire will produce dense black smoke. Exposure to decomposition products may cause a heath hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not allow run-off from fire-fighting to enter drains or watercourses.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Avoid breathing vapour. Refer to protective measures listed in section 7 and 8. Contain and collect spillage with non-combustible materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Do not allow to enter drains or watercourses.

Clean preferably with detergent; avoid use of solvents.

If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations. In the UK the Local Water Authority, and the Environment Agency must be informed.

7. HANDLING AND STORAGE

Handling

The vapour is heavier than air and may spread along floors. Vapour may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational limits.

Additionally, the products should only be used in areas from which naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep containers tightly closed. Isolate from sources of heat, sparks and open flame.

Non-sparking tools should be used.

Avoid skin and eye contact. Avoid inhalation of vapour and spray mist.

Smoking, eating and drinking should be prohibited in application area.

For personal protection see Section 8.

Never use pressure to empty containers. They are not pressure vessels.

Always keep in containers of same material as the original one.

Comply with the health and safety at work Legislation.

Storage

Store in accordance with local regulations.

Observe label precautions. Store in temperatures below 20°C, in a dry, well ventilated place away from sources of heat and direct sunlight.

Keep away from sources of ignition. Keep away from oxidizing agents, strongly alkaline materials and strongly acidic materials.

No smoking. Prevent unauthorised access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

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 vapour below the OEL, suitable respiratory protection must be worn.

Exposure Limits

Occupational exposure limit (OEL)

STEL (1) 250 ppm

MEL (2) 100 ppm

(1) Short term exposure limit

(2) Maximum exposure limit (MEL), time weighted average exposure limit, but with a duty to reduce as low as possible.

Personal Protection

Respiratory protection:

Full face or half-mask, with filter, suitable for organic vapour.

When spraying or working at high concentrations, use self-contained breathing apparatus.

Hand protection:

For prolonged or repeated contact, use resistant gloves of polyvinylalcohol, ethylene-vinylalcohol or Teflon. Barrier creams may help to protect the exposed area of skin, they should however, not be applied once exposure has occurred.

Eye Protection

Use safety eyewear designed to protect against splash of liquids.

Skin Protection

Personnel should wear antistatic clothing made of natural fibre or of high temperature resistant synthetic fibre. All parts of the body should be washed after contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:

liquid

Flash point:

32°C

Method: B.S. 3900 Part A9: 1986

Viscosity

10-30cps

Method: ISO 2884-1974

Specific gravity: Vapour density: $0.9-0.95/\text{cm}^3$ 3.6 (styrene), (air = 1) Method: ASTM D 2196-86 Method: ISO 2811 – 1974

Lower explosive limit:

1.10 (styrene) LEL 1.1 Vol %

Solubility in water:

immiscible

10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions. (See Section 7). When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

11. TOXICOLOGICAL INFORMATION

There is no data available on the preparation itself.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limits may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver, and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. The liquid splashed in the eyes may cause irritation and reversible damage.

Styrene: LD50 (oral rat): 500mg/kg

(Ref. Sax/Lewis: "Dangerous Properties of Industrial Materials)



12. ECOLOGICAL INFORMATION

There is no date available on the preparation itself.

The product should not be allowed to enter drains or watercourses.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or watercourses. Wastes and emptied containers should be handled according to local regulations. In the UK the Environmental Protection Act, 1990, applies. Advice should be sought from the Local Authority regarding disposal of resins, containers and other contaminated waste.

14. TRANSPORT INFORMATION

Transport in accordance with UK Legislation.

The Carriage of Dangerous Goods by Road Regulations, 1996.

Carriage of Dangerous Goods (Classification, Packaging and Labelling) and use of Transportable Pressure Receptacles Regulations, 1996.

RID for rail and IMDG for sea.

IMDG:

Class 3.3 SIN. 2055

Proper shipping name: styrene monomer

Label: 3

Marine pollutant: yes EmS: 3-07 MFAG: 310

Packaging group:

111

15. REGULATORY INFORMATION

In accordance with 88/379/EEC the product is labelled as follows:

Danger classification:		Harmful
Contains:		Styrene
R phrases:	R-10	Flammable
	R-20	Harmful by inhalation
	R-36/38	Irritating to eyes and skin
S Phrases:	S-2	KEEP OUT OF REACH OF CHILDREN
	S-23	Do not breathe vapour/spray
	S-26	In case of contact with eyes, rinse immediately with
		plenty of water and seek medical advice.
and the second section is	S-38	In case of insufficient ventilation, wear suitable respiratory equipment
	S-51	Use only in well ventilated areas

16. OTHER INFORMATION

The information in this Bulletin is provided to users to ensure that the product is used safely and in conjunction with the Product Technical Information Bulletin, is used effectively. The information is given to the best of our knowledge and is based on laboratory tests and practical experience. Polyester Resins and Gelcoats are often used under conditions outside our control and we therefore cannot accept any liability for the performance of our products or for any claims in respect thereof arising out of the use of the products other-than as a result of our negligence. It is our policy to continually improve our products and therefore the information given in this Bulletin is liable to modification.