



Material Safety Data Sheet

Lilly Industries, Inc.

85-X3 SURFACING AGENT

MSDS No.

Not available.

1. Product and Company Identification

Product Trade Name	85-X3 SURFACING AGENT	Validation Date	1 July 2000
Synonyms	85-X3 SURFACING AGENT 85-X3 SURFACING AGENT	Product Code	5788C90035YF
Chemical Family	Not available.	Internal Code	Not available.
Packaging	Not available.		
Product Type	Not available.		
Product Use	Not available.	Description	SURFACING AGENT
Manufactured/ Supplied	LILLY - ELKHART 28335 CLAY ST. ELKHART IN 46517 Daytime Phone: 219-522-1062 Emergency Phone: 800-424-9300		

2. Composition and Information on Hazardous Ingredients

<u>Ingredient Name</u>	<u>CAS #</u>	<u>% by Weight</u>	<u>Exposure Limits</u>	<u>Vapor Pressure</u>	<u>LEL-UEL</u>
1) STYRENE MONOMER	100-42-5	70-100	TWA 20 ppm from ACGIH (United States, 1994). Additional Hazards: Skin STEL 40 ppm from ACGIH (United States, 1994). Additional Hazards: Skin TWA 50 ppm from OSHA (United States, 1989). STEL 100 ppm from OSHA (United States, 1989). CEIL 200 ppm from OSHA (United States, 1989). TWA 50 ppm from NIOSH (United States, 1994). STEL 100 ppm from NIOSH (United States, 1994).	1.3 kPa (@ 20°C)	Not available.

Note: See section 8 for occupational exposure limits and section 11 for LC50/LD50 information.

3. Hazards Identification

Primary Hazards and Critical Effects	: WARNING! CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: LUNGS, LIVER, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA. FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE HARMFUL IF INHALED. MAY CAUSE EYE AND SKIN IRRITATION. POSSIBLE CANCER HAZARD CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA. Risk of cancer depends on duration and level of exposure. Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Physical/Chemical hazards	: Not applicable.
Human Health Hazards	: Harmful by inhalation. Irritating to eyes and skin.
Environmental Hazards	: Not applicable.

4. First Aid Measures

- Eye contact** : Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.
- Skin contact** : Wash with soap and water. Remove contaminated clothing and shoes. If irritation persists, seek medical attention.
- Inhalation** : Remove to fresh air. If not breathing, administer artificial respiration and seek medical attention.
- Ingestion** : Wash out mouth with water if person is conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician. Seek immediate medical attention.

5. Fire-Fighting Measures

- Extinguishing Media** : In case of fire, use water spray (fog), foam, dry chemical, or CO₂. Use foam or all purpose dry chemicals to extinguish.
- Fire-Fighting Procedures** : Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Fire/Explosion Hazards** : Flammable liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
- Hazardous Decomposition Products** : carbon oxides (CO, CO₂).

6. Accidental Release Measures

- Personal Precautions** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5). Do not touch or walk through spilled material.
- Environmental Precautions and Clean-up Methods** : If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways.

Note: See section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and Storage

- Handling** : Risk of cancer depends on duration and level of exposure. Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
- Packaging Materials** : Use original container.

8. Exposure Controls and Personal Protection

Occupational Exposure Limits

1) STYRENE MONOMER

TWA 20 ppm from ACGIH (United States, 1994). Additional Hazards: Skin
 STEL 40 ppm from ACGIH (United States, 1994). Additional Hazards: Skin
 TWA 50 ppm from OSHA (United States, 1989).
 STEL 100 ppm from OSHA (United States, 1989).
 CEIL 200 ppm from OSHA (United States, 1989).
 TWA 50 ppm from NIOSH (United States, 1994).
 STEL 100 ppm from NIOSH (United States, 1994).

- Engineering Controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.
- Monitoring Methods and References** : Not available.
- Personal Protective Equipment**

Respiratory System	: Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator. If necessary Be sure to use a MSHA/NIOSH approved respirator or equivalent.
Skin and Body	: Wear appropriate protective clothing to prevent skin contact.
Hands	: Use chemical resistant, impervious gloves. If necessary
Eyes	: Safety goggles are considered minimum protection.

9. Physical and Chemical Properties

Physical State and Appearance	: Liquid.
Color	: Not available.
Odor	: Not available.
pH	: Not applicable.
Molecular Weight	: Not applicable.
Molecular Formula	: Not applicable.
Melting Point	: May start to solidify at -30.9997°C (-23.8°F) based on data for: STYRENE MONOMER.
Boiling Point	: The lowest known value is 127°C (261°F) (STYRENE MONOMER).
Evaporation Rate	: 0.5 (STYRENE MONOMER) compared to Butyl Acetate
Volatility	: Not available.
Vapor Density	: The highest known value is 4 (Air = 1) (STYRENE MONOMER).
Vapor Pressure	: The highest known value is 10 mm of Hg (@ 20°C) (STYRENE MONOMER).
Density	: The only known value is 0.909 g/cm ³ (STYRENE MONOMER).
Specific Gravity	: Weighted average: 0.89 (Water = 1)
Solubility	: Insoluble in cold water.
Partition Coefficient (LogKow)	: Not available.
Viscosity	: Not available.
Auto-Ignition Temperature	: The lowest known value is 490°C (914°F) (STYRENE MONOMER).
Flash Point	: The lowest known value is CLOSED CUP: 31.111°C (88°F). OPEN CUP: 31°C (88°F). (STYRENE MONOMER)
Explosibility	: Not available.
Explosion Limits	: Not available.

10. Stability and Reactivity

Stability	: The product is stable.
Conditions and Materials to Avoid	: Reactive with oxidizing agents, acids. The product may undergo hazardous decomposition, condensation or polymerization. It may react violently with water to emit toxic gases or it may become self-reactive under conditions of shock or increase in temperature or pressure.
Hazardous Decomposition Products	: The products of degradation are less toxic than the product itself.
Hazardous Polymerization	: Yes.

11. Toxicological Information

Toxicity Data

<u>Inгредиент Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
1) STYRENE MONOMER	LD50	2650 mg/kg	Oral	Rat
	LD50	316 mg/kg	Oral	Mouse

Routes of Entry : Dermal contact. Eye contact.

Acute Effects

Inhalation	: Harmful by inhalation.
Ingestion	: Practically non-toxic if swallowed.
Skin Contact	: Moderately irritating to the skin.

Eye Contact	: Moderately irritating to the eyes.
Chronic Effects	
Adverse Effects	: Not available.
Target Organs	: Contains material which causes damage to the following organs: lungs, liver, skin, central nervous system (CNS), eye, lens or cornea.
Carcinogenic Effects	: Classified 2B (Possible for human,) by IARC [STYRENE MONOMER]. Classified A4 (Not classifiable for human or animal,) by ACGIH [STYRENE MONOMER].
Mutagenic Effects	: Not available.
Developmental and Teratogenic Effects	: Not available.
Reproductive Effects	: Not available.
Other Information	: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

12. Ecological Information

Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Our database contains no special consideration on the product			

Environmental Hazards	: No known significant effects or critical hazards.
Environmental Fate	: Not available.

13. Disposal Consideration

Waste Classification	: Not available.
Waste Handling and Disposal	: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information

United States

Shipping Description	: Not available.
Packaging Instruction	: Not available.
Special Provisions	: Not available.
Remarks	: Not available.

Canada

Shipping Description	: Not available.
Regulated Limit	: Not available.
Consumer Commodity	: Not available.
Limited Quantity	: Not available.
Special Provisions	: Not available.
Remarks	: Not available.

15. Regulatory Information

EU Regulations

Hazard Symbol(s)	: Xn
Risk Phrases	: R20- Harmful by inhalation. R36/38- Irritating to eyes and skin.
Safety Phrases	: S2- Keep out of the reach of children. S37- Wear suitable gloves. S48- If swallowed, seek medical advice immediately and show this container or label. S64- If swallowed, rinse mouth with water (only if the person is conscious).

US Regulations

Federal and State Regulations :

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this material.:

STYRENE MONOMER 90%

CERCLA: Hazardous substances.: STYRENE MONOMER: 1000 lbs. (453.6 kg);

HMIS (U.S.A.)

Health	*	2
Fire Hazard		3
Reactivity		2
Personal Protection		X

National Fire Protection Association (U.S.A.)



Consult your supervisor for special handling instructions.

Canadian Regulations

WHMIS :

- CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
- CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).
- CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
- CLASS F: Dangerously reactive material.

Canadian NPRI :

Canadian NPRI: STYRENE MONOMER 90%

Provincial :

No products were found.

16. Other Information

Remarks : Not available.

References : Not available.

Validated on 7/1/2000.

Version : 1.0

Date of Printing : 7/1/2000

Date of Previous Issue

: No Previous Validation

Indicates information that has changed from previously issued version.

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