



**Flexible Lining Systems**

**1-855-545-4900**

9 E Lookerman Street

Dover, DE 19901

## **MATERIAL SAFETY DATA SHEET**

Trade name: Flexible Lining Systems – SLPH-20-A

CHEMICAL FAMILY: ISOCYANATE

TRANSPORTATION EMERGENCY ASSISTANCE / CALL CHEMTREC / 1 (800) 424 – 9300

MANUFACTURER: Flexible Lining Systems  
9 E Lookerman St  
Dover, DE  
19901

### **NFPA HAZARD RATING**

H	2
F	0
R	1
PP	I

DEGREE OF HAZARD: 4=EXTREME 3=HIGH 2=MODERATE 1=SLIGHT 0=INSIGNIFICANT

### **SECTION II (HAZARDOUS SUBSTANCES)**

<b>HAZARDOUS INGREDIENTS</b>	<b>CAS #</b>	<b>ACGIH TLV</b>
Diphenylmethane Diisocyanate	101-68-8	.005 PPM
Polypropylene carbonate	108-32-7	Not Determined

\* THIS CHEMICAL IS SUBJECT TO SARA TITLE III, SECTION 313 REPORTING

### **SECTION III (PHYSICAL DATA)**

BOILING POINT: N/A WEIGHT PER GALLON: 9.41 +0.3 lbs.

% VOLATILE BY VOLUME: No data EVAPORATION RATE (ether=1): No data

VAPOR DENSITY (air=1): 8.5 approx. VAPOR PRESSURE: <0.0003 mmHG @ (20°C/68°F)



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## **SECTION IV (FIRE & EXPLOSION HAZARD DATA)**

**FLASH POINT:** >150°F

**EXTINGUISHING MEDIA:** Foam, CO<sub>2</sub>, dry chemical, halogenated agents.

**SPECIAL FIRE FIGHTING PROCEDURES:** Firefighters must wear self-contained breathing apparatus and full protective clothing to prevent contact with toxic and/or irritating fumes. Do not spray pool fires directly; a stream of water directed into hot, burning liquid can cause frothing.

**UNUSUAL FIRE & EXPLOSION HAZARD:** Contamination of isocyanate component with water will generate carbon dioxide gas with possible pressure build up in confined areas. Incomplete combustion may produce carbon monoxide. It is unlikely that this product will explode due to mechanical impact. Containers may burst under intense heat.

## **SECTION V (HEALTH HAZARD DATA)**

**EFFECTS OF OVEREXPOSURE:** Inhalation of high concentrations may cause isocyanate sensitization. Skin contact can cause severe irritation, possible burns, defatting, and dermatitis. Eye contact causes severe irritation, redness, tearing, and blurred vision.

**EMERGENCY & FIRST AID:** If overcome by vapors, remove to fresh air and if breathing has stopped, give artificial respiration. Eye contact: Flush immediately with water and call a physician as soon as possible. Skin contact: Wash with soap and water and remove contaminated clothing. Ingestion: See a physician as soon as possible.

**PRIMARY ROUTE OF ENTRY:** Dermal or inhalation most likely.

**MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:** Repeated exposure can cause allergic reaction with development of occupational asthma. Long-term exposure to low vapor concentrations may cause chronically progressive pulmonary disease. Repeated skin contact can result in sensitization.

## **SECTION VI (REACTIVITY DATA)**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Heat, sparks, open flame and water contamination.

**INCOMPATIBILITY:** Water, alcohols, liquid chlorine, concentrated oxygen, NaOH, amines,



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alkaline materials and organometallic compounds.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Burning may produce nitrogen oxides, hydrogen cyanide, carbon monoxide and/or carbon dioxide.

**HAZARDOUS POLYMERIZATION:** May occur at elevated temperatures in the presence of alkalies, tertiary amines and metal compounds.

### SECTION VII (SPILL OR LEAK PROCEDURES)

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Remove all sources of ignition. In enclosed areas, cleanup personnel should wear self-contained breathing apparatus. Cover spills with sawdust, vermiculite, or other absorbent material. Add an equal volume of a 6% ammonia solution in water and allow to react for 10 minutes. Collect into open containers and add more solution. Cover loosely to vent carbon dioxide gas generated.  
**WASTE DISPOSAL METHOD:** Dispose in accordance with local, state, and federal regulations.

### SECTION VIII (SPECIAL PROTECTION INFORMATION)

**RESPIRATION PROTECTION:** Use organic vapor canister for low concentrations. Use self-contained breathing apparatus in enclosed areas involving higher vapor concentrations.

**VENTILATION (Local/Mechanical Exhaust):** Explosion proof mechanical equipment capable of keeping vapor concentration below the TLV.

**PROTECTIVE GLOVES:** Chemical resistant neoprene, nitrile-butadiene or butyl rubber gloves.

**EYE PROTECTION:** Safety goggles or face shield.

**OTHER PROTECTIVE EQUIPMENT:** Eye bath & safety shower should be available.

### SECTION IX (SPECIAL PRECAUTIONS & TOXICOLOGICAL PROPERTIES)

**SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING & STORING:** Keep containers closed and store in a cool dry place with adequate explosion proof ventilation. Keep away from heat, sparks, open flame and moisture. Open container should be blanketed with dry nitrogen before resealing if there is no moisture contamination. If water contamination is suspected, do not reseal. Ground equipment to prevent accumulation of static charge.

**TOXICOLOGICAL PROPERTIES:** The International Isocyanate Institute is currently sponsoring a lifetime study on polymeric MDI in rats for carcinogenicity. Monomeric MDI is positive for mutagenicity in the Ames assay. Oral LD50 (rats) is greater than 15800 mg/Kg. Dermal LD50 (rabbits) is greater than 7900 mg/Kg. Inhalation LC50 (rats - 2hr) is greater than



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400 mg/M<sup>3</sup> on dust of monomeric MDI. Harmful or fatal if swallowed. Vapor harmful. May cause skin or eye irritation.