

Date Prepared: 07/24/06
Supersedes: 08/15/02
Product Name: FormLak^{HS}

ChemMasters

MATERIAL SAFETY DATA SHEET

1. Chemical Product and Company Information

Product Name: FormLak^{HS}

Product Description: FormLab is a unique polymer form release and coating for most types of rigid concrete forms.

ChemMasters
300 Edwards Street
Madison, Ohio 44057
440-428-2105

In Case of Emergency Contact:
CHEMTREC 800/424-9300

2. Hazards Identification

WARNING!

FLAMMABLE LIQUID

Harmful if inhaled or swallowed

Causes irritation of eyes, skin and respiratory tract

WHMIS Classification: Class D2B & B3 (Toxic & Flammable)

Symbol: Stylized T & Flammable

Potential Health Hazards - Acute

Eye: Causes eye irritation. Direct contact with the liquid or exposure to its vapors may cause burning, tearing and redness. Effects of contact may not show for several hours.

Skin: May cause irritation. Prolonged or repeated exposure may cause redness and burning, drying and cracking of the skin and dermatitis. Persons with preexisting skin disorders may be more susceptible to the effects of this material.

Inhalation: Harmful if inhaled. May effect the brain or nervous system causing dizziness, headache or nausea. Can irritate the nose and throat. May cause allergic respiratory reaction similar to an asthma attack. Persons with impaired lung function or respiratory disorders may be more susceptible to vapors.

Ingestion: Harmful if swallowed. Liquid is moderately toxic; may produce CNS depression. May result in vomiting. Aspiration of vomitus into the lungs must be avoided as even small quantities may result in aspiration pneumonitis.

Potential Health Effects - Chronic

Intentional abuse, misuse or other massive exposure may cause multiple organ damage and/or death. See Section 11 for supplemental information.

Carcinogenicity:	NTP	IARC Monographs	OSHA Regulated
TDI	YES	YES	YES

3. Composition / Information on Ingredients

Hazardous Components	CAS #	Exposure Limits			% by Wt
		OSHA(PEL/TWA)	ACGIH (TLV/TWA)	OTHER	
Xylene	1330-20-7	100 ppm	100 ppm	—	25%
2-Ethoxyethanol Acetate	111-15-9	100 ppm	100 ppm	—	5%
Ethyl Benzene	100-41-4	100 ppm	100 ppm	—	5%
Toluene Diisocyanate (TDI)	26471-62-5	0.02 ppm (ceiling)	0.005 ppm	—	<1%
ParachloroBenzotrifluoride	98-56-6	Manufacturer Recommended Exposure Limit 25ppm			<1%

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4. First Aid Measures

Eye: Immediately flush with plenty of clean water. Get medical attention.

Skin: Remove contaminated clothing. Clean affected area(s) thoroughly with soap and water.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

Ingestion: Seek medical attention! Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

SEEK MEDICAL ATTENTION IF SYMPTOMS PERSIST.

5. Fire Fighting Measures

Flash Point (method used): 90°F (SETA Closed Cup)

Flammable Limits (% volume in air): **Lower** = No data available **Upper** = No data available

Auto Ignition Temperature: No data available

Extinguishing Media: Extinguish with water fog, dry chemical, CO₂ or foam. Water fog may cause frothing and should be applied carefully.

Hazard Combustion Products: Carbon monoxide, carbon dioxide, nitrogen oxides, diisocyanates, hydrogen cyanide and volatile organic fractions.

Fire Fighting Instructions: Flammable. Closed containers may rupture violently when exposed to heat. Toxic and /or irritating vapors may be released during a spill. Combustion by products may be hazardous. Product will react with water. Use water only to cool containers or to disperse vapors. Reaction is not violent. Do not enter confined fire space without full bunker gear including a positive pressure, NIOSH approved, self-contained breathing apparatus.

6. Accidental Release Measures

Spill: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Avoid personal contact. If spill is indoors, ventilate area. Keep out of drains, sewers or waterways. Take up with absorbent material, place into non-leak containers and seal tightly for proper disposal.

7. Handling and Storage

Handling: Flammable. Static electricity may create a fire hazard. Always ground equipment and transfer containers. Keep liquid away from heat, sparks and flame. "Empty" containers can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. Do not pressurize drums to empty them. Avoid inhalation of vapors and personal contact with product. Use only with adequate ventilation.

Storage: Store containers tightly closed with adequate ventilation in a cool, dry area.

8. Exposure Controls / Personal Protection

Exposure Controls: Mechanical and local exhaust should be used for indoor use.

Personal Protection: Interior: NIOSH approved organic solvent respirator, impervious gloves, chemical splash goggles, and protective clothing to minimize skin contact. Exterior or well ventilated areas with local exhaust: NIOSH approved organic solvent resistant respirator is not required.

9. Physical and Chemical Properties

Appearance: Clear liquid of medium viscosity

Odor: Xylene odor

Boiling Range: Not Applicable

Melting Point: Not applicable

Vapor Pressure (mm/Hg): No data available

Vapor Density (Air = 1): Heavier than Air

Solubility in Water: Negligible (<5%)

% Volatile By Volume: 40

VOC: 3.59 lb/gal less water & NPRS (431 g/l less water)
Calculated

VOC: 5.30 lb/gal Solids (636 g/l solids)
Calculated

Evaporation Rate (n-Butyl Acetate = 1): Slower than diethyl ether

Specific Gravity (H₂O = 1): 1.1

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10. Stability and Reactivity

Chemical Stability: Stable

Conditions to Avoid: Heat, sparks and flame

Incompatibility (materials to avoid): Strong oxidizing agents, alcohols, corrosives, amines, surface active material, water and heat.

Hazardous Decomposition or By-products: Thermal decomposition may yield carbon monoxide, carbon dioxide, oxides of nitrogen, diisocyanates and hydrogen cyanide.

Hazardous Polymerization: Will not occur

11. Toxicological Information

Xylene in high concentrations has resulted in hearing loss in laboratory rats. Intentional abuse of xylene vapors has been linked to damage of brain, liver, kidney and death in addition to cardiac effects in humans.

Toluene diisocyanate (TDI) has been designated a potential carcinogen by the National Toxicology Program and IARC. This decision is based on NTP study suggesting that TDI given directly through a tube into the stomach (oral gavage technique) caused an increase in tumors in laboratory animals.

Components	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 (rat)
Xylene	4.3 g/kg	4.0 g/kg	6700 ppm/4 hours
Toluene Diisocyanate	4130 mg/kg	—	600 ppm/6 hours

12. Ecological Information

Possible land, air and water pollutant. No exact data available.

13. Disposal Considerations

Dispose of in accordance with all federal, state, and local regulations. If uncertain of local requirements, contact the proper environmental authorities for information on waste disposal in your area.

Under RCRA 40 CFR 261 this material is hazardous waste number D001.

14. Transportation Information

For U S, International, and Air Shipments:

Shipping Description: Resin Solution, 3, UN1866, III

Emergency Response Guide Number: 127

Hazard Class: Flammable Liquid

15. Regulatory Information

OSHA: This material is hazardous by definition of Hazardous Communications Standard (29 CFR 1910.1200)

CERCLA Reportable Quantity: 233 gallons or 1,864 lbs

SARA Title III:

Section 311/312 hazard categories: acute health, delayed health, fire

Section 313 reportable ingredients:

	Components	CAS #	Maximum %
	Xylene	1330-20-7	25 %
	Toluene Diisocyanate	26471-62-5	<1%
	Ethyl Benzene	100-41-4	5%
	2-Ethoxy Ethanol Acetate	111-15-9	5%

Proposition 65: This product contains 2,4 Toluene Diisocyanate; 2-Ethoxy Ethanol Acetate; Chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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16. Other Information

MSDS Status: Revised entire
Industrial Abbreviation Legend follows on page 4 of this MSDS.

Industrial Abbreviation Legend

ACGIH	American Conference of Governmental Industrial Hygienists	mg / m ³	milligrams per cubic meter
C A A	Clean Air Act (EPA)	NIOSH	National Institute for Occupational Safety and Health
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act of 1980 (Superfund) (EPA)	NTP	National Toxicology Program
CNS	Central Nervous System	O S H A	Occupational Safety and Health Administration
C W A	Clean Water Act (EPA)	PEL	Permissible Exposure Limit
DOT	Department of Transportation	ppm	parts per million
EPA	Environmental Protection Agency	R C R A	Resource Conservation and Recovery Act (EPA)
g/kg	grams per kilogram	SARA	EPA's Superfund Amendment and Reauthorization Act (EPA)
IARC	Internal Agency for Research on Cancer	STEL	Short-Term Exposure Limit, ACGIH terminology
LC50	Lethal Concentration in which 50% of the test animals are expected to die	TLV	Threshold Limit Value
LD50	Lethal Dose in which 50% of the test animals are expected to die	T W A	Time-Weighted Average

THIS PRODUCT IS FORMULATED AND LABELED FOR INDUSTRIAL AND COMMERCIAL APPLICATION ONLY

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