

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product Identifier

Product Name XL-100

Other means of identification

Product Code XL-100
Product Description Isocyanate Crosslinker

Recommended use of the chemical and restrictions on use

Recommended Use: Water-borne coatings; Crosslinking Agent
Uses advised against: No information available

Details of the supplier of the safety data sheet

Manufacturer

Leather Refinishing Technologies
 529 Caboose Drive
 Quakertown, PA 18951 USA

Emergency Telephone Number

Company Phone Number (215) 536-0625
Emergency Telephone Number (267) 228-5682

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Respiratory sensitization **Category 1**
Skin sensitization **Category 1**
Flammable liquids **Category 4**

Label Elements

Emergency Overview

Hazard statements

May cause allergy or asthma symptoms or breathing difficulties if inhaled
 May cause an allergic skin reaction

Combustible liquid

Appearance Translucent **Physical State** Liquid **Odor** Slight

Hazards not otherwise classified (HNOC)

Not applicable

Other information

Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in well-ventilated area
 In case of inadequate ventilation wear respiratory protection
 Contaminated work clothing must not be allowed out of workplace
 Keep away from flames and hot surfaces. No Smoking
 Wear protective gloves/eye protection/face protection
 Keep Cool

Precautionary Statements-Response

Specific treatment (see first aid on this label)

IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothes before reuse

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

In case of fire: Use CO2,dry chemical ,or foam to extinguish

Precautionary Statements-Storage

Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements: Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Info

Unknown Acute Toxicity 79.76 of mixture consists of ingredient(S) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	Crosslinker			
Chemical characterization	Mixture /			
Chemical nature	Mixture of organic compounds			
Chemical name	CAS-NO	Weight%	Trade Secret	
Benzenesulfonyl isocyanate, 4-methyl-	4083-64-1	.30	*	
Hexamethylene diisocyanate	822.06.0	.24	*	

4. FIRST AID MEASURES

First aid measures

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists: Get medical advice and or attention.

Skin Contact

Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.

Inhalation

Remove to fresh air. If system persist, call a physician. Move to fresh air in case of accidental inhalation of vapours or decomposition products.

Ingestion

If sprayed in mouth, rinse mouth several times with water. Never give anything by mouth to an unconscious person. If accidentally swallowed obtain immediate medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms

No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically. May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Alcohol-resistant foam. Dry chemical. Carbon dioxide (CO2). Use: Water Spray.

Unsuitable Extinguishing Media

Water. Cool containers/tanks with water spray. Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Combustible material. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire/or explosion do not breathe fumes. Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

Explosion data

Sensitivity to Mechanical Impact No.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective bunker gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment. Avoid contact with skin and the eyes. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static.

Other information : DO NOT GET WATER on spilled substance or inside containers.

Environmental precautions

Environmental precautions Prevent product from entering drains, sewers or water courses. Do not allow material to contaminate ground water system.

Methods and material for containment and cleaning up

Methods for Containment Contain spill with inert material (e.g. sand, silical gel, universal binder).

Methods for cleaning up Pick up and transfer to properly labelled containers. Dispose waste product in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Wear personal protective equipment. Use only in area provided with appropriate exhaust ventilation. Do not breathe vapors or spray mist. Keep away from heat, sparks and open flame. No smoking.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep out of reach of children. Keep container tightly closed in a cool, well ventilated place. Store in original container.

Packaging Material Unsuitable material: Polystyrene, Copper, Tin.

Incompatible Products: Strong oxidizing agents. Strong acids. Strong bases. Alcohols. Amines. Water

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical name

Hexamethylene diisocyanate	ACGIH TLV	OSHA	NIOSH IDLH
822-06-0	TWA: 0.005 PPM	-	-

Other Exposure Guidelines As a rule, at least 10 air changes per hour are recommended at the workplace.

Appropriate engineering controls

Engineering Measures Eyewash stations; Ensure adequate ventilation, especially in confined areas. Showers

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses with side-shields.

Skin and body protection Wear protective gloves and protective clothing. Long sleeved clothing.

Respiratory protection If exposure limits are exceeded or irritation is experienced from spray or mists, a NIOSH / MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory

protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Clear	Odor	Slight to negligible
Color	Colorless	Odor threshold	No information available
pH	7.5 - 9.0		
Melting point/freezing point	Not applicable		
Boiling Point/Range	140 °C / 284 °F		
Flash Point	86 C / 187 F		
Specific gravity	1.14		
Water solubility	Dispersible		
Kinematic viscosity	No information available		
Dynamic viscosity	300 cPs		
Explosive properties	Not applicable.		
Oxidizing properties	No information available.		

Other information

VOC Content(%)	~.24
Density	~ 9.49 pounds / gallon

10. STABILITY AND REACTIVITY

Reactivity

No dangerous reactions known under conditions of normal use.

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing. Alcohols; Amines; Strong oxidizing agents.

Conditions to Avoid

Temps over 140C Excessive heat, sparks and color contaminating debris

Incompatible materials

Strong oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to releaser of irritating gases and vapours.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye contact	Irritating to eyes
Skin Contact	Irritating to skin.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Benzenesulfonyl isocyanate 4083-64-1	=2234 mg/kg	-	640 ppm (rat) 1 h
Hexamethylene diisocyanate	710 mg/kg (rat)	= 593 mg/kg Rabbit	=0.06 mg/L (rat) 4 h

822-06-0

Information on toxicological effects

Symptoms None known and no information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Mechanical irritation of the eyes is possible.
Sensitization No information available.
Mutagenicity No information available.
Carcinogenicity No component of this product is present at levels greater than or equal to 0.1% is listed with NTP, IARC or OSHA.
Reproductive Effects None known.
Developmental Toxicity None known.
Teratogenicity None known.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Neurological Effects None known.
Aspiration Hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 79.76% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATE mix (oral) >5000 mg/kg
ATE mix (dermal) >2000 mg/kg
ATEmix (inhalation-dust/mist) 42 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

80.08% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Chemical Name

Hexamethylene diisocyanate	Alae/aquatic plants	Fish	Crustacea
822-06-0	Not applicable	26.1 mg/l h Brachydanio rerio LC50 static	-

Persistence and degradability

No information available.

Bioaccumulation potential

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods**Waste Disposal Methods**

Can be incinerated, when in compliance with local regulation. Should not be released into the environmental. Dispose of contents/container in accordance with local regulation.

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

US EPA Waste Number

Waste codes should be assigned by the user based on the application for which the product was used.

14. TRANSPORT INFORMATION

<u>DOT</u>	Not regulated for transport < 119 gallons (450 Liters)
<u>ICAO/IATA</u>	Not regulated for transport.
<u>IMDG/IMO</u>	Not regulated for transport.

15. REGULATORY INFORMATION

Global Chemical Inventory Status

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory Complies

Legend:

TSCA Section 8 (b): All components are listed on or exempt from TSCA inventory.

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	Yes

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

Hexamethylene diisocyanate 822-06-0	Hazardous substances RQs 100 lb	Cercla EHS RQs -	RQ RQ 100 lb final RQ RQ 45.4 kg final RQ
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U.S. State Regulations

California Proposition 65

This product contains one or more substances listed on California Proposition 65.

State Right-to-Know

Hexamethylene diisocyanate Massachusetts; New Jersey; Pennsylvania.
822-06-0

16. OTHER INFORMATION

<u>NFPA Hazard Ratings:</u>	Health hazards 3	Flammability 2	Instability 1
<u>HMIS Hazard Ratings:</u>	Health hazards 3	Flammability 2	Physical hazards 1

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Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the

specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

Abbreviation Legend:

ATE – Acute Toxicity Estimate; C - Celsius; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; cPs – Centipoise; DOT - Department of Transportation; EPA - Environmental Protection Agency; F - Fahrenheit; GHS – Global Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; IMO – International Maritime Organization; REL - Recommended Exposure Limits; NFPA - National Fire Protection Association; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; OSHA - Occupational Safety and Health Administration; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; SDS – Safety Data Sheet; STEL - Short-term Exposure Limit; STOT – Specific Target Organ Toxicity; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; WHMIS - Health Canada Workplace Hazardous Materials Information System

End of Safety Data Sheet