Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **876-9038 LUSTRATE II HARDENER**

Supplier - Manufacturer Chemcraft International Inc.,

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Canada L1A 3Z3

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For Transport Emergency or After Hours

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Code	876-9038
Synonym	LUSTRATE II HARDENER
Chemical Name	Not applicable.
Chemical Family	Synthetic polymer in organic solvent. (Paint.)
Chemical Formula	Not applicable.
Material Uses	Coatings: Surface coatings and finishes.
Product Identification Number (PIN)	1263 PAINT

Section 2. Hazardous Ingredients

			Exposure Limits	
Name	**CAS #**	**% by Weight**	**LC_{50}/LD_{50}**	**TLV/PEL**
Polymeric isocyanate		33.32	Not available.	Not available.
Toluene diisocyanate	26471-62-5	0.14	Not available.	**ACGIH (Canada).** TWA: 0.005 ppm STEL: 0.02 ppm
Hexamethylene diisocyanate	822-06-0	0.172	ORAL (LD50): Acute: 350 mg/kg [Mouse]. 768 mg/kg [Rat]. DERMAL (LD50): Acute: 617 mg/kg [Rabbit].	**ACGIH (Canada).** TWA: 0.005 ppm
n-Butyl acetate	123-86-4	63.65	ORAL (LD50): Acute: 14130 mg/kg [Rat]. 7100 mg/kg [Mouse]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit]. 8770 mg/kg [Guinea pig].	**OSHA (Canada).** TWA: 150 ppm STEL: 200 ppm **ACGIH (Canada, 2000).** TWA: 150 ppm STEL: 200 ppm
Hexamethylene diisocyanate homopolymer	28182-81-2	1.468	ORAL (LD50): Acute: >10000 mg/kg [Rat]. DERMAL (LD50): Acute: >5000 mg/kg [Rabbit].	Not available.
p-Toluenesulfonyl isocyanate	4083-64-1	1	ORAL (LD50): Acute: 2600 mg/kg [Rat].	**ACGIH (Canada).** TWA: 5 ppb CEIL: 20 ppb

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

Continued on Next Page

Section 3. Physical Data

Physical State and Appearance	Liquid.
Color	Not available. **Odor** Not available. **Taste** Not available.
Molecular Weight	Not applicable.
pH (1% soln/water)	Not applicable.
Boiling Point	The lowest known value is 126.5°C (259.7°F) (Acetic Acid, Butyl Ester). Weighted average: 128.83°C (263.9°F)
Melting Point	May start to solidify at -1°C (30.2°F) based on data for: Benzenesulfonyl isocyanate, 4-methyl-. Weighted average: -76.71°C (-106.1°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.95 (Water = 1)
Vapor Pressure	The highest known value is 1e-005 kPa (7e-005 mmHg) (at 20°C) (Hexane, 1,6-diisocyanato-, homopolymer).
Vapor Density	The highest known value is 4 (Air = 1) (Acetic Acid, Butyl Ester).
Volatility	Not available.
Odor Threshold	The lowest known value is 0.04 ppm (Acetic Acid, Butyl Ester)
Water/Oil Dist. Coeff.	The product is more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Is not dispersed in cold water, hot water. See solubility in methanol, diethyl ether, n-octanol.
Solubility	Easily soluble in methanol, diethyl ether. Partially soluble in n-octanol. Insoluble in cold water, hot water.

Section 4. Fire and Explosion Hazard

The Product is:	Flammable.
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames, sparks and static discharge, of heat.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Special Remarks on Fire Hazards	Vapor may travel considerable distance to source of ignition and flash back. (Acetic Acid, Butyl Ester)
Flash Points	The lowest known value is Closed cup: 27°C (80.6°F). (Tagliabue.). (Acetic Acid, Butyl Ester)
Flammable Limits	Not available.
Auto-Ignition Temperature	The lowest known value is 407°C (764.6°F) (Acetic Acid, Butyl Ester).
Products of Combustion	These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...), sulfur oxides (SO2, SO3...).
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Highly explosive in presence of open flames, sparks and static discharge.
Special Remarks on Explosion Hazards	Not available.

Section 5. Reactivity Data

Stability	Unstable. (Benzenesulfonyl isocyanate, 4-methyl-)
Decomposition products	Not available.
Conditions of Instability	High heat and moisture. (Benzenesulfonyl isocyanate, 4-methyl-)
Incompatibility with various substances	Reactive with oxidizing agents, reducing agents, acids, alkalis, moisture. Slightly reactive to reactive with organic materials.
Corrosivity	Not available.

Continued on Next Page

Special Remarks on Reactivity	Extremely reactive; reacts readily with water, alkalies, amines, alcohols and most acids. (Benzenesulfonyl isocyanate, 4-methyl-)
Special Remarks on Corrosivity	Not available.

Section 6. Toxicological Properties

Routes of Entry	Absorbed through skin. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 2600 mg/kg [Rat]. (Benzenesulfonyl isocyanate, 4-methyl-). Acute dermal toxicity (LD50): 5000 mg/kg [Rabbit]. (Acetic Acid, Butyl Ester). Acute toxicity of the gas (LC50): 18500 mg/m^3 1 hour(s) [Rat]. (Hexane, 1,6-diisocyanato-, homopolymer). Acute toxicity of the vapor (LC50): >1800 ppm 4 hour(s) [Rat]. (Acetic Acid, Butyl Ester).
Effects of Acute Exposure	Very hazardous in case of skin contact (sensitizer). Hazardous in case of eye contact (irritant), of ingestion, of inhalation.
Chronic Effects on Humans	**CARCINOGENIC EFFECTS**: Classified 2B (Possible for human.) by IARC [Benzene, 1,3-diisocyanatomethyl-]. Classified None. by OSHA [Benzene, 1,3-diisocyanatomethyl-]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC [Hexane, 1,6-diisocyanato-]. Classified None. by OSHA [Hexane, 1,6-diisocyanato-]. Classified A4 (Not classifiable for human or animal.) by ACGIH [Benzene, 1,3-dimethyl-]. **MUTAGENIC EFFECTS**: Not available. **TERATOGENIC EFFECTS**: Not available. **DEVELOPMENTAL TOXICITY**: Not available. The substance is toxic to blood, lungs, the nervous system. Repeated or prolonged exposure to the substance can produce target organs damage.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Medical supervision of all employees who handle or come in contact with isocyanates is recommended. These should include preemployment and periodic medical examinations with pulmonary function test (FEV, FVC as a minimum). Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurrant skin aczema or sensitization should be excluded from working with isocyanates. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted. (Polymeric Isocyanate)
Special Remarks on Other Toxic Effects on Humans	Material is irritating to mucous membranes and upper respiratory tract. (Acetic Acid, Butyl Ester)
Exposure Limits	Not available.

Section 7. Preventive Measures

Personal Protection	Splash goggles. Synthetic apron. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Impervious gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. A self contained breathing apparatus should be used to avoid inhalation of the product. Gloves (impervious).
Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Small Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill	Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.
Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Precautions	Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, reducing agents, acids, alkalis, moisture.
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).
TDG Classification	3
PIN	1263 PAINT **PG:** II
Special Provisions for Transport	

Continued on Next Page

Federal and State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, 1,3-diisocyanatomethyl-; Benzene, dimethyl-
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Benzene, 1,3-diisocyanatomethyl-
Illinois toxic substances disclosure to employee act: Benzene, ethyl-
New York release reporting list: Acetic Acid, Butyl Ester; Benzene, 1,3-dimethyl-
New York acutely hazardous substances: Benzene, ethyl-
Rhode Island RTK hazardous substances: Benzene, ethyl-
Pennsylvania RTK: Acetic Acid, Butyl Ester
Florida: Acetic Acid, Butyl Ester; Benzene, ethyl-; Benzene, 1,3-dimethyl-
Minnesota: Acetic Acid, Butyl Ester; Benzene, ethyl-
Massachusetts RTK: Acetic Acid, Butyl Ester; Benzene, ethyl-; Benzene, 1,3-dimethyl-
New Jersey: Acetic Acid, Butyl Ester; Benzene, ethyl-
TSCA 8(b) inventory: Acetic Acid, Butyl Ester; Benzene, dimethyl-
TSCA 5(e) substance consent order: Acetic Acid, Butyl Ester
TSCA 8(d) H and S data reporting: Benzene, ethyl-
TSCA 12(b) annual export notification: Acetic Acid, Butyl Ester
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid, Butyl Ester; Benzene, dimethyl-: Fire Hazard, Immediate (Acute) Health Hazard
SARA 313 toxic chemical notification and release reporting: Benzene, 1,3-diisocyanatomethyl- 0.14%; Benzene, dimethyl- 0.25%
CERCLA: Hazardous substances.: Acetic Acid, Butyl Ester; Benzene, dimethyl-;

Other Regulations

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications

WHMIS (Canada)

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 D-2B: Material causing other toxic effects (TOXIC).

HCS (U.S.A.)

Class: Contains material which may cause cancer.
Class: Flammable liquid having a flash point lower than 37.8°C (100°F).
Class: Target organ effects.

Hazardous Material Information System (U.S.A.)

Health Hazard	*	2
Fire Hazard		3
Reactivity		0
Personal Protection		H

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

Health	2
Fire Hazard	3
Reactivity	2
Specific Hazard	

Section 8. First Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Hazardous Skin Contact

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Hazardous Inhalation

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

Continued on Next Page

Ingestion Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Hazardous Ingestion Not available.

Section 9. Preparation Information

References -Manufacturers Material Safety Data Sheets.

Other Special Considerations Not available.

Related Information This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.

Preparation Information **Validated by D. Gerelus on 8/21/2002.**

Verified by D. Gerelus.

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