

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **000-LNB42 HARDENER**

Supplier - Manufacturer **Chemcraft International Inc.,**
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P.O. Box 458
Port Hope, ON.
Canada L1A 3Z3

Telephone (905) 885-6388 Fax (905) 885-5097

In case of Emergency (905) 885-6388, (800) 263-7951

For Transport Emergency or After Hours

CANUTEC (613) 996-6666

Code 000-LNB42

Synonym 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
Toluene-Diisocyanate	91-08-7	1-5	Not available.	Not available.
Ethyl Acetate	141-78-6	5-10	ORAL (LD50): Acute: 5600 mg/kg [Rat].	ACGIH (Canada). TWA: 400 ppm
Methyl ethyl ketone	78-93-3	30-60	ORAL (LD50): Acute: 3400 mg/kg [Rat]. DERMAL (LD50): Acute: 13000 mg/kg [Rabbit].	TWA: 200 ppm 8 hour(s). STEL: 300 ppm 15 minute(s). CEIL: 300 ppm
Toluene	108-88-3	10-30	ORAL (LD50): Acute: 2600 mg/kg [Rat.]. DERMAL (LD50): Acute: 12210 mg/kg [Rabbit.].	ACGIH (Canada, 1993). TWA: 50 ppm TWA: 188 mg/m ³

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.

Section 3. Physical Data

Physical State and Appearance Liquid.

Color Light. Odor Slight. Taste Not available.

Molecular Weight Not applicable.

pH (1% soln/water) Not applicable.

Boiling Point 79.6°C (175.3°F)

Melting Point -86.667°C (-124°F)

Critical Temperature Not available.

Specific Gravity 0.973 (Water = 1)

Vapor Pressure The highest known value is 10.3 kPa (77.5 mmHg) (at 20°C) (2-Butanone). Weighted average: 7.55 kPa (56.63 mmHg) (at 20°C)

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Vapor Density	The highest known value is 3.14 (Air = 1) (Benzene, methyl-). Weighted average: 2.81 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.25 ppm (2-Butanone)
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Partially dispersed in methanol, diethyl ether. Very slightly dispersed in cold water, hot water. See solubility in methanol, diethyl ether, n-octanol, acetone.
Solubility	Easily soluble in methanol, diethyl ether, acetone. 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.
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. (Benzene, methyl-)
Flash Points	Closed cup: -9°C (15.8°F). (Tagliabue.)
Flammable Limits	The greatest known range is LOWER: 2.2% UPPER: 11% (Acetic Acid, Ethyl Ester)
Auto-Ignition Temperature	The lowest known value is 460°C (860°F) (2-Butanone).
Products of Combustion	These products are carbon oxides (CO, CO ₂).
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	The product is stable.
Decomposition products	Not available.
Conditions of Instability	Reacts violently with water. Reacts very rapidly with compounds containing an active hydrogen, such as amines, alcohols and acids. Polymerizes rapidly in the presence of base. Combustible. Incompatible with strong oxidising agents. (Benzene, 1,3-diisocyanato-2-methyl-)
Incompatibility with various substances	Slightly reactive to reactive with oxidizing agents, acids.
Corrosivity	Not available.
Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Not available.

Section 6. Toxicological Properties

Routes of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 2600 mg/kg [Rat]. (Benzene, methyl-). Acute dermal toxicity (LD50): 12210 mg/kg [Rabbit]. (Benzene, methyl-). Acute toxicity of the gas (LC50): 2000 ppm 4 hour(s) [Rat]. (2-Butanone). Acute toxicity of the vapor (LC50): 8000 ppm 4 hour(s) [Rat]. (Benzene, methyl-).
Effects of Acute Exposure	Hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation.

Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC [Acetic Acid, Ethyl Ester]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, None. by OSHA [2-Butanone]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Inhalation of vapors may cause dizziness, an irregular heartbeat, narcosis, nausea or asphyxiation. (Benzene, methyl-)
Special Remarks on Other Toxic Effects on Humans	Exposure can cause lung irritation, chest pain and oedema which may be fatal. (Benzene, methyl-)
Exposure Limits	Not available.

Section 7. Preventive Measures

Personal Protection	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Chemical resistant gloves, such as Norfoil should be used when handling this product. Please consult a Glove Manufacturer for alternate choices.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Chemical resistant gloves, such as Norfoil should be used when handling this product. Please consult a Glove Manufacturer for alternate choices. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
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 touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.
Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Precautions	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. 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. Avoid contact with skin and eyes.
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	
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, methyl- California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Benzene, methyl- New York release reporting list: Acetic Acid, Ethyl Ester Rhode Island RTK hazardous substances: Acetic Acid, Ethyl Ester Pennsylvania RTK: Acetic Acid, Ethyl Ester Florida: Acetic Acid, Ethyl Ester Minnesota: Acetic Acid, Ethyl Ester Massachusetts RTK: Acetic Acid, Ethyl Ester New Jersey: Acetic Acid, Ethyl Ester TSCA 8(b) inventory: Acetic Acid, Ethyl Ester; Benzene, methyl- TSCA 5(e) substance consent order: Acetic Acid, Ethyl Ester TSCA 12(b) annual export notification: Acetic Acid, Ethyl Ester SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid, Ethyl Ester: Fire Hazard, Immediate (Acute) Health Hazard; 2-Butanone: Fire Hazard, Immediate (Acute) Health Hazard SARA 313 toxic chemical notification and release reporting: 2-Butanone 34.5%; Benzene, methyl- 25% CERCLA: Hazardous substances.: Acetic Acid, Ethyl Ester; 2-Butanone; Benzene, methyl-;

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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-1A: Material causing immediate and serious toxic effects (VERY TOXIC). Class D-2B: Material causing other toxic effects (TOXIC).
	HCS (U.S.A.)	Class: Flammable liquid having a flash point lower than 37.8°C (100°F).
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	0
	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. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
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.
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 C.M. Kelly on 4/29/2003. Verified by C.M. Kelly. Printed 11/21/2003.
Information Contact	Prepared by the Health, Safety and Environment Department, Chemcraft International Inc., P.O. Box 458, 155, Rose Glen Road North, Port Hope, ON, Canada. Phone: 905 885-6388 Fax: 905 885-5097

Notice to Reader

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