

MATERIAL SAFETY DATA SHEET  
FOR COATINGS, RESINS, AND RELATED MATERIALS

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SECTION I - PRODUCT IDENTIFICATION  
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PRODUCT NUMBER: L-2416

PRODUCT NAME: L-2416

PRODUCT CLASS: Waterborne Polyurethane  
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SECTION II - HAZARDOUS INGREDIENTS  
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INGREDIENT(S):	PERCENT:	OCCUPATIONAL EXPOSURE LIMITS:		VAPOR PRESSURE:
		TLV	PEL	
Triethylamine Cas# 121-44-8	1.5	10 ppm (ACGIH)	---	54 mmHg @ 20EC.
N-methyl-2-pyrrolidone Cas# 872-50-4	11.1	100 ppm (ACGIH)	---	<1 mmHg @ 20EC.

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SECTION III - PHYSICAL DATA  
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Evaporation Rate: Faster than Ether  
                          X Slower than Ether

Vapor Density: X Heavier than Air  
                          Lighter than Air

BOILING RANGE: 212EF.

WT/GAL: 8.8 #

NON VOLATILE: 35.0 % Wt.

LBS V.O.C./GAL COATING AS SUPPLIED 1.12  
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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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FLAMMABILITY CLASSIFICATION: OSHA: Combustible Class III-B FLASH POINT: >200EF.  
DOT: Non-regulated material LEL:

EXTINGUISHING MEDIA: X FOAM X CO2 X WATER FOG  
"ALCOHOL FOAM" X DRY CHEMICAL OTHER

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Keep containers tightly closed. Isolate from heat, electrical equipment sparks and open flame. Combustion products are severely irritating to the skin, eyes, nose, and respiratory system.

SPECIAL FIREFIGHTING PROCEDURES:

The use of a SCBA is recommended for fire fighters. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes.

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SECTION V - HEALTH HAZARD DATA

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EFFECTS OF OVEREXPOSURE:

EYE CONTACT:

Vapor may cause irritation and temporary disturbance of vision. Liquid may produce severe irritation experienced as excess redness and swelling of the conjunctiva with chemical burns of the cornea.

SKIN CONTACT:

Prolonged skin contact causes irritation, redness and defatting of the skin. In a dermal exposure with rats, NMP was only embryotoxic at the high dose level; this effect was attributed to maternal toxicity.

INHALATION:

Exposure above the TLV may cause irritation to the respiratory tract, with sneezing, coughing, burning sensation of the throat, constricting sensation of the larynx, and difficulty in breathing. High concentrations may cause damage to the liver, kidney, and heart and may cause tracheitis, bronchitis, pneumonitis, and pulmonary edema. Several inhalation studies in rats did not reveal any indication of maternal toxicity or embryo toxicity. In a two year study, NMP did not cause any life-shortening or carcinogenic effects in rats at 0.04 or 0.4 mg/liter (10 ppm and 100 ppm respectively).

#### INGESTION:

May cause chemical burns of the mouth, throat, and esophagus. Signs and symptoms will include pain or discomfort in the mouth, throat, chest, and abdomen, nausea, vomiting, diarrhea, dizziness, and drowsiness, faintness, weakness, collapse, and coma. In animal studies in rats and mice, NMP was embryotoxic by the oral and intra peritoneal routes at very high dose levels which were close to the LD50.

#### MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE:

Preexisting eye, skin, and respiratory disorders, or preexisting impaired peripheral nerve function may be aggravated by exposure to this product.

PRIMARY ROUTE(S) OF ENTRY: **X** DERMAL **X** INHALATION INGESTION EYE

#### EMERGENCY AND FIRST AID PROCEDURES:

##### EYE CONTACT:

Immediately flush eyes with water for at least 15 minutes. The eyelids must be held open and away from the eyeball to ensure that all surfaces are flushed thoroughly. Seek immediate medical attention, preferably an ophthalmologist.

##### SKIN CONTACT:

Wash affected area(s) with soap and water. Remove and launder contaminated clothing before reuse. If irritation develops, consult a physician.

##### INHALATION:

Remove to fresh air. Give artificial respiration, if not breathing. Oxygen may be given, if necessary. Call a physician.

##### INGESTION:

Rinse mouth with water. Give at least 2 glasses of water or milk at once, if the patient is

conscious. **DO NOT** induce vomiting. Seek immediate medical attention.

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#### SECTION VI - REACTIVITY DATA

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STABILITY: UNSTABLE    **X** STABLE

HAZARDOUS POLYMERIZATION: MAY OCCUR    **X** WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS:

Burning can produce nitrogen oxides, carbon monoxide, and carbon dioxide.

CONDITIONS TO AVOID:

Keep product away from heat, sparks, pilot lights, static electricity, and open flame.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong mineral acids and oxidizers.

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#### SECTION VII - SPILL OR LEAK PROCEDURES

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product out of sewers and watercourses by diking or impounding. Advise authorities, if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable governmental regulations. Continue to observe precautions for volatile, flammable vapors from absorbed material.

WASTE DISPOSAL METHOD:

Dispose of in accordance with local, state and federal regulations

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#### SECTION VIII - SAFE HANDLING AND USE INFORMATION

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#### RESPIRATORY PROTECTION:

Avoid prolonged or repeated breathing of vapors. If exposure may or does exceed occupational exposure limits, use a NIOSH approved respirator to prevent overexposure.

#### VENTILATION:

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section II), additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, systems safe for such locations should be used.

#### PROTECTIVE GLOVES:

The use of gloves impermeable to the specific material handled is advised to prevent skin contact, possible irritation and absorption.

#### EYE PROTECTION:

Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.

#### OTHER PROTECTIVE EQUIPMENT:

It is suggested that a source of clean water be available in work area for flushing eyes and skin. Impervious clothing should be worn as needed.

#### HYGIENIC PRACTICES:

Wash with soap and water.

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### SECTION IX - SPECIAL PRECAUTIONS

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Keep containers tightly closed. Keep containers cool, dry and away from sources of ignition. Use and store this product with adequate ventilation. Avoid inhalation of vapors and personal contact with the product. Use good personal hygiene practice. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks or other sources of ignition; they may explode and cause injury or death. "Empty" containers should be completely drained, properly bunged and promptly shipped to the supplier or a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

OTHER PRECAUTIONS:

For industrial use only.

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SECTION X - REGULATORY INFORMATION

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Contents of this MSDS comply with the OSHA Hazard Communication Standard CFR 1910.1200.

TSCA STATUS:

This product contains a polymer which is exempted from the requirement for listing on the EPA/TSCA Inventory of Chemical Substances in accordance with the provisions of 40 CFR 723.250. The other components of this product are listed on the EPA/TSCA Inventory of Chemical Substances.

EPA SARA TITLE III CHEMICAL LISTINGS:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and CFR Part 372:

<b>CHEMICAL NAME:</b>	<b>CAS NUMBER:</b>	<b>CONCENTRATION:</b>
Triethylamine	121-44-8	1.5 %
N-methyl-2-pyrrolidone	872-50-4	11.1 %

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