



# MATERIAL SAFETY DATA SHEET

## Nu-Foam

### I - PRODUCT IDENTIFICATION

**Company Name:** Nu-Calgon Wholesaler, Inc.  
**Address:** 2008 Altom Court, St. Louis, MO 63146-4151  
**Product Name:** Nu-Foam  
**Synonyms:** Insulating Sealant

**Tel No:** (314) 469-7000, (800) 554-5499  
**CHEMTREC:** (800) 424-9300  
**Product Number:** 4293

### II - HAZARDOUS INGREDIENTS OF MIXTURES

<u>MATERIAL</u>	<u>CAS#</u>	<u>% By Wt</u>	<u>TLV</u>	<u>PEL</u>
Methylene bisphenyl isocyanate**	101-68-8	3-6	.005ppm	0.02 ppm
Polymethylene polyphenyl isocyanate	9016-87-9	41-44	NE*	NE*
Chlorinated Phosphate	13674-84-5	10-12	NE*	NE*
Dimethylether	115-10-6	1-3	NE*	NE*
Propane	74-98-6	3-6	1000 ppm	1000 ppm
Isobutane	75-28-5	7-6	NE*	NE*
Polyether Polyol	Mixture	22-33	NE*	NE*

\* Not established

\*\* This compound is a toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372)  
All ingredients are TSCA listed.

### III - PHYSICAL DATA

**Vapor Pressure:** 82.0 psig @ 70° F  
**Evaporation Rate:** NE\*  
**Solubility in H<sub>2</sub>O:** N/A  
**Freezing Point °F:** NE\*  
**Boiling Point °F:** -43.7 ° F (-42° C)  
**Specific Gravity H<sub>2</sub>O=1 @25° C:** 1.01

**Vapor Density (Air=1) 60-90° F:** Heavier than air  
**VOC Content (% by wt.):** NE\*  
**pH @ Solution:** NE\*  
**pH as Distributed:** NE\*  
**Appearance:** Gel under pressure.  
**Odor:** Hydrocarbon odor.

### IV - FIRE AND EXPLOSION

**Flash Point F:** Estimated -156° F **Flammable Limits:** 1.8% Lower 10% Upper

**Extinguishing Media:** Water fog; foam; CO<sub>2</sub>; dry chemical.

**Special Fire Fighting Procedures:** Wear full self-contained breathing apparatus and full protective clothing.

**Unusual Fire and Explosion Hazards:** Avoid storage temperatures above 120° F to prevent can explosions. Avoid water contamination in closed container.

### V - REACTIVITY DATA

**Stability - Conditions to avoid:** Stable under normal storage and handling conditions - Do not store above 100° F or in auto or direct sunlight; cured foam will deteriorate when exposed to UV light.

**Incompatibility:** Water, alcohol, strong bases, finely powdered metal such as aluminum, magnesium or zinc, and strong oxidizers.

**Hazardous Decomposition Products:** Contamination with water may form CO<sub>2</sub>.

**Conditions Contributing to Hazardous Polymerizations:** Contamination with water may form CO<sub>2</sub>. Avoid high heat (flames, extremely hot metal surfaces, heating elements, combustion engines, etc.). Do not store in auto or direct sunlight.

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## VI - HEALTH HAZARD DATA

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### EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

**A. ACUTE (Primary Route of Exposure)** EYE contact with MDI may result in conjunctival irritation and mild corneal opacity. SKIN contact may result in dermatitis, either irritative or allergic. INHALATION of MDI vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Air-borne overexposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Gastrointestinal symptoms include nausea, vomiting and abdominal pain. Polyurethane resin forms a quick bond with skin. Cured foam is hard to remove from skin. May cause eye damage.

**B. SUBCHRONIC, CHRONIC, OTHER :** Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting in allergic symptoms of the lower respiratory tract (asthma-like), including wheezing, shortness of breath and difficulty breathing. Subsequent reactions may occur at or substantially below the PEL and TLV. Asthma caused by isocyanates, including MDI, may persist in some individuals after removal from exposure and may be irreversible. Some isocyanate sensitized persons may experience asthma reactions upon exposure to non-isocyanate containing dusts or irritants. Cross sensitization to different isocyanates may occur. Long-term overexposure to isocyanates has also been reported to cause lung damage, including reduced lung function, which may be permanent. An animal study indicated that MDI may induce respiratory hypersensitivity following dermal exposure.

**C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE :** Breathing difficulties, chest discomfort, headache, eye and nose membrane irritation.

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## VII - EMERGENCY AND FIRST AID PROCEDURES

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**INHALATION:** Remove to fresh air. Give oxygen. If not breathing, give artificial respiration. Keep victim quiet. Do not give stimulants. Get immediate medical attention.

**EYES:** In case of eye contact, flush with water for 15 minutes. Get immediate medical attention.

**SKIN:** If frostbitten, warm skin slowly with water; otherwise, wash affected areas with soap and water. Remove wet foam immediately from skin with acetone or nail polish remover. If foam dries on skin, apply generous amounts of petroleum jelly or lanolin, leave on for one hour, wash thoroughly, and repeat process until foam is removed. Do not attempt to remove dried foam with solvents.

**INGESTION:** In case of ingestion, get immediate medical attention.

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## VIII - SPILL OR LEAK PROCEDURE

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**Spill Management:** If can ruptures, protect area from heat, sparks, flames, or static electricity. Turn off sources of ignition. Vapors are heavier than air. Make sure area is adequately ventilated. Allow foaming process to complete; then dispose according to federal, state and local regulations.

**Waste Disposal Methods :** Waste: Dispose of cured foam per federal, state and local regulations.

Container: Dispose according to federal, state and local regulations.

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## IX - PROTECTION INFORMATION/CONTROL MEASURES

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**Respiratory:** Not Applicable

**Eye Protection:** Safety Glasses **Glove:** Rubber Gloves

**Other Clothing and Equipment :** Wear gloves and safety glasses. Use in well ventilated areas only. See section IV.

**Ventilation:** Maintain local exhaust rate to keep below TLV.

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## X - SPECIAL PRECAUTIONS

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**Precautions to be taken in Handling and Storing :** Always store upright between 0 °F(min) and 100° F(max). Do not store in sunlight.

**Additional Information :** (Carcinogenicity) Results from a lifetime inhalation study in rats indicate that MDI aerosol was carcinogenic at 6 mg/m<sup>3</sup>, the highest dose tested. This is well above the recommended TLV of 5 ppb (0.05 mg/m<sup>3</sup>). Only irritation was noted at the lower concentration of 0.2 and 1 mg/m<sup>3</sup>.

**NFPA**

**Health Hazard.....: 1**

**Fire Hazard.....: 4**

**Reactivity.....: 1**

**Specific Hazard...:**

**HMIS RATING**

**Health Hazard.....: 1**

**Fire Hazard.....: 4**

**Reactivity.....: 1**

**Personal Protection...: X (Sec. 9)**

**Revision Date: 12/05/2002**

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