MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Name	Phone Number			CHEMTREC
Nu-Calgon Wholesaler, Inc.	(314) 469-7000 / (800) 554-5499			(800) 424-9300
Street Address	**City**	**State**	**Postal Code**	**Last Update**
2008 Altom Court	St. Louis	MO	63146-4151	1/4/10
Product Name	**Product Number**	**Product Use**		**EPA Registration #**
Nu-Foam	4293	Insulating Sealant		N/A

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	% By Wt.	CAS Number	TLV	PEL
Polymethylene polyphenylene isocyanate	10-30	9016-87-9	No Data.	No Data.
Methylene bisphenyl isocyanate (MDI) 10-30		101-68-8	.005ppm	0.02 ppm
Flame Retardant	10-30	Proprietary	No Data.	No Data.
Polyol blend	10-30	Proprietary	No Data.	No Data.
Isobutane	5-10	75-28-5	1000 ppm	No Data.
Methylenediphenyl diisocyanate	1-5	26447-40-5	No Data.	No Data.
Propane	1-5	74-98-6	1000 ppm	1000 ppm
Dimethyl ether	1-5	115-10-6	No Data.	No Data.

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: Flammable gas. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. May produce an allergic reaction Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. May cause drowsiness and dizziness. May cause adverse cardiovascular effects.

Potential Health Effects

Eyes: Irritating to eyes. Risk of serious damage to eyes.

Skin: Harmful in contact with skin. Will bond to skin. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Ingestion: May be harmful if swallowed. May cause additional affects as listed under "Inhalation". Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Product may cure in the gastrointestinal tract and form an obstruction. May cause adverse cardiac effects, blood disturbances, and metabolic acidosis.

Inhalation: Harmful by inhalation. Irritating to respiratory system. May cause allergic respiratory reaction. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Inhalation of vapors in high concentration may cause shortness of breath (lung edema). May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Chronic Exposure: Repeated or prolonged exposure may cause central nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Carcinogenicity: There are no known carcinogenic chemicals in this product.

Medical Conditions Aggravated be Exposure: Allergies. Skin disorders. Respiratory disorders. Central nervous system. Preexisting eye disorders. Kidney disorders. Liver disorders. Interactions with Other Chemicals: Irritants. Sensitizers. Epoxies. Use of alcoholic beverages may enhance toxic effects.

SECTION 4 – FIRST AID MEASURES

Eyes: Call a physician immediately. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Skin: Wash skin with soap and water. If symptoms persist, call a physician.

Ingestion: Call a physician or Poison Control Center immediately. May produce an allergic reaction. Do not induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.

Inhalation: Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: -104°C / -155°F

Autoignition Temp: No Data.°C / No Data.°F

Hazardous Products of Combustion: No Data.

Flammable Limits in Air: No Data.

Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire. Dry chemical or CO2. Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.

Fire and Explosion Hazards: Containers may explode when heated. Sensitivity to mechanical impact None/ Sensitivity to static discharge Yes. Specific Hazards Arising from the Chemical: Some may burn but none ignite readily. Ruptured cylinders may rocket.

Special Firefighting Procedures: Wear self-contained breathing apparatus and protective suit.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak: Personal Precautions: Do not touch or walk through spilled material. Stop leak if you can do it without risk.
Methods for Containment: If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate.
Methods for Cleaning Up: Do not direct water at spill or source of leak.
Other Information: Ventilate the area.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can.

Storage Requirements: Keep containers tightly closed in a cool, well-ventilated place. Keep out of the reach of children. Keep at temperatures below 48.8 °C / 120 °F.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Eye Protection: Safety glasses with side-shields.

Protective Clothing: Impervious gloves. Lightweight protective clothing.

Exposure Guidelines:

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methylene bisphenyl isocyanate (MDI)	TWA: 0.005 ppm	Ceiling: 0.02 ppm Ceiling: 0.2 mg/m3	75 mg/m3
Isobutane	TWA: 1000 ppm	N/A	N/A
Propane	TWA: 1000 ppm	TWA: 1000 ppm	2100 ppm

Specific Engineering Controls (such as ventilation, enclosed process): Showers, Eyewash stations, Ventilation systems. Hygiene Measures When using, do not eat, drink or smoke.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Liquid Aerosol	**Freezing Point:** No Data.°C/No Data.°F	**% Volatile by Weight:** No Data.%
Color: Amber	**Vapor Density [air =1]:** No Data.	**Evaporation Rate:** No Data.
Odor: hydrocarbon-like	**Vapor Pressure:** No Data.	**Specific Gravity:** 1.01
Boiling Point: -42°C/-44°F	**Solubility in Water:** Not Compatible	**pH (concentrate):** No Data.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended storage conditions

Hazardous Polymerization: Hazardous polymerization does not occur.

Incompatibilities: Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.

Reactive Conditions to avoid: Keep away from open flames, hot surfaces and sources of ignition. Temperatures above 48.8 °C / 120 °F.

Decomposition Products: Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Hydrogen cyanide.

SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS #	EINECS #	LD 50 of Ingredient (Specify Species)	LC50 of Ingredient (Specify Species)
Polymethylene polyphenylene isocyanate			Oral: 49 g/kg (Rat) Dermal: 9400 mg/kg (Rabbit)	490 mg/m3 (Rat) 4 h
Methylene bisphenyl isocyanate (MDI)			Oral: 9200 mg/kg (Rat)	No Data.
Flame Retardant			Oral: 500 mg/kg (Rat) Oral: 1230 mg/kg (Rabbit) Dermal: 5000 mg/kg (Rat)	5 mg/L (Rat) 4 h
Polyol blend			Oral: 64 mL/kg (Rat) Dermal: 20 mL/kg (Rabbit)	No Data.
Isobutane			No Data.	658 mg/L (Rat) 4 h
Methylenediphenyl diisocyanate			Dermal: 6200 mg/kg (Rabbit)	0.369 mg/L (Rat) 4 h
Propane			Dermal: 658 mg/kg (Rat)	No Data.
Dimethyl ether			No Data.	308.5 mg/L (Rat) 4 h

Chronic Toxicity: Repeated or prolonged exposure may cause central nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Chronic hydrocarbon abuse has been associated with irregular heart rhythms and potential cardiac arrest. Repeated or prolonged contact causes sensitization, asthma and eczemas.
Reproductive Toxicity: This product does not contain any known or suspected reproductive hazards
Target Organ Effects: Central nervous system (CNS), Eyes, Respiratory system, Immune system, Skin, Cardiovascular system.
Endocrine Disruptor Information: This product does not contain any known or suspected endocrine disruptors

SECTION 12 – ECOLOGICAL INFORMATION

Hazardous Ingredients	Aquatic Toxicity Data
Flame Retardant	Toxicity to Algae: EC50 = 4 mg/L 96 h EC50 = 45 mg/L 72 h Microtox: EC50 = 295 mg/L 30 min Daphnia Magna (Water Flea): EC50 = 63 mg/L 48 h
Methylenediphenyl diisocyanate	Toxicity to Algae: EC50 = 3230 mg/L 96 h Daphnia Magna (Water Flea): EC50 > 1000 mg/L 24 h
	Chemical Name Log Pow Flame Retardant 2.59 Isobutane 2.88 Propane 2.3 Dimethyl ether -0.18

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal: Should not be released into the environment. Dispose of in accordance with local regulations. Allow foam to cure before disposal.
Contaminated Packaging: Dispose of in accordance with local regulations. US EPA Waste Number D001

SECTION 14 – TRANSPORTATION INFORMATION

Special Shipping Information: No Data.

Purview	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT (Land)	Consumer commodity	No Data.	No Data.	ORM-D
IMO (Water)	Aerosols UN1950		No Data.	2
ICAO (Air)	Aerosols UN1950		No Data.	2.1

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification: (Workplace Hazardous Material Information System)	A Compressed gases B5 Flammable aerosol D2A Very toxic materials
SARA Title III: (Superfund Amendments & Reauthorization Act)	Acute Health Hazard Yes/ Chronic Health Hazard Yes/ Fire Hazard Yes/ Sudden Release of Pressure Hazard Yes/ Reactive Hazard No Chemical Name — CAS-No — Weight % — SARA 313 - Threshold Values Polymethylene polyphenylene isocyanate — 9016-87-9 — 10-30 — 1.0 Methylene bisphenyl isocyanate (MDI) — 101-68-8 — 10-30 — 1.0 Methylenediphenyl diisocyanate — 26447-40-5 — 1-5 — 1.0
OSHA: (Occupational Safety & Health Administration)	No Data.
TSCA: (Toxic Substance Control Act)	Complies
VOC: (volatile Organic Compounds)	EPA VOC (g/l) 155; EPA VOC (lb/gal) 1.29
CPR: (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
EINECS: (European Inventory of Existing Commercial Chemical Substances)	Complies
DSL / NDSL: (Canadian Domestic Substance List)(Non-Domestic Substance List)	No Data.
CERCLA: (Comprehensive Response Compensation & Liability Act)	No Data.
IDL: (Canadian Ingredient Disclosure List)	No Data.
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	Health Hazard 2* Flammability 4 Stability 1 Personal Precautions B

SECTION 16 – OTHER INFORMATION

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methylene bisphenyl isocyanate (MDI)	X	X	X	X	X
Dimethyl ether	X	X	X		X
Propane	X	X	X		X
Isobutane	X	X	X		

The information contained herein is based on the data available to us and is believed to be correct. However, Nu-Calgon Wholesaler Inc. makes no warranty, expressed, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. Nu-Calgon Wholesaler Inc. assumes no liability for injury from the use of the product described herin.