

MATERIAL SAFETY DATA SHEET
Complies with OSHA's Hazard Communication
Standard 29 CFR 1910.1200

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JUL 25 1994

Identity (As listed on label): POLYCEL Insulating Foam, POLYCEL Insulating Foam
Triple Expanding (12 oz, 24 oz)
UPC: 17442, 17459, 17657, 17996, 97576, 83394, 83402, 83378, 83386, 97568,
83667, 48444-01024
HMIS: H: 2 F: 1 R: 0 P: B,G
Consumer Division, Canadian

SECTION I

Macklanburg-Duncan P.O. BOX 25188 4041 North Santa Fe OKC, OK 73118
24 Hour Number (405) 528-4411
Emergency Number: (800) 424-9300
Date Prepared: February 11, 1994
Replaces: October 26, 1993
Chemical Family: Moisture cure urethane prepolymer.
DOT Class: Consumer Commodity. ORM-D-AIR. DOT-E 306.

SECTION II Hazardous Ingredients / Identity Information

Component	ACGIH TLV/OSHA PEL	% (less than)
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This product contains toxic chemicals, marked by an asterisk (*), subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

Polymeric Diisocyanate	0.005 ppm/0.02 ppm (MDI)	23%
LD50 Oral, Rat:	15000 mg/kg	CAS #: 009016-87-9/026447-40-5
*Methylene bis(phenylisocyanate)	0.005 ppm/0.02 ppm (MDI)	17%
LD50 Oral, Rat:	15000 mg/kg	CAS #: 00101-68-8
*Hydrochlorofluorocarbon propellant		30%
	1000 ppm-TWA/1000 ppm-TWA	
LC50 128,000 ppm (4 hrs, rat, inhalation)		CAS #: 75-45-6/75-68-3
Tri(beta-chloropropyl) Phosphate	NE/NE	11%
LD 50 = 4200 mg/Kg (oral, rat)		CAS #: 13674-84-5

SECTION III Physical / Chemical Characteristics

Boiling Point (degrees F): HCFC: -19 deg F
Vapor Pressure (mm Hg): 79.4 PSIA @ 70 Deg F for HCFC
Vapor Density (Air = 1): 3.25
Specific Gravity (Water = 1): 1.08
Bulk Density: 2 lbs/cubic foot (cured)
% Volatile: 30%
Evaporation Rate (Butyl Acetate = 1): >1 FOR HCFC
Solubility in Water: Insoluble. Uncured material reacts slowly with water to liberate carbon dioxide.
Appearance and Odor: Cream colored, viscous foam with slight sweet odor. Solid upon curing.

SECTION IV Fire and Explosion Hazards

Flash Point (Method Used) (degrees F): NA
Flammable Limits LEL: NA UEL: NA
Extinguishing Media: Carbon dioxide, foam, dry chemical, high expansion chemical foam.

Special Fire Fighting Procedures: Self-contained breathing apparatus in positive pressure mode and full protective gear should be worn.

Unusual Fire and Explosion Hazards: Irritating or toxic gases and aerosols such as carbon monoxide, carbon dioxide, nitrous oxides, isocyanurates and hydrogen cyanide may be produced during burning. Sealed containers contain freon which may expand under pressure and explode. MDI vapors, fluorocarbon vapors and other decomposition products that are highly toxic can be generated. Cool fire exposed containers with cold water.

NFPA Rating: H-2, F-1, R-0

SECTION V Reactivity Data

Stability: stable

Conditions to avoid: Mixture is shipped in a pressurized DOT aerosol can. Proper precautions for handling should be observed. The following conditions should be avoided: water contamination, freezing, heat, temperatures above 120 deg F. Polymeric isocyanate is stable under normal conditions but can react with water, producing carbon dioxide. At elevated temperatures this reaction can be violent.

Incompatibility (Materials to Avoid): water, strong caustics, amines, some metal compounds, alcohols. Do not incinerate aerosol can.

Hazardous Decomposition or Byproducts: Carbon dioxide, carbon monoxide, nitrous oxides, hydrogen cyanide, and isocyanurates.

Hazardous Polymerization Risk: Will not occur.

Conditions to Avoid: NA

SECTION VI Health Hazard Data

Route(s) of Entry; Symptoms and Treatment

Inhalation: Vapors of Polycel may contain trace levels of free isocyanates and propellant. Persons sensitized to isocyanates may experience breathlessness, severe coughing, dyspnea, chest discomfort, nose and throat irritation and reduced pulmonary function. Inhalation of propellant at very high concentrations may cause light headed-ness, headache, giddiness, shortness of breath and may lead to narcosis, cardiac irregularities, unconsciousness and death. Treat symptomatically with vaso-dilators and oxygen.

Skin: Mixture is essentially non-irritating to skin. In a small population of persons Polycel may cause localized irritation and discoloration. Prolonged contact could produce reddening, swelling, or blistering and in some individuals, sensitization and dermatitis. Product adheres to skin like an adhesive. Remove contaminated clothing. Wash immediately with abrasive soap, acetone or alcohol may also be helpful. After product cures it can only be removed mechanically. We recommend using an abrasive cleanser and a stiff vegetable brush.

Eyes: Liquid, vapors, or aerosol are irritating to the eyes. Corneal damage can occur; however, indications are that damage is reversible. Foam contact with the eyes can cause physical damage as well, due to the adhesive quality of the foam. If foam gets into eyes immediately flush with water for 15 minutes, holding eyelids apart. Consult physician immediately.

Ingestion: Ingestion of uncured foam can result in irritation and corrosive action in mouth and digestive tract. Uncured foam may possibly cure within the gastrointestinal tract and cause obstruction of free passage of food and air.

Do not ingest. If swallowed, do not induce vomiting, contact physician. Obstruction of the GI tract may also occur if cured pieces of foam are swallowed. Cured foam is not considered toxic.

Medical Conditions Aggravated by Exposure: Chronic respiratory problems

Carcinogenicity: Components of this blend are not classified as carcinogenic by IRAC, NTP, or OSHA.

SECTION VII

Precautions for Safe Handling and Use

Steps To Be Taken In Case Material is Spilled or Released: Wear impervious gloves, safety glasses and appropriate work clothes. Cover with absorbent material (sawdust); place in open top container or plastic sheet. After curing, material can only be removed mechanically.

Waste Disposal Method: Use entire can of foam within 30 days of initial application. If excess product needs to be disposed of, vent can and dispense foam into a suitable waste container, allow to cure, and dispose of in a sanitary landfill in accordance with local, state and federal regulations. Do not incinerate or puncture can. Empty can completely before disposal.

Handling and Storage Precautions: Do not store near heat sources, sparks, or flame. STORE BETWEEN 40 degrees AND 120 degrees F. Do not freeze. DO NOT STORE IN CARS, CAR TRUNKS, OUTSIDE IN DIRECT SUNLIGHT ON HOT DAYS, OR IN ANY LOCATION WHERE TEMPERATURE MAY EXCEED 120 degrees F. CONTENTS UNDER PRESSURE HEAT MAY CAUSE UNCONTROLLED RELEASE OF MATERIAL OR EXPLOSION. If can is stored at temperatures less than 40 degrees F, contents may separate. Shake can vigorously to recombine.

KEEP OUT OF REACH OF CHILDREN.

Other Precautions: Do not ingest.

READ and understand all instructions before use. Avoid contact with skin as it is very difficult to remove.

SECTION VIII

Control Measures

Respiratory Protection: Adequate to maintain below TLV, mechanical exhaust is recommended. If respiratory protection is required, use an air purifying or positive pressure supplied air system or a self contained breathing apparatus. Use only in well ventilated areas.

Protective Gloves: USE CHEMICALLY RESISTANT RUBBER OR PLASTIC GLOVES! Product cures to a rigid solid within 30 minutes--this residue cannot be removed from skin without mechanical abrasion. Before foam cures it may be removed with acetone, paint thinner or similar solvent. It is imperative care is taken to prevent foam contact with skin!

Eye Protection: safety goggles or face shield

Hygienic Practices: Wash skin and hands after use.