

## MATERIAL SAFETY DATA SHEET

W. R. Grace & Co.  
62 Whittamore Ave.  
Cambridge, MA 02140

MSDS Number: P-8402  
Cancels: C-174-2  
Date Prepared: 11/18/86

Telephone Number for  
Information and Emergency Response  
(617) 876-1400  
X-3140 or 3897

SECTION I - PRODUCT IDENTIFICATION

Trade Names and Synonyms: Polycel (Single Component, Professional and Industrial Sizes) PC-8, PC-14, PC-600, PC-50 dB-, PC-96D & PC-3600

Chemical Name and Family: Polyurethane Pre-polymer System

Formula: Mixture

CAS#: Not Applicable (Mixture)

DOT Hazard Class/ID#/Label: Nonflammable gas/UN1956/nonflammable gas

Reportable Quantity (RQ): Not Applicable

Surface Freight Classification: Hazardous Material

NPCA-HMIS Hazard Index:

- Health: 1\*
- Flammability: 0
- Reactivity: 0
- Personal Protection: B,E

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Ingredient (CAS#, Chemical & Common Names)	Percent by Weight	Exposure Limits		
		OSHA	ACGIH	OTHER
Polymeric Diisocyanate CAS #9016-87-9	20 - 40%	0.02 ppm-Ceiling 10 ppm-IDLH	0.02 ppm (0.2 mg/m <sup>3</sup> ) -Ceiling	None
Dichlorodifluoromethane CAS #75-71-8 with Dimethyl Ether CAS #115-10-6	20 - 35% .5- 11%	1000 ppm (4,950 mg/m <sup>3</sup> ) -----None	1000 ppm 1250 ppm-STEL Established-----	None
Trichlorofluoromethane CAS #75-69-4	<10%	1000 ppm (5,600 mg/m <sup>3</sup> ) 10,000 ppm-IDLH	1000 ppm -Ceiling	None

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

<u>Boiling Point</u>	Unknown	<u>Specific Gravity (H<sub>2</sub>O = 1)</u>	~ 1.08
<u>Vapor Pressure @ 70°F</u>	70PSIG	<u>% Volatiles By Volume (%)</u>	~ 33
<u>Vapor Density (AIR = 1)</u>	Unknown	<u>Evaporation Rate (Butyl Acetate = 1)</u>	Unknown
<u>Solubility in Water</u>	Insoluble	<u>pH</u>	Unknown
<u>Appearance and Odor</u>	Grey-green viscous foam - solid upon curing		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used) N.A.      Flammable Limits N.A.      LEL UEL  
N.A. N.A.

Extinguishing Media Polycel is an organic material and will burn in the presence of sufficient heat and oxygen. Extinguish with CO<sub>2</sub>, dry chemical or chemical foam.

Special Fire Fighting Procedures Wear full-body protection and use self-contained breathing apparatuses (SCBA).

Unusual Fire and Explosion Hazards N.A.

SECTION V - REACTIVITY DATA

Stable: Yes

- Conditions to Avoid:
- 12oz. industrial containers(PC8 and PC14) may burst at temperatures above 120°F.
  - Professional size refillable and disposable containers will cause total contents to be discharged through a relief disc at temperatures above 160°F.

Incompatibility (Materials to Avoid): N.A.

Hazardous Decomposition or Byproducts: Carbon Monoxide, Isocyanates, Nitrous Oxides

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: N.A.

SECTION VI - HEALTH HAZARD DATA

(Include all known acute and chronic effects, signs, and symptoms of exposure and medical conditions generally aggravated by exposure)

Inhalation:

Polycel, when used according to the instructions, begins to cure immediately upon release from the can. The curing process makes the risk of overexposure to free isocyanate minimal. However, asthmatics and individuals sensitized to isocyanates experience asthma like symptoms including tightening of the chest and difficulty breathing. Based on job site sampling, chlorofluorocarbon vapor exposure is also expected to be minimal and symptoms due to chlorofluorocarbons which can effect the cardiovascular and peripheral nervous systems are not expected at these low levels.

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**SECTION VI - HEALTH HAZARD DATA (Cont'd)**

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**Skin and Eye:**

Polycel is very sticky. Once cured, it is difficult to remove from skin, but it is essentially nonirritating to skin. However, in a small proportion of persons, repeated contact may cause an allergic skin reaction.

Polycel in or near the eye may cause physical abrasion leading to minor or moderate eye irritation.

**Ingestion:**

If swallowed, uncured Polycel may possibly cure within the gastrointestinal tract and cause tissue irritation and/or an obstruction to the free passage of food and air.

No adverse effects are known to occur if cured Polycel is swallowed.

**Carcinogenicity According to NTP, IARC and OSHA:**

Not Applicable

**Emergency and First Aid Procedures:**

If inhaled, get fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

In case of contact, flush eyes immediately with plenty of water for at least 15 minutes. Consult a physician immediately. Water accelerates the curing process. Removal from eyes may require physical removal by trained medical personnel. Foam cured on skin through accidental contact should be soaked in soap and water. Frequent rubbing with an abrasive soap and water will eventually remove the foam safely. Hand creams or moisturizing lotions should be used between washings. NEVER CLEAN SKIN WITH SOLVENTS. They are not effective.

If uncured Polycel is swallowed, consult a physician immediately.

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**SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE**

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**Warning Statements:**

- CAUTION! CONTENTS UNDER PRESSURE. DO NOT PUNCTURE OR INCINERATE.
- Contains polymeric diisocyanate CAS #9016-87-9, chlorofluorocarbons CAS No's. 75-71-8, 75-69-4, and dimethyl ether CAS #115-10-6.
- May cause allergic skin or respiratory reaction in sensitized persons.
- Irritating to eyes.

**Precautionary Measures:**

- Keep away from heat and direct sunlight.
- Avoid contact with eyes, skin and clothing. Wear gloves, eye protection and work clothes.
- Avoid breathing vapors.
- Use with adequate ventilation.
- Wash thoroughly after handling.
- Keep out of reach of children.

**Steps to be Taken in Case Material is Released or Spilled:**

Polycel products will polymerize (cure) upon contact with air. Observe above precautions with uncured product. Allow product to cure, then scrape, shovel or otherwise remove for disposal.

