

Material Safety Data Sheet (MSDS)	
Date Prepared: 04/01/2003	Revision Date: 10/13/2003

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Poly-Ground Component A	24 Hour Emergency Telephone Numbers:
Manufacturer: Forward Enterprises, Inc. 9430 Telephone Road Houston, Texas 77075 Customer Service: (800) 367-9273	CHEMTREC (800) 424-9300

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	wt.%	CAS Registry #
Polymethylene Polyphenyl Isocyanate		9016-87-9
Pyrolysis Fuel Oil		69013-21-4
Aromatic Hydrocarbon		64742-94-5
Carbon Black		1333-86-4
Carbon Fibers		7440-44-0

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	EXPOSURE LIMITS		
	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Supplier</u>
Polymethylene Polyphenyl Isocyanate	0.02 ppm	0.005 ppm	
Pyrolysis Fuel Oil	5 mg/m3	0.2 mg/m3	
Carbon Black	3.5 mg/m3	3.5 mg/m3	

COMMENTS:

Ingredient percentages withheld as trade secret pursuant to 29 CFR 1910.1200 (I)

SECTION 3 - HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: May cause skin irritation. Allergic reactions are possible.

POTENTIAL HEALTH EFFECTS

Eyes: Moderately irritating to eyes and respiratory tracts.

Skin: May cause skin irritation.

Inhalation: May cause allergic respiratory reaction.

SECTION 4 - FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

Skin: Wash affected area with soap and water. Get medical attention if irritation develops or persists.

Inhalation: Move victim to fresh air and treat symptomatically.

Ingestion: Get medical attention **IMMEDIATELY**.

SECTION 5 - FIRE FIGHTING MEASURES**Flashpoint and Method:** >221°F PENSKEY-MARTEN CC**Flammable Class:** Combustible liquid. Can form explosive mixtures at temperatures at or above the flash point.**Extinguishing Media:** Use alcohol foam, carbon dioxide, or watery spray when fighting fires involving this material.**Other Considerations:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA / NIOSH approved or equivalent) and full protective gear.**Fire Fighting Procedures:** Evacuate the area and fight fire from a safe distance.**SECTION 6 - ACCIDENTAL RELEASE MEASURES****Small Spill:** Soak up with inert absorbent, shovel into waste container, treat with reacting solution.**Special Protective Equipment:** See Section 8**SECTION 7 - HANDLING AND STORAGE****Handling:** When using do not eat or drink.**Storage:** Store in a tightly closed container.**SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION****Engineering Controls:** Good general ventilation should be sufficient to control airborne levels.**PERSONAL PROTECTION****Eyes and Face:** Wear eye / face protection.**Skin:** Wear suitable gloves.**Protective Clothing:** Wear suitable protective clothing.**Work Hygienic Practices:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Semiliquid	pH: 7.8	Boiling Point: 358°F
Percent Volatile: 17		Solubility in Water: Insoluble
Vapor Pressure: <0.1 mmHg		Evaporation Rate: <1 (n-Butyle Acetate = 1)
Vapor Density: >1 (air = 1)		Specific Gravity: 1.14 (water = 1)

SECTION 10 - STABILITY AND REACTIVITY**Stable:** Yes**Hazardous Polymerization:** No**Stability:** Stable**Polymerization:** Stable. However, may decompose if heated.**Conditions To Avoid:** Avoid high temperatures.**Incompatible Materials:** Oxidizing materials.

SECTION 11 - TOXICOLOGY

Sensitization: May cause sensitization by inhalation.

Carcinogenicity: NTP: Possible cancer hazard - (contains material which) may cause cancer based on animal data.

SECTION 12 - ECOLOGICAL INFORMATION**SECTION 13 - DISPOSAL CONSIDERATIONS**

Disposal Method: Disposal must be in accordance with local, state, and federal regulations.

SECTION 14 - TRANSPORT INFORMATION**SECTION 15 - REGULATORY INFORMATION**

United States: SARA TITLE III (Superfund Amendments and Reauthorization Act) 313 Reportable Ingredients:
CAS No. 101-68-8, maximum 40%

SECTION 16 - OTHER INFORMATION

Approval Date: 10/13/2003 **Revision #** 2

This MSDS replaces the June 17, 2003 MSDS. Any changes in information are as follows:
In Section 9, Specific Gravity (from) Percent Volatile

NFPA CODES

Fire: 1 **Health:** 3 **Reactivity:** 1

Material Safety Data Sheet (MSDS)

Date Prepared: 04/01/2003

Revision Date: 10/13/2003

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Poly-Ground Component B

Manufacturer:

Forward Enterprises, Inc.
9430 Telephone Road
Houston, Texas 77075
Customer Service: (800) 367-9273

**24 Hour Emergency Telephone
Numbers:**

CHEMTREC (800) 424-9300

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name:	wt.%	CAS Registry #
Aromatic Amino Polyol		68909-26-2
Aromatic Hydrocarbon		64742-94-5
Silicone Surfactant		
Tertiary Amine		
Organic Salts Solution		

COMMENTS:

Ingredient percentages withheld as trade secret pursuant to 29 CFR 1910.1200 (I)

SECTION 3 - HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: May cause eye irritation.

POTENTIAL HEALTH EFFECTS

Eyes: Mildly irritating to the eyes.

Skin: May cause skin irritation.

Ingestion: May cause vomiting.

Inhalation: Vapor irritating.

SECTION 4 - FIRST AID MEASURES

Eyes: Flush eyes with water for 15 minutes. Get medical attention.

Skin: Wash with soap and water. Get medical attention if irritation develops or persists.

Inhalation: Move victim to fresh air and treat symptomatically.

Ingestion: Contact local poison control center or physician.

SECTION 5 - FIRE FIGHTING MEASURES**Flashpoint and Method:** >298°F Pensky-Marten CC**Flammable Class:** Combustible liquid. Can form explosive mixtures at temperatures at or above the flash point.**Extinguishing Media:** Use alcohol foam, carbon dioxide, or watery spray when fighting fires involving this material.**Other Considerations:** As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA / NIOSH approved or equivalent) and full protective gear.**Fire Fighting Procedures:** Evacuate the area and fight fire from a safe distance.**SECTION 6 - ACCIDENTAL RELEASE MEASURES****Small Spill:** Absorb liquid and scrub the area with detergent and water.**Special Protective Equipment:** See Section 8**SECTION 7 - HANDLING AND STORAGE****Handling:** When using do not eat or drink.**Storage:** Store in a tightly closed container.**SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION****Engineering Controls:** Good general ventilation should be sufficient to control airborne levels.**PERSONAL PROTECTION****Eyes and Face:** Wear eye / face protection.**Skin:** Wear suitable gloves.**Protective Clothing:** Wear suitable protective clothing.**Work Hygienic Practices:** A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Liquid	pH: 9.8
Percent Volatile: 7.5	Boiling Point: 275°F to 410°F
Vapor Pressure: <1 mmHg	Evaporation Rate: <1 (n-Butyle Acetate = 1)
Vapor Density: >1 (air = 1)	Specific Gravity: 1.10 (water = 1)

SECTION 10 - STABILITY AND REACTIVITY**Stable:** Yes**Hazardous Polymerization:** No**Conditions To Avoid:** Avoid high temperatures.**Incompatible Materials:** Oxidizing materials.

SECTION 11 - TOXICOLOGY**SECTION 12 - ECOLOGICAL INFORMATION****SECTION 13 - DISPOSAL CONSIDERATIONS**

Disposal Method: Disposal must be in accordance with local, state, and federal regulations.

SECTION 14 - TRANSPORT INFORMATION**SECTION 15 - REGULATORY INFORMATION**

United States: SARA TITLE III (Superfund Amendments and Reauthorization Act) 313 Reportable Ingredients:
CAS No. 91-20-3, maximum 2%

SECTION 16 - OTHER INFORMATION

Approval Date: 10/13/2003 **Revision #** 3

**This MSDS replaces the October 13, 2003 MSDS. Any changes in information are as follows:
In section 9, Specific Gravity (from) 1.13 to 1.10**

NFPA Codes- Fire: 1 Health: 1 Reactivity: 0