

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

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

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

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

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