

## Safety Data Sheet (SDS)

**RAINBOW TECHNOLOGY CORPORATION**  
**261 Cahaba Valley Parkway**  
**Pelham, Alabama 35124**

### MATERIAL SAFETY DATA SHEET

#### SECTION 1 - MANUFACTURER INFORMATION

MANUFACTURER/DISTRIBUTOR:	Rainbow Technology Corporation (800) 637-6047
CONTACT PERSON:	Larry Joe Steeley, Jr.
EMERGENCY PHONE # (24 HRS.):	Chem-Tel Inc. (800) 255-3924
PRODUCT NUMBER:	79477, 79492, 79486, & 79503 (QTEL 2005)
PRODUCT NAME:	Plugging Compound
ISSUE DATE:	June 25, 2015
REPLACES MSDS DATED:	May 27, 2014

#### PART A – POLYOL

#### SECTION 2 – HAZARDS IDENTIFICATION

<b>Emergency Overview:</b>	Clear yellow liquid. Mild odor.
<b>Potential Health Effects:</b>	<u>Eyes</u> – May cause mild irritation. <u>Skin</u> – Unlikely to cause irritation. <u>Inhalation</u> – May cause mild irritation. <u>Ingestion</u> – May cause mild gastrointestinal discomfort. <u>Chronic Effects</u> – None Known.

#### SECTION 3 – HAZARDOUS INGREDIENT INFORMATION

Ingredient	% (W/W)	CAS Number
CONTAINS NO HAZARDOUS INGREDIENTS		

#### SECTION 4 – FIRST AID MEASURES

<b>Eyes:</b>	Flush eyes with water for 15 minutes. If irritation persists, consult a physician.
<b>Skin:</b>	Wash thoroughly with soap and water. Remove and wash clothing before re-use.
<b>Inhalation:</b>	Move to fresh air; no adverse effects likely.
<b>Ingestion:</b>	Induce vomiting, drink water; call a physician.

#### SECTION 5 – FIRE FIGHTING MEASURES

<b>Flammable Properties:</b>	No unusual fire or explosion hazards.
<b>Extinguishing Media:</b>	CO2, water spray, foam, dry chemical.
<b>Protection of Fire Fighters:</b>	Self contained breathing apparatus and full protective clothing should be worn by fire fighters.

#### SECTION 6 – ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Use personal protective equipment as recommended in Section 8.
<b>Environmental Precautions:</b>	Do not empty into drains or discharge into the soil/subsoil.
<b>Methods for Containment:</b>	Cover spill with absorbent material. Remove for disposal.
<b>Methods for Clean-Up:</b>	Wash affected area thoroughly with water.

#### SECTION 7 – HANDLING AND STORAGE

<b>General Warning to Prevent Exposure:</b>	Avoid contact with eyes, skin, and clothing.
<b>General Storage Information:</b>	Wash thoroughly after handling. Store in tightly-sealed containers in a cool, dry, well-ventilated area.

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## SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ingredient	Exposure Limit	Unit
CONTAINS NO HAZARDOUS INGREDIENTS		
<b>Engineering Controls:</b>	None required.	
<b>Personal Protective</b>	<u>Eyes:</u> Safety glasses or goggles.	
<b>Equipment:</b>	<u>Skin:</u> Rubber or plastic gloves.	
	<u>Inhalation:</u> None required.	
	<u>Other:</u> None required.	

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Pale yellow liquid
<b>Odor:</b>	Mild
<b>Melting Point (°C):</b>	N/E
<b>Boiling Point (°C):</b>	> 200 ° C
<b>Flash Point:</b>	> 93.3 ° C
<b>Evaporation Rate:</b>	N/E
<b>Upper/Lower Flammable</b>	N/E
<b>Limits:</b>	
<b>Vapor Pressure @ 25°C:</b>	N/E
<b>Vapor Density:</b>	N/E
<b>Specific Gravity:</b>	0.98
<b>Solubility:</b>	Insoluble
<b>VOC content:</b>	N/E

## SECTION 10 – STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable
<b>Conditions to Avoid:</b>	None
<b>Incompatible Materials:</b>	Strong oxidizers
<b>Hazardous Decomposition</b>	CO, CO2
<b>Products:</b>	
<b>Possibility of Hazardous</b>	Will not occur
<b>Reactions:</b>	

## SECTION 11 – TOXICOLOGICAL INFORMATION

<b>Acute Dose Toxicity:</b>	None known.
<b>Repeated Dose Toxicity:</b>	None known.
<b>Sensitization:</b>	Does not occur.
<b>Carcinogenicity:</b>	Not a known carcinogen.
<b>Neurological Effects:</b>	None known.
<b>Genetic Effects:</b>	None known.
<b>Reproductive Effects:</b>	None known.
<b>Developmental Effects:</b>	None known.
<b>Target Organ Effects:</b>	None known.

## SECTION 12 – ECOLOGICAL INFORMATION

None known.

## SECTION 13 – DISPOSAL CONSIDERATIONS

Recover or recycle if possible.

Dispose of this material in accordance with local, state, and federal laws and regulations.

All provided information only applies to the material as supplied to the user. The characteristics outlined may not apply if the material has been used or otherwise contaminated. It is the responsibility of the user to determine the proper waste identification and disposal methods in compliance with applicable regulations.

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## SECTION 14 – TRANSPORT INFORMATION

NOT REGULATED FOR TRANSPORT

## SECTION 15 – REGULATORY INFORMATION

**Canadian Regulations:** This material is not classified as hazardous under the WHMIS classification system. All of the components of this material appear on the 'Domestic Substances List' (DSL). This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all of the information required in the *Controlled Products Regulations*.

**US Regulations:** This material is not classified as hazardous material. All of the components of this material appear on the 'Toxic Substances Control Act' (TSCA) inventory.

## SECTION 16 – OTHER INFORMATION

**Abbreviations:** N/E Not Established

## PART B – ISOCYANATE

### SECTION 2 – HAZARDOUS INGREDIENT INFORMATION

Ingredient	% (W/W)	CAS Number
Polymeric Diphenylmethane Diisocyanate	-----	9016-87-9

### SECTION 3 – HAZARDS IDENTIFICATION

**Emergency Overview:** Light amber-brown liquid. Slight odor.  
Toxic by inhalation.  
Harmful if swallowed.  
May cause eye, skin, and/or respiratory tract irritation.

**Potential Health Effects:**

Eyes – Irritant. May cause redness.

Skin – Irritant. Prolonged or repeated contact can lead to reddening, drying, and blistering. Sensitizer

Inhalation – Irritant. Sensitizer. Highly toxic by inhalation of isocyanate vapors. May cause breathlessness, chest discomfort and reduced pulmonary function.

Ingestion – May cause adverse health effects.

Chronic Effects – Prolonged or repeated inhalation of isocyanate vapors can cause lung damage. Heating of the product can release additional vapors. This product should not be used without adequate ventilation.

### SECTION 4 – FIRST AID MEASURES

**Eyes:** Flush eyes with water for 15 minutes. Seek immediate medical attention.

**Skin:** Remove affected clothing. Wash skin with soap and water immediately. Wash contaminated clothing before re-use. Contact physician if irritation persists.

**Inhalation:** Move to fresh air. If breathing difficulties persists, administer oxygen and seek medical attention.

**Ingestion:** Drink 1-2 cups of milk or water. Do not induce vomiting. Call a physician.

### SECTION 5 – FIRE FIGHTING MEASURES

**Flammable Properties:** Isolate from heat, electrical equipment, sparks and open flame. Closed containers may explode when exposed to extreme heat, or may burst if contaminated with moisture.

**Hazardous Combustion Products:** CO, CO<sub>2</sub>, Nitrous Oxide and HCN

**Extinguishing Media:** CO<sub>2</sub>, dry chemical, foam, water spray (fog). Do not use water jet.

**Protection of Fire Fighters:** Self contained breathing apparatus and full protective clothing should be worn by fire fighters.

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## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protective equipment as recommended in Section 8.

**Environmental Precautions:** Do not empty into drains or discharge into the soil/subsoil.

**Methods for Containment:** Cover spill with inert, non-flammable absorbent material. Place in an open-top container or on a plastic sheet and remove to ventilated area.  
Remove for disposal.

**Methods for Clean-Up:** Clean spill area with a solution of 90% water, 8% ammonium hydroxide, and 2% detergent.

## SECTION 7 – HANDLING AND STORAGE

**General Warning to Prevent Exposure:** Do not breathe fumes or vapors.  
Avoid contact with eyes, skin, and clothing.  
Wash thoroughly after handling.  
Wash thoroughly after handling.

**General Storage Information:** Store in tightly-sealed containers in a cool, dry area.  
Keep away from moisture.  
For long-term storage, keep under nitrogen blanket.

## SECTION 8 – EXPOSURE CONTROLS

Ingredient	Exposure Limit	Unit
Polymeric Diphenylmethane Diisocyanate	0.005 (TLV-TWA)	ppm

**Engineering Controls:** Use local exhaust ventilation to keep vapor concentrations below TLV.

**Personal Protective Equipment:**  
Eyes: Safety glasses or goggles; face shield if risk of splashing is present.  
Skin: Rubber gloves; chemical apron if risk of splashing is present.  
Inhalation: Approved organic respirator if TLV is exceeded.  
Other: Safety shower, eye bath.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Brown liquid

**Odor:** Slightly musty

**Melting Point (°C):** N/E

**Boiling Point (°C):** > 300 °C (decomposes)

**Flash Point:** 203 °C (397.4 °F) Closed Cup

**Evaporation Rate:** N/E

**Upper/Lower Flammable Limits:** N/E

**Vapor Pressure @ 25°C:** 0.000004 mmHg

**Vapor Density:** 8.5

**Specific Gravity:** N/E

**Solubility:** Immiscible in water

**VOC content:** N/E

## SECTION 10 – STABILITY AND REACTIVITY

**Chemical Stability:** Stable at room temperature

**Conditions to Avoid:** Moisture, excessive heat, freezing.

**Incompatible Materials:** Water, acids, amines, strong bases, alcohols, excessive heat.

**Hazardous Decomposition Products:** Carbon monoxide and carbon dioxide on combustion.  
Possible nitrogen oxides or cyanide-type gas.

**Possibility of Hazardous Reactions:** May occur at elevated temperatures in the presence of alkalies, tertiary amines and metal compounds.

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## SECTION 11 – TOXICOLOGICAL INFORMATION

<b>Acute Dose Toxicity:</b>	Polymeric diphenylmethane	Oral LD50:	>5000 mg/kg (rat)
	Diisocyanate	Dermal LD50:	>5000 mg/kg (rabbit)
		Inhalation LC50:	490 mg/m <sup>3</sup> /4h (rat)
<b>Repeated Dose Toxicity:</b>	N/E		
<b>Sensitization:</b>	May cause sensitization by skin contact or by inhalation.		
<b>Carcinogenicity:</b>	Not listed as a Carcinogen by ACGIH, IARC or NTP.		
<b>Neurological Effects:</b>	N/E		
<b>Genetic Effects:</b>	N/E		
<b>Reproductive Effects:</b>	No adverse effects are anticipated.		
<b>Developmental Effects:</b>	No adverse effects are anticipated.		
<b>Target Organ Effects:</b>	Lungs-chronic inhalation can cause respiratory distress and respiratory impairments.		

## SECTION 12 – ECOLOGICAL INFORMATION

**Biodegradability:** Not readily biodegradable.

## SECTION 13 – DISPOSAL CONSIDERATIONS

Recover or recycle if possible.

Dispose of this material in accordance with local, state, and federal laws and regulation.

All provided information only applies to the material as supplied to the user. The characteristics outlined may not apply if the material has been used or otherwise contaminated. It is the responsibility of the user to determine the proper waste identification and disposal methods in compliance with applicable regulations.

## SECTION 14 – TRANSPORT INFORMATION

**TDG** NOT REGULATED

**DOT** NOT REGULATED < 5000 lbs.

## SECTION 15 – REGULATORY INFORMATION

<b>Canadian Regulations:</b>	As per WHMIS, this material is classified. D1A ('Poisonous Material Causing Serious and Toxic Effects') – Very Toxic D2A ('Poisonous Material Causing Serious and Toxic Effects') – Very Toxic D2B ('Poisonous Material Causing Serious and Toxic Effects') – Toxic All of the components of this material appear on the 'Domestic Substances List' (DSL). This product has been classified in accordance with the hazard criteria of the <i>Controlled Products Regulations</i> and the MSDS contains all of the information required in the <i>Controlled Products Regulations</i> .
<b>US Regulations:</b>	This material is classified as hazardous under OSHA regulation 29 CFR 1910.1200. SARA Title III: This product contains the following chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and 40 CFR 372: Polymeric diphenylmethane diisocyanate CAS #9016-87-9 All of the components of this material appear on the 'Toxic Substances Control Act' (TSCA) inventory

## SECTION 16 – OTHER INFORMATION

<b>Abbreviations:</b>	N/E	Not Established
	TLV	Threshold Limit Value
	TWA	Time-Weighted Average

*The information provided herein was believed to be accurate at the time of preparation and prepared from a compilation of sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of this product, and to determine the suitability of the product for its intended use.*