

# Material Safety Data Sheet

## Freeman 1040 Resin

Date of Preparation: January 15, 2007

Revision:

### Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Freeman 1040 Resin

**Chemical Family:** Isocyanate

**CAS Number:** N/A

**Other Designations:** N/A

**Intended Use or Product Type:** Isocyanate

**Manufacturer:** Freeman Manufacturing and Supply Company, 1101 Moore Road, Avon, OH 44011,  
Phone (440)934-1902, FAX (440)934-7200, Hours of Operation 8-5, Emergency Phone Number 800-424-9300.

**HMIS**

**H** 2

**F** 1

**R** 1

**PPE**†

†Sec. 8

#### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Can cause skin irritation, eye irritation, allergic respiratory reaction, and allergic skin reaction. Can be harmful if inhaled.

### Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
*Benzene, 1,1'-Methylenebis [4-Isocyanato-	101-68-8	50-70
*Diphenylmethane diisocyanate	26447-40-5	<20
*Diphenylmethane diisocyanate homopolymer	39310-05-9	<20
*Terphenyl, Hydrogenated	61788-32-7	<20
*Phosphoric Acid Triethyl Ester	78-40-0	<10
*OSHA Hazardous material		

Ingredient	OSHA		ACGIH	
	PEL	STEL	TWA	STEL
Benzene, 1,1'-Methylenebis [4-Isocyanato-	0.02 ppm	none estab.	0.005 ppm	none estab.
Diphenylmethane diisocyanate	none estab.	none estab.	none estab.	none estab.
Diphenylmethane diisocyanate homopolymer	one estab	none estab	none estab	none estab
Terphenyl, Hydrogenated	0.5 ppm	none estab	0.5 ppm	none estab
Phosphoric Acid Triethyl Ester	none estab	none estab	none estab	none estab

### Section 3 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance and Odor:** Clear amber liquid; Aromatic Odor

**Vapor Pressure:** 0.11 mm Hg at 160 °F (71 °C)

**Vapor Density (Air=1):** >0.01

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 1.19

**Water Solubility:** Reacts with water.

**% Volatile:** Negligible

**Evaporation Rate:** Not determined

**pH:** Not determined

### Section 4 - Fire-Fighting Measures

**Flash Point:** >230 °F (>110 °C)

**Flash Point Method:** Estimated

**LEL:** Not established

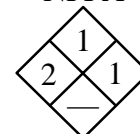
**UEL:** Not established

**Extinguishing Media:** Carbon Dioxide, dry chemical, foam, water.

**Unusual Fire or Explosion Hazards:** Decomposition and combustion products may be toxic.

**Fire-Fighting Equipment:** Use self-contained breathing apparatus.

NFPA



## Section 5 - Stability and Reactivity

**Stability:** Stable.

**Polymerization:** Hazardous polymerization will not occur.

**Incompatibility:** Strong oxidizers, acids and bases.

**Conditions to Avoid:** Contamination with moisture and other products that react with isocyanates. Avoid prolonged heating over 160 F or storing below 75 F. Avoid water contamination.

**Hazardous Decomposition Products:** Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.

## Section 6 - Health Hazard Information

### Potential Health Effects

**Primary Entry Routes:** Dermal; heated product may produce inhalable vapors.

**Overexposure Effects:** Contact with liquid causes eye and skin irritation. If inhaled causes breathlessness, chest discomfort, and reduced pulmonary function. May cause allergic skin and respiratory reactions in some individuals, leading to asthma type spasms of the bronchial tubes and difficulty in breathing.

**Carcinogen Status:** IARC, NTP, and OSHA : Not reviewed.

**Medical Conditions Aggravated by Exposure:** Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases, eye conditions or recurrent skin eczema or sensitization should be excluded from working with isocyanates.

**Additional Information:** Referral to a physician is recommended if there is any question about the seriousness of any injury.

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### Emergency and First Aid Procedures

**Inhalation:** Remove to fresh air. Call a physician.

**Eye Contact:** Immediately flush eyes with water for at least 15 minutes. Call a physician.

**Skin Contact:** Immediately wash with water and soap. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

**Ingestion:** If conscious, give 2-4 glasses of water to drink. Do not induce vomiting. Call a physician.

## Section 7 - Spill, Leak, and Disposal Procedures

**Spill /Leak Procedures:** Remove spillage by absorbing in absorbent material.

**Waste Disposal Method:** Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

**Toxicological Information:**

**Sensitization:** Causes allergic skin and respiratory sensitivity in some people.

**Skin Irritation:** Irritant.

**Eye Irritation:** Irritant.

**Ecological Information:** N/A

**Regulatory Information:**

**US Federal Regulations:**

**Occupational Safety and Health Act (OSHA):** This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

**Resource Conservation and Recovery Act (RCRA):** Not specifically listed as hazardous waste under RCRA (40 CFR 261). However, it is strongly recommended that compound be treated as a hazardous waste and disposed of accordingly.

**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product contains a toxic chemical(s) for routine annual toxic chemical release reporting under Section 313 (40CFR 372). This information must be included in all MSDS's copied or distributed for this material.

Chemical Name: Benzene, 1,1'-Methylenebis[4-Isocyanato-

**Revision:**

**Freeman 1040 Resin**

Common Name: MDI  
Percent in Composition: 64.4643% by wt  
Comment:

**TSCA Section 8(b) - Inventory Status:** Chemical components listed on TSCA Inventory.

**TSCA Section 12(b) - Export Notification:** This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

**State Regulations:**

**California Proposition 65:** This product does not contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

Benzene, 1,1'-Methylenebis(4-Isocyanato-(CAS #101-68-8) is on the New Jersey and Pennsylvania Right to Know Lists.

Hydrogenated Terphenyls (CAS # 61788-32-7) is on the Pennsylvania Right to Know List

**Section 8 - Exposure Controls / Personal Protection**

**Engineering Controls:** General mechanical and local exhaust in accordance with ACGIH recommendations.

**Skin Protection:** Wear impermeable gloves.

**Respiratory protection:** Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

**Eye Protection:** Wear splash-proof chemical goggles.

**Section 9 - Special Precautions and Comments**

**Signal Word:** Warning!

**Precautions:** Can cause skin irritation, eye irritation, allergic respiratory reaction, and allergic skin reaction. Can be harmful if inhaled. Avoid breathing vapor or mists. Avoid contact with eyes, skin, and clothing. Keep container closed when not in use. Use with adequate ventilation. Wash thoroughly after handling.

**DOT Transportation Data (49 CFR 172.101):**

**Shipping Name:** Resin compounds, N.O.I.

**Shipping Symbols:**

**Hazard Class:**

**ID No.:**

**Packing Group:**

**Label:**

**Packaging Authorizations**

**a) Exceptions:**

**b) Non-bulk Packaging:** Non-Bulk

**c) Bulk Packaging:**

**Quantity Limitations**

**a) Passenger, Aircraft, or Railcar:**

**b) Cargo Aircraft Only:**

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# Material Safety Data Sheet

## Freeman 1040 Hardener

Date of Preparation: January 15, 2007

Revision:

### Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Freeman 1040 Hardener

**Chemical Family:** Polyol

**CAS Number:** N/A

**Other Designations:** N/A

**Intended Use or Product Type:** Polyol Blend

**Manufacturer:** Freeman Manufacturing and Supply Company, 1101 Moore Road, Avon, OH 44011,  
Phone (440)934-1902, FAX (440)934-7200, Hours of Operation 8-5, Emergency Phone Number 800-424-9300.

**HMIS**

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†Sec. 8

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Irritant

### Section 2 - Composition / Information on Ingredients

**Ingredient Name**

**CAS Number**

**% wt or  
% vol**

The components of this product are not considered to be hazardous as defined by the OSHA Hazard Communication Standard (CFR 1910.1200).

### Section 3 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance and Odor:** White liquid; slight odor.

**Vapor Pressure:** Not determined

**Vapor Density (Air=1):** Not determined

**Specific Gravity (H<sub>2</sub>O=1, at 4 °C):** 1.03

**Water Solubility:** Slight

**Boiling Point:** Not determined

**% Volatile:** Negligible

**Evaporation Rate:** Not determined

**pH:** Not determined

### Section 4 - Fire-Fighting Measures

**Flash Point:** >200 °F (>93 °C)

**Flash Point Method:** Estimated

**LEL:** Not established

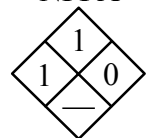
**UEL:** Not established

**Extinguishing Media:** Carbon dioxide, dry chemical, foam, water

**Unusual Fire or Explosion Hazards:** Decomposition and combustion products may be toxic

**Fire-Fighting Equipment:** Use self-contained breathing apparatus.

NFPA



### Section 5 - Stability and Reactivity

**Stability:** Stable.

**Polymerization:** Hazardous polymerization will not occur.

**Incompatibility:** Strong oxidizers, acids, and bases.

**Conditions to Avoid:** Excessive heat for prolonged periods of time.

**Hazardous Decomposition Products:** Combustion may form toxic materials such as carbon dioxide, carbon monoxide.

### Section 6 - Health Hazard Information

#### Potential Health Effects

**Primary Entry Routes:** Dermal; heated product may produce inhalable vapors.

**Medical Conditions Aggravated by Exposure:** Skin and eye conditions.

**Additional Information:** Referral to a physician is recommended if there is any question about the seriousness of any injury.

### Emergency and First Aid Procedures

**Inhalation:** Remove to fresh air. Call a physician.

**Eye Contact:** Immediately flush eyes with water for at least 15 minutes. Call a physician.

**Skin Contact:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes.

**Ingestion:** If conscious, give 2-4 glasses of water to drink. Do not induce vomiting. Call a physician.

## Section 7 - Spill, Leak, and Disposal Procedures

**Spill /Leak Procedures:** Remove spillage by absorbing in absorbent material.

**Disposal:** Consult qualified local or corporate personnel for method that will comply with local, state and federal health and environmental regulations.

**Additional Information:** Disposal of cured product: This product when cured may contain very small quantities of organic mercury compounds. It is the responsibility of the user to determine if the selected disposal method complies with applicable regulations.

**Ecological Information:** N/A

**Toxicological Information:** N/A

### Regulatory Information:

#### US Federal Regulations:

**Occupational Safety and Health Act (OSHA):** This product is not considered to be a hazardous chemical under the OSHA Hazard Communication Standard (29CFR 1910.1200).

**Resource Conservation and Recovery Act (RCRA):** D009 contains mercury.

**SARA Title III: Section 313 Toxic Chemical List (TCL):** This product does not contain any chemical for routine annual Toxic chemical release reporting under Section 313 (40CFR 372).

**TSCA Section 8(b) - Inventory Status:** Chemical components listed on TSCA Inventory.

**TSCA Section 12(b) - Export Notification:** This product does not contain any chemical(s) that are subject to a Section 12(b) export notification.

### State Regulations:

**California Proposition 65:** The following is required composition information. This product contains the following chemical(s) which are currently listed on the California list of Known Carcinogens and Reproductive Toxins: Trace amounts of an organo-mercury compound (0.3% by wt.) and acrylonitrile may be present.

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:** General mechanical and local exhaust in accordance with ACGIH recommendations.

**Skin Protection:** Wear impermeable gloves.

**Respiratory Protection:** Use NIOSH approved organic vapor cartridge respirator when vapor/mist exposure is likely.

**Eye Protection:** Wear splash-proof chemical goggles.

## Section 9 - Special Precautions and Comments

**Signal Word:** Caution!

**Precautions:** Use normal industrial hygiene practices. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

**Other Handling Information:** Nuisance dust may be generated when sanding or sawing cured material.

Revision:

Freeman 1040 Hardener

**DOT Transportation Data (49 CFR 172.101):**

Not regulated as a hazardous material by the U.S. Dept. of Transportation (DOT) 49CFR 172.101 hazardous materials table.

**Shipping Name:** Liquid Plastic,  
N.O.I.

**Shipping Symbols:**

**Hazard Class:** Non Hazardous

**ID No.:**

**Packing Group:**

**Label:**

**Special Provisions (172.102):**  
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**Packaging Authorizations**

**a) Exceptions:**

**b) Non-bulk Packaging:** Non-Bulk

**c) Bulk Packaging:**

**Quantity Limitations**

**a) Passenger, Aircraft, or Railcar:**

**b) Cargo Aircraft Only:**

**Vessel Stowage Requirements**

**a) Vessel Stowage:**

**b) Other:**

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