

Material Safety Data Sheet

Freeman 1070 Resin

Date of Preparation: November 8, 2010

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman 1070 Resin
Chemical Family: Isocyanate
CAS Number: N/A
Other Designations: N/A
General Use: N/A
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 1-800-424-9300

HMIS	
H	2
F	1
R	1
PPE Sec.8.	

Section 2 Composition/Information on Ingredients

Ingredient Name	CAS Number
4,4' Methylene bis(phenylisocyanate)	101-68-8
Polymethylene polyphenylisocyanate	9016-87-9

Ingredient	OSHA		ACGIH	
	PEL	STEL	TLV	STEL
4,4' Methylene bis(phenylisocyanate)	0.005 ppm	0.02 ppm	0.005 ppm	none estab
Polymethylene polyphenylisocyanate	none estab.	none estab.	none estab.	none estab.

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

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

Potential Health Effects

Primary Entry Routes: Skin; Inhalation from heated vapors.

Acute Effects:

Inhalation: causes breathlessness, chest discomfort, and reduced pulmonary function. May cause respiratory reactions in some individuals, leading to asthma type spasms of the bronchial tubes and difficulty in breathing.

Eye: Causes irritation

Skin: May cause allergic skin reactions in some individuals

Ingestion: Swallowing can cause abdominal irritation, nausea, vomiting, and diarrhea.

Medical Conditions Aggravated by Long-Term 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

Chronic Effects: No known chronic effects associated with this material.

Carcinogenicity: IARC, NTP, and OSHA do not list any component as carcinogenic.

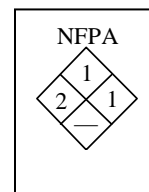
Freeman 1070 Resin

Section 4 First Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen and/or artificial respiration.
Eye Contact: Flush with plenty of water for 15 minutes and get medical attention.
Skin Contact: Wash thoroughly 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. Get medical attention.

Section 5 Fire Fighting Measures

Flash Point: 390 °F (>200 °C)
Flash Point Method: COC
LEL: Not established
UEL: Not established
Extinguishing Media: Carbon dioxide, dry chemical, foam, water.
Fire-Fighting Equipment: Use self-contained breathing apparatus.
Fire and Explosion Hazards: Decomposition and combustion products may be toxic. Avoid water contamination in closed containers or confined spaces. Carbon dioxide evolved.



Section 6 Accidental Release Measures

Spill /Leak Procedures: Absorb with absorbent material and place in open top container. Under good ventilation, decontaminate absorbent and spill area with a mixture of 90% water, 8% ammonia and 2% detergent (exothermic reaction). Leave ventilated 24 hours before disposal. Avoid contact.

Section 7 Handling and Storage

Handling & Storage: Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated contact with skin. Wear safety goggles or face shield. Wear gloves, apron and footwear impervious to this material. Wash clothing before reuse. Store at ambient temperatures. When resealing cans, use a nitrogen purge (Polyurethane Protectant). Keep container tightly closed and upright when not in use to prevent leakage.

Section 8 Exposure Controls/Personal Protection

Ventilation: Local exhaust recommended. General mechanical is acceptable. Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2).
Respiratory Protection: Use a NIOSH approved respirator when vapor/mist exposure is likely.
Eye Protection: Wear splash-proof chemical goggles.
Skin Protection: Wear impermeable gloves.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 Physical and Chemical Properties

Appearance and Odor: Liquid, Amber
Vapor Pressure: Not determined
Vapor Density (Air=1): >1
Specific Gravity (H₂O=1, at 4 °C): 1.09

Water Solubility: Reacts with water
Boiling Point: Not determined
% Volatile: Negligible
Evaporation Rate: Not determined
pH: Not Applicable

Freeman 1070 Resin

Section 10 Stability and Reactivity

Stability: This product is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization can occur.

Chemical Incompatibilities: Strong bases, water, amines, alcohols

Conditions to Avoid: Avoid contamination with water and other materials that react with Isocyanates. Avoid accidental mixing with polyols.

Hazardous Decomposition Products: Carbon dioxide, carbon monoxide, oxides of nitrogen, traces of HCN, MDI vapors.

Section 11 Toxicological Information

Acute Inhalation Exposure Effects: Respiratory irritant.

Skin: Irritant.

Eye: Irritant.

Carcinogenicity: IARC, NTP, and OSHA do not list any components as carcinogens.

Section 12 Ecological Information

No known evidence of adverse effects from available information

Section 13 Disposal Considerations

Disposal: Use safety containers for disposal. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations

Section 14 Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Liquid Plastic N.O.I., Non-Regulated

Section 15 Regulatory Information

US Federal Regulations:

OSHA (Occupational Safety and Health Act): This Material Safety Data Sheet 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.

RCRA (Resource Conservation and Recovery Act): Not a hazardous waste under RCRA (40 CFR 261).

SARA 311/312 Codes: Acute Health, Fire.

SARA Toxic Chemical (40 CFR 372.65): This product contains the following toxic chemical subject to the reporting requirements of Section 313 of SARA Title III of 1986 and of 40 CFR 372.

Benzene, 1,1'-Methylenebis[4-Isocyanato- (CAS # 101-68-8) 64.46% by wt

TSCA Inventory Status: All ingredients listed on TSCA inventory requirements.

State Regulations:

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

Section 16 Other Information

Disclaimer: The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

Material Safety Data Sheet

Freeman 1070 Hardener

Date of Preparation: November 8, 2010

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman 1070 Hardener
Chemical Family: Polyol
CAS Number: N/A
Other Designations: N/A
General Use: N/A
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 1-800-424-9300

HMIS	
H	1
F	1
R	1
PPE Sec.8.	

Section 2 Composition/Information on Ingredients

Ingredient Name	CAS Number
Urethane Polyol	Proprietary
Petroleum Distillate	64741-66-8

Ingredient	OSHA		ACGIH	
	PEL	STEL	TLV	STEL
Urethane Polyol	none estab.	none estab.	none estab.	none estab.
Petroleum Distillate	none estab.	none estab.	none estab.	none estab.

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Causes eye, skin, and respiratory irritations.

Potential Health Effects

Primary Entry Routes: Skin; Inhalation from heated vapors.

Acute Effects:

Inhalation: Irritates the respiratory tract

Eye: Causes irritation

Skin: Causes irritation

Ingestion: Swallowing can cause abdominal irritation, nausea, vomiting, and diarrhea.

Medical Conditions Aggravated by Long-Term Exposure: None known

Chronic Effects: No known chronic effects associated with this material.

Carcinogenicity: IARC, NTP, and OSHA do not list any components of this product as a carcinogen.

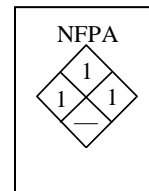
Freeman 1070 Hardener

Section 4 First Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen and/or artificial respiration.
Eye Contact: Flush with plenty of water for 15 minutes and get medical attention.
Skin Contact: Wash thoroughly 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. Get medical attention.

Section 5 Fire Fighting Measures

Flash Point: >365°F (>185 °C)
Flash Point Method: PMCC
LEL: Not established
UEL: Not established
Extinguishing Media: Foam, water fog, CO₂, or dry chemical
Fire-Fighting Equipment: Use self-contained breathing apparatus.
Fire and Explosion Hazards: Decomposition and combustion products may be toxic.



Section 6 Accidental Release Measures

Spill /Leak Procedures: Stop spill at source. Dike area and contain. Clean up remainder with absorbent materials such as sand or vermiculite. Mop up and dispose of.

Section 7 Handling and Storage

Handling & Storage: Use with adequate ventilation. Avoid prolonged breathing of vapor. Avoid prolonged or repeated contact with skin. Wear safety goggles or face shield. Wear gloves, apron and footwear impervious to this material. Wash clothing before reuse. Store at ambient temperatures.. When resealing cans, use a nitrogen purge (Polyurethane Protectant). Keep container tightly closed and upright when not in use to prevent leakage.

Section 8 Exposure Controls/Personal Protection

Ventilation: Local exhaust recommended. General mechanical is acceptable. Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2).
Respiratory Protection: Use a NIOSH approved respirator when vapor/mist exposure is likely.
Eye Protection: Wear splash-proof chemical goggles.
Skin Protection: Wear impermeable gloves.
Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.
Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 Physical and Chemical Properties

Appearance and Odor: Liquid, colorless mild odor	Water Solubility: Slight
Vapor Pressure: Not determined	Boiling Point: Not determined
Vapor Density (Air=1): Not determined	% Volatile: Nil
Specific Gravity (H₂O=1, at 4 °C): 0.98	Evaporation Rate: Not determined

Freeman 1070 Hardener

Section 10 Stability and Reactivity

Stability: Stable.

Conditions to Avoid: Contamination with materials containing active NCO compounds, excessive heat for prolonged period.

Chemical Incompatibilities: Strong oxidizing agents, acids, metal-organic compounds.

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

Hazardous Polymerization: Will not occur. Avoid inadvertent mixture of A and B parts.

Section 11 Toxicological Information

Acute Inhalation Exposure Effects: Respiratory irritant.

Skin Irritation: Irritant.

Eye Irritation: Irritant.

Carcinogenicity: IARC, NTP, and OSHA do not list any components of this product as a carcinogen.

Section 12 Ecological Information

No Known evidence of adverse effects from available information

Section 13 Disposal Considerations

Disposal: Use safety containers for disposal. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations

Section 14 Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Liquid Plastic, N.O.I., Non-Regulated

Section 15 Regulatory Information

US Federal Regulations:

OSHA (Occupational Safety and Health Act): This Material Safety Data Sheet 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.

RCRA (Resource Conservation and Recovery Act): Not a hazardous waste under RCRA (40 CFR 261).

SARA 311/312 Codes:

SARA Toxic Chemical (40 CFR 372.65): This product contains the following toxic chemical subject to the reporting requirements of Section 313 of SARA Title III of 1986 and of 40 CFR 372. None

TSCA Inventory Status: All ingredients listed on TSCA inventory requirements.

State Regulations:

CA Proposition 65 No component listed

Section 16 Other Information

Disclaimer: The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.