

Material Safety Data Sheet

Freeman 1060 Resin

Date of Preparation: September 13, 2010

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman 1060 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	3
F	1
R	1
PPE Sec.8.	

Section 2 Composition/Information on Ingredients

Ingredient Name	CAS Number
Isophorone Diisocyanate	4098-71-9
Hydrogenated MDI	5124-30-1
Cycloaliphatic diisocyanate prepolymer	119185-07-8

Ingredient	OSHA		ACGIH	
	PEL	STEL	TLV	STEL
Isophorone Diisocyanate	none estab.	0.02 ppm	0.005 ppm	none estab.
Hydrogenated MDI	none estab.	none estab.	0.005 ppm	none estab.

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Causes irritation if inhaled and can cause skin and eye irritation, allergic respiratory reaction, and allergic skin reaction. May be harmful if swallowed

Potential Health Effects

Primary Entry Routes: Skin; Inhalation and dermal

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: Persons with severe skin problems should avoid use.

Chronic Effects: Some individuals may become hypersensitized and react allergically with dermatitis or asthma when exposed to airborne levels below the exposure limits.

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

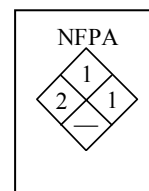
Freeman 1060 Resin

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: >300 °F (>149 °C)
Flash Point Method: estimated
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: Hazy liquid, slight odor
Vapor Pressure: Not established
Vapor Density (Air=1): Not determined
Specific Gravity (H₂O=1, at 4 °C): 1.06

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

Freeman 1060 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.

Hydrogenated MDI (CAS # 5124-30-1) 85% Max

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

State Regulations:

Hydrogenated MDI (CAS # 5124-30-1) may be found on both the New Jersey and the Pennsylvania Right to Know lists

Isophorone Diisocyanate (CAS # 4098-71-9) may be found on the Massachusetts, New Jersey and Pennsylvania Right to Know lists.

Freeman 1060 Resin

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 1060 Hardener Black

Date of Preparation: September 21, 2010

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman 1060 Hardener Black

Chemical Family: Amine

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	0
PPE Sec.8.	

Section 2 Composition/Information on Ingredients

Ingredient Name	CAS Number
Benzenamine, 4,4'-Methylenebis [2-Ethyl-Dibutyl Phthalate	19900-65-3 84-74-2

Ingredient	OSHA		ACGIH		MFR
	TWA	STEL	TWA	STEL	TWA
Benzenamine, 4,4'-Methylenebis [2-Ethyl-Ethyl-	none estab.	none estab.	none estab.	none estab.	0.08 mg/m3
Dibutyl Phthalate	5 mg/m3	none estab.	5 mg/m3	none estab.	none estab.

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

CAUTION:

May be harmful if absorbed through the skin or if swallowed.
May cause target organ damage (animal data)
Possible animal carcinogen

Potential Health Effects

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

Overexposure Effects: Causes eye, skin, and respiratory irritations. May cause allergic skin reaction.
May have an effect on the liver.

Medical Conditions Aggravated by Exposure: Skin and eye conditions.

Chronic Effects: This product contains dibutyl phthalate which may cause adverse reproductive effects in laboratory animals. The relevance to humans is not known.

Carcinogenicity: Contains DeMDA which is a possible animal carcinogen.

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.

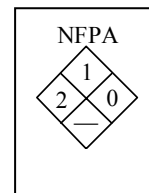
Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing and launder before reuse.
Destroy contaminated shoes.

Ingestion: If conscious, give 2-4 glasses of water to drink. Do not induce vomiting. Get medical attention.

Freeman 1060 Hardener Black

Section 5 Fire Fighting Measures

Flash Point: > 198°F (>92°C)
Flash Point Method: estimated
LEL: Not established
UEL: Not established
Extinguishing Media: Foam, water, 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 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. . 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: Thin black liquid	Water Solubility: Slight
Vapor Pressure: Not determined	Boiling Point: Not determined
Specific Gravity (H₂O=1, at 4 °C): 1.06	

Section 10 Stability and Reactivity

Stability: Stable.
Conditions to Avoid: Excessive heat for prolonged period.
Chemical Incompatibilities: Strong oxidizing agents, acids and bases
Hazardous Decomposition Products: Combustion may form toxic materials, such as carbon dioxide, carbon monoxide.
Hazardous Polymerization: Will not occur. Avoid inadvertent mixing with isocyanate materials

Freeman 1060 Hardener Black

Section 11 Toxicological Information

Inhalation: Respiratory Irritant

Skin: Irritant

Eye: Irritant

Sensitization: Possible in susceptible individuals.

Carcinogenicity: Contains DeMDA which is a possible animal carcinogen.

Chronic Exposure effects: Materials similar to DeMDA have caused tumors in rodents and damage to both the liver and thyroid in test animals.

Dibutyl phthalate may cause reproductive effects in laboratory animals, effects on humans is undetermined.

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: Environmentally hazardous substance, liquid, n.o.s.

Technical Shipping Name (if n.o.s) Dibutyl Phthalate, Diethyl methylene dianiline

Hazard Class: 9

ID No.: UN 3082

Packing Group: III

Label: Marine Pollutant

Note: Under 49 CFR 171.4 (c) NONBULK shipments of marine pollutants are not regulated for transport by motor vehicles, rail cars or aircraft. NONBULK shipments of marine pollutants are regulated when transported by vessel (ship).

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): 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.

Dibutyl Phthalate (CAS # 84-72-2) Percent in Composition: 30-60% by weight

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

Freeman 1060 Hardener Black

Section 15 Regulatory Information continued

State Regulations:

California Proposition 65: The following is required composition information. This product contains dibutyl phthalate which is on the list as a reproductive hazard.

State Lists: Dibutyl phthalate (CAS # 84-74-2) is on the following state Right to Know Lists: Pennsylvania, New Jersey, Massachusetts

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 1060 Hardener Red

Date of Preparation: September 21, 2010

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman 1060 Hardener Red
Chemical Family: Amine
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	0
PPE Sec.8.	

Section 2 Composition/Information on Ingredients

Ingredient Name	CAS Number
Benzenamine, 4,4'-Methylenebis [2-Ethyl- Dibutyl Phthalate	19900-65-3 84-74-2

Ingredient	OSHA		ACGIH		MFR
	TWA	STEL	TWA	STEL	TWA
Benzenamine, 4,4'- Methylenebis [2- Ethyl-	none estab.	none estab.	none estab.	none estab.	0.08 mg/m3
Dibutyl Phthalate	5 mg/m3	none estab.	5 mg/m3	none estab.	none estab.

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

CAUTION:

May be harmful if absorbed through the skin or if swallowed.
May cause target organ damage (animal data)
Possible animal carcinogen

Potential Health Effects

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

Overexposure Effects: Causes eye, skin, and respiratory irritations. May cause allergic skin reaction.
May have an effect on the liver.

Medical Conditions Aggravated by Exposure: Skin and eye conditions.

Chronic Effects: This product contains dibutyl phthalate which may cause adverse reproductive effects in laboratory animals. The relevance to humans is not known.

Carcinogenicity: Contains DeMDA which is a possible animal carcinogen.

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.

Freeman 1060 Hardener Red

Section 5 Fire Fighting Measures

Flash Point: > 200°F (>93°C)

Flash Point Method: estimated

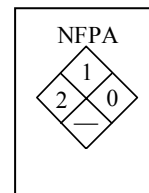
LEL: Not established

UEL: Not established

Extinguishing Media: Foam, water, 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 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. . 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: Thin Red liquid

Vapor Pressure: Not determined

Specific Gravity (H₂O=1, at 4 °C): 1.06

Water Solubility: Slight

Boiling Point: Not determined

Section 10 Stability and Reactivity

Stability: Stable.

Conditions to Avoid: Excessive heat for prolonged period.

Chemical Incompatibilities: Strong oxidizing agents, acids and bases

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

Hazardous Polymerization: Will not occur. Avoid inadvertent mixing with isocyanate materials

Freeman 1060 Hardener Red

Section 11 Toxicological Information

Inhalation: Respiratory Irritant

Skin: Irritant

Eye: Irritant

Sensitization: Possible in susceptible individuals.

Carcinogenicity: Contains DeMDA which is a possible animal carcinogen.

Chronic Exposure effects: Materials similar to DeMDA have caused tumors in rodents and damage to both the liver and thyroid in test animals.

Dibutyl phthalate may cause reproductive effects in laboratory animals, effects on humans is undetermined.

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: Environmentally hazardous substance, liquid, n.o.s.

Technical Shipping Name (if n.o.s) Dibutyl Phthalate, Diethyl methylene dianiline

Hazard Class: 9

ID No.: UN 3082

Packing Group: III

Label: Marine Pollutant

Note: Under 49 CFR 171.4 (c) NONBULK shipments of marine pollutants are not regulated for transport by motor vehicles, rail cars or aircraft. NONBULK shipments of marine pollutants are regulated when transported by vessel (ship).

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): 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.

Dibutyl Phthalate (CAS # 84-72-2) Percent in Composition: 30-60% by weight

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

Freeman 1060 Hardener Red

Section 15 Regulatory Information continued

State Regulations:

California Proposition 65: The following is required composition information. This product contains dibutyl phthalate which is on the list as a reproductive hazard.

State Lists: Dibutyl phthalate (CAS # 84-74-2) is on the following state Right to Know Lists: Pennsylvania, New Jersey, Massachusetts

Section 16 Other Information

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