

Material Safety Data Sheet

Freeman 1035 part A

Date of Preparation: February 10, 2012

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman 1035 part A
Chemical Family: Isocyanate
CAS Number: N/A
Other Designations: N/A
General Use: Epoxy Curing Agent
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
Polyurethane Prepolymer	Proprietary
Bis (2-ethylhexyl) phthalate	117-81-7
2,4 Toluene Diisocyanate	584-84-9
2,6 Toluene Diisocyanate	91-08-7

Ingredient	OSHA PEL		ACGIH TLV	
	TWA	STEL	TWA	STEL
Polyurethane Prepolymer	none estab.	none estab.	none estab.	none estab.
Bis (2-ethylhexyl) phthalate	5 mg/m3	none estab.	5 mg/m3	none estab.
2,4 Toluene Diisocyanate	0.005 ppm	none estab.	0.005 ppm	none estab.
2,6 Toluene Diisocyanate	0.005 ppm	none estab.	0.005 ppm	none estab.

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Irritant

Potential Health Effects

Primary Entry Routes: Inhalation and Dermal

Target Organs: Lungs, skin

Acute Effects

Inhalation: Vapors cause irritation to respiratory tract and pulmonary edema can occur after a serious vapor exposure; pulmonary sensitization can occur in some individuals leading to asthma-like spasms of the bronchial tubes and difficulty in breathing; recent studies indicate overexposure with chronic lung impairment.

Eye: May cause irritation, redness, tearing, and blur vision. Prolonged vapor contact may cause conjunctivitis.

Skin: Contact will cause irritation, reddening, swelling, rash, scaling, or blistering. Prolonged or repeated contact can cause moderate dermatitis.

Ingestion: May have corrosive effects on the linings of the mouth and stomach: symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.

Carcinogenicity: IARC and NTP list Toluene Diisocyanate and Bis (2-ethylhexyl) phthalate as a suspected carcinogens.

Medical Conditions Aggravated by Long-Term Exposure: Asthma, bronchitis, emphysema, skin allergies, eczema



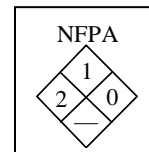
Freeman 1035 part A

Section 4 First Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen and/or artificial respiration.
Eye Contact: Check for and remove contact lenses 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: Do not induce vomiting. Get medical attention.

Section 5 Fire Fighting Measures

Flash Point: >270°F (>132 °C)
Flash Point Method: PMCC
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 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. . 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: Clear yellow liquid
Vapor Pressure: < 1 mm Hg @ 70°F
Specific Gravity (H₂O=1, at 4 °C): 1.04

Water Solubility: Negligible
Boiling Point: Not determined
% Volatile: Not determined
Evaporation Rate: Not determined

Freeman 1035 part A

Section 10 Stability and Reactivity

Stability: Stable.

Conditions to Avoid: Excessive heat for prolonged period.

Chemical Incompatibilities: Strong oxidizing agents, water, and materials that react with amines.

Hazardous Decomposition Products: Combustion may form toxic materials, such as carbon dioxide, carbon monoxide and nitrogen oxides

Hazardous Polymerization: Will not occur. Avoid inadvertent mixing with isocyanates

Section 11 Toxicological Information

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

Skin: Irritation:

Eye: Irritation:

Carcinogenicity: : IARC and NTP list Toluene Diisocyanate and Bis (2-ethylhexyl) phthalate as a suspected 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.

Hazard Class: Not 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).

CERCLA Hazardous Substance (40 CFR 302.4) listed specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec.

307(a), CAA, Sec. 112

<u>Chemical Name</u>	<u>RQ</u>	<u>% Reportable Component</u>
2,4 diisocyanatomethyl benzene	100 lbs.	<1.0
1,2 benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester	100lbs.	5.0 Max

SARA Toxic Chemical (40 CFR 372.65):

<u>Chemical Name</u>	<u>CAS #</u>	<u>% by Weight</u>
Toluene-2, 4 -Diisocyanate	584-84-9	<1.0
Toluene-2, 6 -Diisocyanate	91-08-7	<1.0

Freeman 1035 part A

Section 15 Regulatory Information cont.

SARA EHS (Extremely Hazardous Substance) (40 CFR 355):

<u>Chemical Name</u>	<u>TPQ</u>	<u>% Reportable Component</u>
2,4 Toluene Diisocyanate	500 lbs.	<1.0
2,6 Toluene Diisocyanate	500 lbs.	<1.0

This product contains the following chemicals that are subject to release reporting requirements under section 313 of SARA Title III.

<u>Chemical Name</u>	<u>CAS #</u>	<u>% by Weight</u>
1,2 Benzenedicarboxylic acid, [Bis (2-ethylhexyl)] ester	117-81-7	5.0 Max
Toluene-2, 4 -Diisocyanate	584-84-9	<1.0
Toluene-2, 6 -Diisocyanate	91-08-7	<1.0

SARA 311/312 Codes:

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

State Regulations:

California Proposition 65: This product contains toluene diisocyanate and Bis (2-ethylhexyl) phthalate, which in the State of California have found to cause cancer, birth defects or other reproductive harm.

2,4 Toluene Diisocyanate (CAS # 584-84-9) and 2,6 Toluene Diisocyanate (CAS # 91-08-7) are found on the New Jersey, Pennsylvania and Massachusetts Right to Know Lists

Bis (2-ethylhexyl) phthalate (CAS # 117-81-7) is found on the New Jersey, Pennsylvania and Massachusetts 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 1035 part B

Date of Preparation: February 10, 2012

Section 1 Chemical Product and Company Identification

Product/Chemical Name: Freeman 1035 part B
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 Prepolymer	Proprietary
Diethyltoluenediamine	68479-98-1

Ingredient	OSHA		ACGIH	
	PEL	STEL	TLV	STEL
Urethane Polyol	none estab.	none estab.	none estab.	none estab.
Diethyltoluenediamine	none estab.	none estab.	none estab.	none estab.

Section 3 Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

.Harmful by inhalation,

Potential Health Effects

Primary Entry Routes: Inhalation and Dermal

Target Organs: Pancreas, liver, thyroid and eyes

Acute Effects

Inhalation: Vapors cause irritation to respiratory tract and pulmonary edema can occur after a serious vapor exposure; pulmonary sensitization can occur in some individuals leading to asthma-like spasms of the bronchial tubes and difficulty in breathing; recent studies indicate overexposure with chronic lung impairment.

Eye: May cause irritation, redness, tearing, and blur vision..

Skin: Contact will cause irritation, reddening, swelling, rash, scaling, or blistering.

Ingestion: May have corrosive effects on the linings of the mouth and stomach: symptoms can include abdominal pain, nausea, vomiting and diarrhea.

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

Section 4 First Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen and/or artificial respiration. Contact a physician immediately

Eye Contact: Check for and remove contact lenses. Flush with plenty of water for 15 minutes and get medical attention.

Freeman 1035 part B

Section 4 First Aid Measures cont.

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: >270°F (>132 °C)

Flash Point Method: TOC

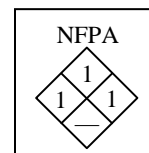
LEL: Not established

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, amber to reddish brown with pungent odor

Vapor Pressure: Not determined

Vapor Density (Air=1): Not determined

Specific Gravity (H₂O=1, at 4 °C): 0.95

Water Solubility: Negligible

Boiling Point: Not determined

% Volatile: Nil

Evaporation Rate: Not determined

Freeman 1035 part B

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, water acids, metal-organic compounds.

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

Hazardous Polymerization: Can 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.

Ingestion: May cause abdominal pain, nausea vomiting and diarrhea

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 listed

SARA 311/312 Codes:

SARA Toxic Chemical (40 CFR 372.65): None listed

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

State Regulations: None 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.