

Material Safety Data Sheet

Freeman 1080 SLOW Part A

MSDS No.

Date of Preparation: January 3, 2007

Revision:

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Freeman 1080 SLOW Part A

Chemical Family: Isocyanate

CAS Number: N/A

Other Designations: N/A

General Use: Polyurethane Elastomer

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 ☆☆☆☆☆

Irritant, possible Sensitizer

Moisture Sensitive

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt
4,4' Methylene bis(phenylisocyanate)	101-68-8	65 - 70

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

Section 3 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear yellow to slightly turbid

Odor: Musty odor

Viscosity: 150-250 cps

Vapor Pressure: <0.00001 mm Hg at 25 °C

Vapor Density (Air=1): 8.6

Specific Gravity (H₂O=1, at 4 °C): 1.18

pH: N/A

Water Solubility: Reacts with water

Other Solubilities: N/A

Boiling Point: 392 °F (200 °C)

Freezing/Melting Point: None Determined

% Volatile: Nil

Evaporation Rate: Not Applicable

Section 4 - Fire-Fighting Measures

Flash Point: 390 °F (199°C)

Flash Point Method: COC

Burning Rate: Not established

Autoignition Temperature: Not established

LEL: Not established

UEL: Not established

Flammability Classification: Non-Flammable

Extinguishing Media: Water Fog, Dry Chemical, and Carbon Dioxide Foam

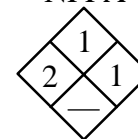
Unusual Fire or Explosion Hazards: Hazardous decomposition products may be formed. Avoid water contamination in closed containers or confined areas as exothermic heat and carbon dioxide can evolve.

Hazardous Combustion Products: N/A

Fire-Fighting Instructions: Fire fighters should wear self-contained breathing apparatus. Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

NFPA



Section 5 - 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.

Hazardous Decomposition Products: MDI vapors, hydrogen cyanide gas, oxides of nitrogen, carbon monoxide and carbon dioxide.

Section 6 - Health Hazard Information

Potential Health Effects

Primary Entry Routes: Inhalation and Dermal

Target Organs: Lungs, skin

Acute Effects

Inhalation: Vapors are minimal due to low vapor pressure; if sprayed as an aerosol excessive concentrations are attainable that could be hazardous on single exposure. Excessive exposure can cause irritation to respiratory tract and irritation of the eyes.

Effects may be delayed. Decreased ventilatory capacity has been associated with exposure to similar isocyanates.

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

Medical Conditions Aggravated by Long-Term Exposure: skin allergies and respiratory disorders

Emergency and First Aid Procedures

Inhalation: Remove sources(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse: seek medical attention if rash develops.

Ingestion: Do not induce vomiting unless instructed by a physician. Contact physician immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 7 - Spill, Leak, and Disposal Procedures

Spill /Leak Procedures: Only properly protected personnel should remain in the spill area; dike and contain spill; absorb or scrape up excess into suitable container for disposal; wash area with dilute ammonia solution. Stop or reduce discharge if it can be done safely.

Small Spills:

Large Spills

Containment: For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Cleanup:

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

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

Disposal Regulatory Requirements: This material must be disposed of in accordance with applicable Federal, state and local regulations.

Toxicological Information: **Eye Effects:** Irritation
Skin Effects: Irritation

Mutagenicity: None Determined
Teratogenicity: None Determined

Ecological Information: None established

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

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: None

Clean Air Act: SOCM Chemical: 4,4' Methylene bis(phenylisocyanate)

Hap Code: XOV

SARA Toxic Chemical (40 CFR 372.65):

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

4,4' Methylene bis(phenylisocyanate) (CAS #101-68-8)70% by wt. Max

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): None

TSCA Inventory Status (40 CFR710): All components of this formulation are listed in the TSCA Inventory.

State Regulations:

California Proposition 65: This product does not intentionally contain any chemicals which have been identified by the state of California to cause cancer, birth defects, or other reproductive harm.

4,4' Methylene bis(phenylisocyanate) CAS #101-68-8 is on the Pennsylvania and New Jersey Right to Know Lists

Section 8 - Exposure Controls / Personal Protection

Engineering Controls:

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls:

Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or nonroutine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. **Protective Clothing/Equipment:** Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

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 - Special Precautions and Comments

Handling Precautions: Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Avoid moisture contamination. Reseal partial containers. Use good general housekeeping procedures.

Storage Requirements: Store in cool, dry, well-ventilated area.

DOT Transportation Data (49 CFR 172.101): Not Classified

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.