

Safety Data Sheet Freeman 1050 Part A (Resin)



Section 1 Identification

Product identifiers

Product name: Freeman 1050 Part A (Resin)

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Polyurethane elastomer Details of the supplier of the safety data sheet Freeman Manufacturing and Supply Company

1101 Moore Road, Avon, OH 44011

Telephone (440) 934-1902

HMIS				
Н	3			
F	1			
R	1			
PPE				
Sec. 8				

24 Hour emergency telephone number: CHEMTREC (800) 424-9300

Section 2 Hazards Identification

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Acute Toxicity, Inhalation, Category 3 Respiratory Sensitization, Category 1 Skin Sensitization, Category 1

Chronic Aquatic Toxicity, Category 3

GHS Label elements, including precautionary statements





Signal word

Danger

Hazard Statements

Toxic if inhaled.

May cause allergy, asthma symptoms, or breathing difficulties if inhaled.

May cause an allergic skin reaction.

Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention

Keep container tightly closed when not in use.

Wear protective gloves/eye protection/face protection.

Avoid breathing mist, vapors or spray.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

In case of inadequate ventilation wear respiratory protection.

Avoid release to the environment.

Response

If on skin: Wash with plenty of soap and water.

If inhaled: If breathing is difficult, remove to fresh air and keep at rest in a position

comfortable for breathing. Contact a poison center or a physician.

If experiencing respiratory symptoms: Get medical advice/attention.



Freeman 1050 Part A (Resin)

Section 2 Hazards Identification continued

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Storage

Store in a well-ventilated place. Keep cool.

Disposal

Dispose of contents and container to an appropriate waste site in accordance with local and national regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS

None known

Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
3-Isocyanatomethyl-3,5,5-Trimethylcyclohexyl Isocyanate	4098-71-9	3 - 7
4,4'Methylenedicyclohexyl Diisocyanate	5124-30-1	1 - 3

Section 4 First Aid Measures

Description of first aid measures

If inhaled

Move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

In case of eye contact

Flush eyes with water for at least 15 minutes. Get medical attention immediately.

If swallowed

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.

Most important symptoms and effects, both acute and delayed

Inhalation: No specific data.
Ingestion: No specific data.
Skin contact: No specific data.
Eye contact: No specific data

Indication of any immediate medical attention and special treatment needed

Inhalation: No specific data. Ingestion: No specific data. Skin contact: No specific data. Eye contact: No specific data.

Notes to physician: Symptomatic treatment and supportive therapy as indicated.

Section 5 Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media: High volume water jet.



Freeman 1050 Part A (Resin)

Section 5 Fire-Fighting Measures continued

Special hazards arising from the substance or mixture

Nature of decomposition products not known.

Hazardous thermal decomposition products

Carbon dioxide, carbon monoxide

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Dike and contain spill. Wipe up with absorbent material. Keep in suitable, closed containers for disposal.

Section 7 Handling and Storage

Precautions for safe handling

Do not breathe fumes or vapor. Do not allow material to contact skin.

Provide appropriate exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Store at ambient temperatures in closed containers. Do not heat this material above the flash point. Avoid strong acids, strong bases, and strong oxidizing agents.

Section 8 Exposure Controls/Personal Protection

Components with workplace control parameters

Ingredient	OSHA		ACGIH	
	PEL	STEL	TWA	STEL
3-Isocyanatomethyl-3,5,5- trimethylcyclohexylisocyanate	0.005 ppm	0.02 ppm	.005 ppm	None established
4,4'Methylenedicyclohexyl Diisocyanate	0.01 ppm	None established	.005 ppm	None established

Exposure controls

Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.

Personal protective equipment

Eye/face protection

Use safety glasses equipped with side shields.



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Section 8 Exposure Controls/Personal Protection continued

Skin protection

Hand protection

Use butyl-rubber, nitrile rubber, or other solvent-resistant gloves.

Contaminated gloves should be replaced.

Body protection

Prevent skin contact when handling material.

Respiratory protection

The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.

Safety stations

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

General hygienic practices

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

Appearance Amber liquid

Odor Slight

Odor threshold No data available рH No data available **Boiling point** No data available Flash point (Pensky-Martens) >149°C (>300°F) **Evaporation rate** No data available Flammability (solid, gas) No data available Upper/lower flammability No data available Vapor Pressure No data available Vapor density No data available

Relative density (g/cc) 1.04

Water Solubility Reacts violently with water

Coefficient: n-octanol/waterNo data availableAuto-ignition temperatureNo data availableDecomposition temperatureNo data availableViscosityNo data available

Section 10 Stability and Reactivity

Reactivity

Stable under recommended storage conditions.

Chemical stability

No decomposition if stored and applied as directed.

Possibility of hazardous reactions

Avoid contact with moisture or other materials that react with isocyanates.



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Section 10 Stability and Reactivity continued

Conditions to avoid

No data available

Incompatible materials

No data available

Hazardous decomposition products

Thermal oxidative decomposition can produce carbon oxides, nitrogen oxides, and traces of hydrogen cyanide.

Section 11 Toxicological Information

Information on toxicological effects

Acute oral toxicity>5,000 mg/kg (calculated)Acute inhalation toxicity0.61 mg/l: 4 h (calculated)

Acute dermal toxicity
Skin corrosion/irritation
Serious eye damage/eye irritation
No data available
No data available

Respiratory or skin sensitization Skin sensitizer and respiratory sensitizer

Germ cell mutagenicity No data available

Carcinogenicity

IARC No component of this product present at levels greater than or equal to 0.1%

is identified as a probable, possible, or confirmed carcinogen.

ACGIH No component of this product present at levels greater than or equal to 0.1%

is identified as a carcinogen or potential carcinogen.

NTP No component of this product present at levels greater than or equal to 0.1%

is identified as a known or anticipated carcinogen.

OSHA No component of this product present at levels greater than or equal to 0.1%

is identified as a carcinogen or potential carcinogen.

Reproductive toxicityNot expected to be a hazard

Specific target organ toxicity

- **single exposure** No data available

Specific target organ toxicity

- repeated exposure No data available

Section 12 Ecological Information

ToxicityNo data availablePersistence and degradabilityNo data availableBioaccumulative potentialNo data availableMobility in soilNo data availableResults of PBT & vPvB assessmentNo data available

Section 13 Disposal Considerations

Contact a licensed disposal company for detailed recommendations. Follow applicable Federal. State. and local regulations.



Safety Data Sheet Freeman 1050 Part A (Resin)

Section 14 Transport Information

DOT: Not Regulated **IMDG:** Not Regulated **IATA:** Not Regulated

Section 15 Regulatory Information

US Federal Regulations

SARA 311/312 Codes: No SARA Hazards SARA 313 Toxic Chemical (40 CFR 372.65):

4,4'Methylenedicyclohexyl Diisocyanate (CAS# 5124-30-1)

3-Isocyanatomethyl-3,5,5-Trimethylcyclohexyl Isocyanate (CAS # 4098-71-9)

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

Clean Air Act: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

US State Regulations

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Pennsylvania Right to Know List: Oxirane, 2-methyl-, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,4-butanediyl), 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 1,1'-methylenebis(4-isocyanatocyclohexane) and oxirane (119185-07-8) and 3-Isocyanatomethyl-3,5,5-trimethylcyclohexylisocyanate (4098-71-9)

Canadian Regulations

This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL. Oxirane, methyl-, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,4-butanediyl), 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimet

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.



Freeman 1050 Part B (Hardener)

Section 1 Identification

Product identifiers

Product name: Freeman 1050 Part B (Hardener)

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Component of a polyurethane system

Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company

1101 Moore Road, Avon, OH 44011

Telephone (440) 934-1902

ly Company Sec. 8

24 Hour emergency telephone number: CHEMTREC (800) 424-9300

Section 2 Hazards Identification

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Acute Oral Toxicity, Category 4

Skin Sensitization, Category 1

Germ Cell Mutagenicity, Category 2

Carcinogenicity, Category 2

Reproductive Toxicity, Category 1B

Specific Target Organ Toxicity, single exposure, oral (liver), Category 2

Specific Target Organ Toxicity, repeated exposure, oral (liver), Category 1

Specific Target Organ Toxicity, repeated exposure, oral (kidneys), Category 2

Acute Aquatic Hazard, Category 1

Chronic Aquatic Hazard, Category 1

GHS Label elements, including precautionary statements







Signal word

Danger

Hazard Statements

Harmful if swallowed.

May cause an allergic skin reaction.

Suspected of causing cancer.

May damage fertility or the unborn child.

Suspected of causing genetic defects.

May cause damage to organs if swallowed (liver).

Causes damage to organs through prolonged or repeated exposure if swallowed (liver).

May causes damage to organs through prolonged or repeated exposure if swallowed (kidneys).

Very toxic to aquatic life with long lasting effects.

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Freeman 1050 Part B (Hardener)

Section 2 Hazards Identification continued

Precautionary Statements

Prevention

Do not eat, drink or smoke when using this product.

Use in a well ventilated area.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

Do not breathe vapor.

Wash hands thoroughly after handing.

Contaminated work clothing should not be allowed out of the workplace.

Collect spillage.

Response

If exposed or concerned: Get medical advice/attention.

If swallowed, call a poison center or physician, if you feel unwell.

Rinse mouth.

If on skin: Wash with plenty of soap and water. Wash contaminated clothing before reuse.

If skin irritation or rash occurs, get medical attention.

Storage

Store in a well-ventilated place. Keep cool.

Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS

None known

Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
Butyl benzyl phthalate	85-68-7	60 - 100
Diethyl methylene dianiline	19900-65-3	13 - 30
Dibutyl phthalate	84-74-2	0.1 - 1

Section 4 First Aid Measures

Description of first aid measures

If inhaled

Move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention.

In case of eye contact

Flush eyes with water for at least 15 minutes. Get medical attention.

If swallowed

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.



Safety Data Sheet Freeman 1050 Part B (Hardener)

Section 4 First Aid Measures continued

Most important symptoms and effects, both acute and delayed

Eye contact: No specific data **Inhalation:** No specific data

Skin contact: May cause an allergic skin reaction

Ingestion: Harmful if swallowed

Indication of any immediate medical attention and special treatment needed

Inhalation: No specific data
Ingestion: No specific data
Skin contact: Irritation, redness
Eye contact: No specific data

Notes to physician: Symptomatic treatment and supportive therapy as indicated.

Section 5 Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media: High volume water jet.

Special hazards arising from the substance or mixture

Do not allow run-off from firefighting to enter drains or water courses.

Hazardous thermal decomposition products

Carbon dioxide, carbon monoxide

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Collect contaminated fire extinguishing water separately.

Do not discharge into drains. Dispose of in accordance with local regulations.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains. If product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up

Dike and contain spill. Soak up with inert absorbent material (e.g. sand, silica gel, sawdust). Keep in suitable, closed containers for disposal.

Section 7 Handling and Storage

Precautions for safe handling

Do not breathe fumes or vapor. Do not allow material to contact skin. See section 8 for personal protective equipment. Provide appropriate exhaust ventilation.



Freeman 1050 Part B (Hardener)

Section 7 Handling and Storage continued

Conditions for safe storage, including any incompatibilities

Store at ambient temperatures in closed containers. Do not heat this material above the flash point. No chemical incompatibilities.

Section 8 Exposure Controls/Personal Protection

Components with workplace control parameters

Ingredient	OSHA		AC	GIH
	PEL	STEL	TWA	STEL
Dibutyl phthalate	5 mg/m ³	None established	5 mg/m ³	None established

Exposure controls

Appropriate engineering controls

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protective equipment

Eye/face protection

Use safety goggles.

Skin protection

Hand protection

Use impervious gloves. Discuss suitability with manufacturer of gloves.

Contaminated gloves should be replaced.

Body protection

Prevent skin contact when handling material. Wear impervious clothing.

Respiratory protection

The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.

Safety stations

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

General hygienic practices

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

AppearancePink liquidOdorNo data availableOdor ThresholdNo data availablepHNo data availableVOCNo data available



Freeman 1050 Part B (Hardener)

Section 9 Physical and Chemical Properties continued

No data available Freezing point **Boiling point** No data available Flash point (Pensky-Martens) >93°C (>200°F) **Evaporation rate** No data available Flammability (solid, gas) No data available Upper/lower flammability No data available Vapor pressure No data available Vapor density No data available

Relative density (g/cc) 1.1

Water solubility
Coefficient: n-octanol/ water
Auto-ignition temperature
Decomposition temperature

Slightly soluble
No data available
No data available

Viscosity 2,000 cP at room temperature

Explosive PropertiesOxidizing Properties
% Volatile
None
5-10%

Section 10 Stability and Reactivity

Reactivity

Stable under recommended storage conditions.

Chemical stability

No decomposition if stored and applied as directed.

Possibility of hazardous reactions

None known.

Conditions to avoid

Heat and open flames

Incompatible materials

None known.

Hazardous decomposition products

Thermal oxidative decomposition can produce carbon oxides.

Section 11 Toxicological Information

Information on toxicological effects

Acute oral toxicityNo data availableAcute inhalation toxicityNo data availableAcute dermal toxicityNo data available

Skin corrosion/irritation Serious eye damage/eye irritation Respiratory or skin sensitizationNon-irritating to the skin.
Non-irritating to the eyes.
May cause skin sensitization

Germ cell mutagenicity May be genotoxic (4,4'-methylenebis(2-ethylaniline))



Safety Data Sheet Freeman 1050 Part B (Hardener)

Section 11 Toxicological Information continued

Carcinogenicity

IARC Butyl benzyl phthalate is considered group 3, not classifiable as a human

carcinogen.

ACGIH No component of this product present at levels greater than or equal to 0.1%

is identified as a carcinogen or potential carcinogen.

NTP No component of this product present at levels greater than or equal to 0.1%

is identified as a known or anticipated carcinogen.

OSHA No component of this product present at levels greater than or equal to 0.1%

is identified as a carcinogen or potential carcinogen.

Reproductive toxicity Dibutyl phthalate has tested positive for both reproductive

toxicity and causing birth defects (animal data only)

STOT - single exposure (Specific Target Organ Toxicity) Liver

STOT - repeated exposure (Specific Target Organ Toxicity) Liver and Kidneys

Aspiration toxicity No data available

Section 12 Ecological Information

ToxicityNo data availablePersistence and degradabilityNo data availableBioaccumulative potentialNo data availableMobility in soilNo data availableResults of PBT & vPvB assessmentNo data available

Section 13 Disposal Considerations

Contact a licensed disposal company for detailed recommendations. Follow applicable Federal, State, and local regulations.

Section 14 Transport Information

DOT: Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Butyl Benzyl

Phthalate, Diethyl Methylene Dianiline)

Hazard Class: 9
ID No.: UN 3082
Packing Group: III
Label: Marine Pollutant

IATA: Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Butyl Benzyl

Phthalate, Diethyl Methylene Dianiline)

Hazard Class: 9
ID No.: UN 3082
Packing Group: III
Label: Marine Pollutant



Safety Data Sheet Freeman 1050 Part B (Hardener)

Section 14 Transport Information continued

IMDG: Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Butyl Benzyl

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

SARA 311/312 Codes: Acute Health Hazard, Chronic Health Hazard SARA 313 Toxic Chemical (40 CFR 372.65): No ingredients listed

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

Clean Air Act – Ozone Depleting Substances (ODS): This product does not contain nor is it manufactured with ozone depleting substances.

US State Regulations

Canadian Regulations

CEPA DSL: All components are listed or exempted.

Section 16 Other Information

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