

**Section 1 Identification**

**Product Identifiers**

Freeman 2095 Resin

**Relevant Identified uses of the Substance or Mixture and uses Advised Against**

Resin component of semi-rigid polyurethane elastomer. For industrial/professional use only.

**Details of the Supplier of the Safety Data Sheet**

Freeman Manufacturing & Supply Company  
1101 Moore Road, Avon, OH 44011-4043 USA  
Telephone: +1 (440) 934-1902  
Email: contactus@freemansupply.com

**24 Hour Emergency Number:**  
**CHEMTREC (800) 424-9300**

**Section 2 Hazards Identification**

**GHS Classification in Accordance with 29 CFR 1910.1200 (OSHA HCS)**

Acute Toxicity (Inhalation), Category 2  
Skin Irritation, Category 2  
Respiratory Sensitization, Category 1  
Skin Sensitization, Category 1  
Specific Target Organ Toxicity - Single Exposure, Category 3

**Label Elements**



Danger

**Hazard Statements**

H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H330 Fatal if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.

**Precautionary Statements**

P260 Do not breathe fumes, vapors, mists or sprays.  
P264 Wash thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing must not be allowed out of the workplace.  
P280 Wear protective gloves.  
P284 In case of inadequate ventilation, wear respiratory protection.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P316 Get emergency medical help immediately.  
P319 Get medical help if you feel unwell.  
P333+P317 If skin irritation or rash occurs: Get medical help.  
P342+P316 If experiencing respiratory symptoms: Get emergency medical help immediately.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents and container in

### Section 2 Hazards Identification

#### Supplemental Information

This is one part of a two-part system. Read and understand the hazard information on Part B before using.

### Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
4,4'-Methylenedicyclohexyl diisocyanate	5124-30-1	30-40

Other ingredients are not listed because they are either not hazardous or are below cut-off/concentration thresholds.

### Section 4 First Aid Measures

#### Description of First Aid Measures

**Eye Contact:** Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Remove contact lenses if safe and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

**Skin Contact:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if symptoms develop or persist. Wash contaminated clothing before reuse. Discard clothing that cannot be decontaminated.

**Inhalation:** Remove person to fresh air. Get medical attention immediately.

**Ingestion:** Do not induce vomiting unless instructed to do so by a medical professional. Get medical attention if you feel unwell.

#### Most Important Symptoms/Effects

Fatal if inhaled.

#### Indication of Immediate Medical Attention/Special Treatment

Get immediate medical attention if inhaled.

### Section 5 Fire-Fighting Measures

#### Extinguishing Media

Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream.

Solid stream of water into hot product may cause violent steam generation or spread fire.

#### Special Hazards

Not classified as flammable or combustible. Product will burn under fire conditions. Combustion products include oxides of carbon, phenolics, aldehydes and other toxic organic compounds.

#### Special Protective Equipment & Precautions for Fire-Fighters

Wear positive pressure, self-contained breathing apparatus, and full-body protective clothing.

### Section 6 Accidental Release Measures

#### Personal Precautions, Protective Equipment, and Emergency Procedures

Clear unnecessary, unprotected personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors.

#### Methods and Material for Containment and Cleanup

Cover with an inert absorbent material and collect into an appropriate container for disposal.

Avoid releases to the environment.

#### Section 7 Handling and Storage

**Precautions for Safe Handling**

Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke in the work area. Keep container closed when not in use.

**Safe Storage**

Store indoors at temperatures below 120°F (49°C). Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed. Store locked up.

#### Section 8 Exposure Controls/Personal Protection

**Occupational Exposure Limits**

None established

**Ventilation**

Use with adequate general or local exhaust ventilation to minimize exposure levels.

**Personal Protective Equipment**

**Respiratory Protection:** If needed, an approved respirator with organic vapor cartridges may be used. Respirator selection and use should be based on contaminant type, form, and concentration. For higher exposures or in an emergency, use a supplied-air respirator. Use respirators in accordance with OSHA's Respiratory Protection Standard (29 CFR 1910.134).

**Skin Protection:** Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection:** Wear chemical safety glasses/goggles.

**Other Protective Measures**

Prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good Industrial Hygiene practice.

#### Section 9 Physical and Chemical Properties

<b>Appearance</b>	Colorless liquid
<b>Odor</b>	Slight
<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting Point</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash Point</b>	>200°C (>392°F)
<b>Evaporation Rate</b>	No data available
<b>Flammability Limits</b>	No data available
<b>Vapor Pressure</b>	≤ 0.00048 mm Hg at 20°C
<b>Vapor Density</b>	No data available
<b>Relative Density</b>	1.03
<b>Solubility</b>	Nil to slightly soluble in water
<b>Coefficient: n-Octanol/Water</b>	No data available
<b>Auto-Ignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	3,690 cP at 25°C

#### Section 10 Stability and Reactivity

**Reactivity**

Not normally reactive.

#### Section 10 Stability and Reactivity

**Chemical Stability**

Stable under recommended conditions.

**Possibility of Hazardous Reactions**

Masses of  $\geq 1$  lb. (0.5 kg) plus aliphatic amine will cause irreversible polymerization with considerable heat build-up. Material will polymerize with sodium hydroxide.

**Conditions to Avoid**

Avoid excessive heat.

**Incompatible Materials**

Avoid contact with strong acids, bases, oxidizing agents, and amines.

**Hazardous Decomposition Products**

Carbon monoxide, carbon dioxide, and oxides of nitrogen.

#### Section 11 Toxicological Information

**Acute Toxicity Values**

Ingredient Name	LC <sub>50</sub> Inhalation (Rat)	LD <sub>50</sub> Oral (Rat)	LD <sub>50</sub> Dermal (Rat)
4,4'-Methylenedicyclohexyl diisocyanate	0.33 mg/L (4 hrs.)	18,200 mg/kg	>7,000 mg/kg

**Acute Health Effects**

**Eye Contact:** May cause mild eye irritation.

**Skin Contact:** Causes skin irritation. May cause an allergic skin reaction.

**Inhalation:** Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Ingestion:** No data available.

**Chronic Health Effects**

**Respiratory Sensitization:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Components are not classified as mutagens.

**Carcinogenicity:** Components are not classified as carcinogens.

**Reproductive Toxicity:** Components are not classified as reproductive toxins.

**Specific Target Organ Toxicity:** May cause respiratory irritation, drowsiness, or dizziness.

#### Section 12 Ecological Information

**Ecotoxicity**

Ingredient Name	LC <sub>50</sub> 96 hrs. (Brachydanio Rerio)	EC <sub>50</sub> 48 hrs. (Daphnia Manga)	ErC <sub>50</sub> 72 hrs. (Scenedesmus Subspicatus)	EC <sub>50</sub> 3 hrs. (Pseudomonas Putida)
4,4'-Methylenedicyclohexyl diisocyanate	8.1 mg/L	8.3 mg/L	5.0 mg/L	191 mg/L

**Persistence and Degradability**

Chemical Name	Test	Period	Result
4,4'-Methylenedicyclohexyl diisocyanate	Aerobic (Directive 92/69/EEC)	28 Days	0%

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#### Section 12 Ecological Information

##### Bioaccumulative Potential

Chemical Name	Test	Result	Potential
4,4'-Methylenedicyclohexyl diisocyanate	Calculated (BCF)	10.186	Not Expected

##### Mobility in Soil

Chemical Name	Soil/Water Partition Coefficient (K <sub>oc</sub> )
4,4'-Methylenedicyclohexyl diisocyanate	110-672

#### Section 13 Disposal Considerations

Dispose according to local, state, and federal regulations. Do not dump in drains or sewers.

#### Section 14 Transport Information

##### DOT/IMDG

Not regulated for transport

##### IATA

UN3334, Aviation regulated liquid, n.o.s. (dicyclohexylmethane-4-4'-diisocyanate), 9, III.

#### Section 15 Regulatory Information

##### U.S. Federal Regulations

**CERCLA 103 Reportable Quantity:** This product is not subject to reporting under CERCLA. Some states have more stringent reporting requirements.

**SARA Title III, Section 311/312:** See Section 2

**Section 313 Toxic Chemicals:** This product contains 1,1-Methylenebis(4-isocyanatocyclohexane) (CAS 5124-30-1) 30-40%

**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All components in this product are listed on TSCA.

##### U.S. State Regulations

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

##### REACH

**Annex XIV List of substances subject to authorization, substances of very high concern:** None of the components are listed.

#### Section 16 Other Information

##### Training Advice

All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

##### Recommended Uses and Restrictions

This product is intended for industrial/professional use only.

**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.

Initial release date: January 28, 2022

Previous revision date: January 28, 2022

Current revision date: February 21, 2025

**Section 1 Identification**

**Product Identifiers**

Freeman 2095 Hardener

**Relevant Identified Uses of the Substance or Mixture**

Hardener component of semi-rigid polyurethane elastomer. For industrial/professional use only.

**Details of the Supplier of the Safety Data Sheet**

Freeman Manufacturing & Supply Company  
1101 Moore Road, Avon, OH 44011-4043 USA  
Telephone: +1 (440) 934-1902  
Email: contactus@freemansupply.com

**24 Hour Emergency Number:**  
**CHEMTREC (800) 424-9300**

**Section 2 Hazards Identification**

**GHS Classification in Accordance with 29 CFR 1910.1200 (OSHA HCS)**

Acute Toxicity (Oral), Category 4  
Acute Toxicity (Dermal), Category 4  
Acute Toxicity (Inhalation), Category 4  
Eye Irritation, Category 2B  
Reproductive Toxin, Category 1B  
Specific Target Organ Toxicity – Single Exposure, Category 3  
Hazardous to the Aquatic Environment – Acute Hazard, Category 1  
Hazardous to the Aquatic Environment – Chronic Hazard, Category 1

**Label Elements**



Danger

**Hazard statements**

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H320 Causes eye irritation.  
H332 Harmful if inhaled.  
H360 May damage fertility or the unborn child.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P203 Obtain, read and follow all safety instructions before use.  
P261 Avoid breathing fumes, vapors, mists or sprays.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink, or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves, protective clothing, eye protection, and face protection.  
P301+P317 IF SWALLOWED: Get medical help.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.

## Safety Data Sheet

### Freeman 2095 Hardener

#### Section 2 Hazards Identification

P317 Get medical help.  
 P318 IF exposed or concerned, get medical advice.  
 P330 Rinse mouth.  
 P337+P317 If eye irritation persists: Get medical help.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P391 Collect spillage.  
 P405 Store locked up.  
 P501 Dispose of contents and container in accordance with local, regional, and national regulations.

#### Supplemental Information

This is one part of a two-part system. Read and understand the hazard information on Part A before using.

#### Section 3 Composition/Information on Ingredients

Ingredient Name	CAS Number	Concentration (%)
4,4'-Methylenebis(2-ethylaniline)	19900-65-3	50-60
n-Butyl phthalate	84-74-2	40-50

Other ingredients are not listed because they are either not hazardous or are below cut-off/concentration thresholds.

#### Section 4 First-Aid Measures

##### Description of First Aid Measures

**Eye Contact:** Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Remove contact lenses if safe and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

**Skin Contact:** Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention immediately. Wash contaminated clothing before reuse. Discard clothing that cannot be decontaminated.

**Inhalation:** Remove person to fresh air. Get medical attention immediately.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Get medical attention immediately.

##### Most Important Symptoms/Effects

Harmful if swallowed, inhaled and in contact with skin.

##### Indication of Immediate Medical Attention/Special Treatment

Get immediate medical attention if swallowed, inhaled, or on skin.

#### Section 5 Fire-Fighting Measures

##### Extinguishing Media

Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or spread fire.

##### Specific Hazards

Not classified as flammable or combustible. Product will burn under fire conditions. Combustion products include oxides of carbon, phenolics, aldehydes and other toxic organic compounds.

##### Special Protective Equipment & Precautions for Fire-Fighters

Wear positive pressure, self-contained breathing apparatus, and full-body protective clothing.



## Safety Data Sheet

### Freeman 2095 Hardener

#### Section 6 Accidental Release Measures

**Personal Precautions, Protective Equipment, and Emergency Procedures**

Clear unnecessary, unprotected personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors.

**Methods and Materials for Containment and Cleanup**

Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment.

#### Section 7 Handling and Storage

**Safe Handling**

Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke in the work area. Keep container closed when not in use.

**Safe Storage**

Store indoors at temperatures below 120°F (49°C). Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed. Store locked up.

#### Section 8 Exposure Controls/Personal Protection

**Occupational Exposure Limits**

None established

**Ventilation**

Use with adequate general or local exhaust ventilation to minimize exposure levels.

**Personal Protective Equipment**

**Respiratory Protection:** If needed, an approved respirator with organic vapor cartridges may be used. Respirator selection and use should be based on contaminant type, form, and concentration. For higher exposures or in an emergency, use a supplied-air respirator. Use respirators in accordance with OSHA's Respiratory Protection Standard (29 CFR 1910.134).

**Skin Protection:** Wear impervious gloves, such as butyl rubber or nitrile rubber.

**Eye Protection:** Wear chemical safety glasses/goggles.

**Other Protective Measures**

Prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good Industrial Hygiene practice.

#### Section 9 Physical and Chemical Properties

<b>Appearance</b>	Amber Liquid
<b>Odor</b>	Slight
<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting/Freezing Point</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash Point</b>	>100°C (>212°F)
<b>Evaporation Rate</b>	No data available
<b>Flammability Limits</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Relative Density</b>	1.06
<b>Solubility</b>	Nil to slightly soluble in water

## Safety Data Sheet

### Freeman 2095 Hardener

#### Section 9 Physical and Chemical Properties

<b>Coefficient: n-Octanol/Water</b>	No data available
<b>Auto-Ignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	170 cP at 25°C

#### Section 10 Stability and Reactivity

**Reactivity**

Not normally reactive.

**Chemical Stability**

Stable under recommended conditions.

**Possibility of Hazardous Reactions**

Exothermic reactions including polymerization may occur in contact with strong acids, strong bases, alcohols, strong oxidizing agents, and excessive heat.

**Conditions to Avoid**

Avoid excessive heat and ignition sources.

**Incompatible Materials**

Avoid contact with strong oxidizing agents, acids, and bases.

**Hazardous Decomposition Products**

Carbon monoxide, carbon dioxide, aldehydes, and oxides of nitrogen.

#### Section 11 Toxicological Information

**Acute Toxicity Values**

Chemical Name	LC <sub>50</sub> Inhalation (Rat)	LD <sub>50</sub> Oral (Rat)	LD <sub>50</sub> Dermal (Rabbit)
Aromatic Diamine	1.5 mg/L	500 mg/kg	1,100 mg/kg
n-Butyl phthalate	4,250 mg/m <sup>3</sup>	8,000 mg/kg	>20,860 mg/kg

**Acute Health Effects**

**Eye Contact:** Causes eye irritation.

**Skin Contact:** Harmful in contact with skin. May cause mild skin irritation.

**Inhalation:** Harmful if inhaled. May cause respiratory irritation.

**Ingestion:** Harmful if swallowed.

**Chronic Health Effects**

**Respiratory Sensitization:** Components are not classified as respiratory sensitizers.

**Skin Sensitization:** Components are not classified as skin sensitizers.

**Germ Cell Mutagenicity:** Components are not classified as mutagens.

**Carcinogenicity:** Components are not classified as carcinogens.

**Reproductive Toxicity:** May damage fertility or the unborn child.

**Specific Target Organ Toxicity:** May cause respiratory irritation, drowsiness or dizziness.

#### Section 12 Ecological Information

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects. Do not release into waterways.

## Safety Data Sheet

### Freeman 2095 Hardener

#### Section 12 Ecological Information

**Persistence and Degradability**

No data available.

**Bioaccumulative Potential**

No data available.

**Mobility in Soil**

No data available.

#### Section 13 Disposal Considerations

Dispose according to local, state, and federal regulations. Do not dump in drains or sewers.

#### Section 14 Transport Information

**DOT**

Non-bulk packages (<119gal or <882lb) are not regulated for transport.

Bulk packages: UN3082, Environmentally hazardous substance, liquid, n.o.s. (4,4'-Methylenebis(2-ethylaniline), dibutyl phthalate), 9, III.

**IATA/IMDG**

UN3082, Environmentally hazardous substance, liquid, n.o.s. (4,4'-Methylenebis(2-ethylaniline), dibutyl phthalate), 9, III, MARINE POLLUTANT.

Excepted from IATA and IMDG regulations if shipped in quantities of 5L (1.32gal) or less. (See IATA SP A197 and IMDG 2.10.2.7).

#### Section 15 Regulatory Information

**U.S. Federal Regulations**

**CERCLA 103 Reportable Quantity:** This product contains n-Butyl phthalate.

Some states have more stringent reporting requirements.


**SARA Title III, Section 311/312:** See Section 2

**Section 313 Toxic Chemicals:** This product contains n-Butyl phthalate (CAS 84-74-2) 40-50%

**Section 302 Extremely Hazardous Substances (TPQ):** None

**EPA Toxic Substances Control Act (TSCA) Status:** All components in this product are listed on TSCA.

**U.S. State Regulations**

California Proposition 65:  WARNING: This product may expose you to chemicals including dibutyl phthalate, which is known to the State of California to cause birth defects or other reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**REACH**

**Annex XIV List of substances subject to authorization, substances of very high concern:** Dibutyl phthalate (CAS 84-74-2)

#### Section 16 Other Information

**Training Advice**

All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

**Recommended Uses and Restrictions**

This product is intended for industrial/professional use only.

**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.

Initial release date: January 28, 2022

Previous revision date: January 28, 2022

Current revision date: February 21, 2025