

Section 1 Identification

Product identifiers

Product name: Freeman 1040 Part A (Resin)

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

HMIS	
H	2
F	1
R	0
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 4

Skin Corrosion/Irritation, Category 2

Eye Damage/Irritation, Category 2A

Respiratory Sensitization, Category 1

Skin Sensitization, Category 1

Specific Target Organ Toxicity, single exposure, Category 3 (Respiratory System)

Acute Aquatic Toxicity, Category 3

Chronic Aquatic Toxicity, Category 2

GHS Label elements, including precautionary statements



Signal word

Danger

Hazard Statements

Causes serious eye irritation.

Harmful if inhaled.

May cause respiratory irritation.

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

Causes skin irritation.

May cause an allergic skin reaction.

May cause damage to organs (nose and respiratory tract) through prolonged or repeated exposure (inhalation).

Harmful to aquatic life.

Toxic to aquatic life with long lasting effects.

Section 2 Hazards Identification continued

Precautionary Statements

Prevention

Keep container tightly closed when not in use.
 Wear protective gloves/eye protection/face protection.
 Avoid breathing mist, vapors or spray.
 Do not eat, drink or smoke when using this product.
 Wash skin and face thoroughly after handling.
 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.

Response

If on skin: Wash with plenty of soap and water.
 If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing.
 If experiencing respiratory symptoms: Get medical advice/attention.
 If in eyes: Rinse continuously with water for at least 15 minutes.
 Remove contact lenses, if present and easy to do.
 If eye irritation persists: Get medical advice/attention.
 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 (%)
Methylene diphenyl diisocyanate	101-68-8	50 - 70
Benzene, 1,1'-methylenebis[isocyanato-homopolymer]	39310-05-9	20 - 30
Terphenyl, hydrogenated	61788-32-7	1 - 5
4, 4'-Diisocyanatodiphenylmethane (mixed isomers)	26447-40-5	1 - 5
Triethyl phosphate	78-40-0	1 - 5
Terphenyl	26140-60-3	0.25 - 1.00

Section 4 First Aid Measures

Description of first aid measures

If inhaled

Move person into fresh air. If symptoms persist call a physician. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water. Take off contaminated clothing and shoes immediately. Get medical attention if symptoms occur.

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Freeman 1040 Part A (Resin)

Section 4 First Aid Measures continued

In case of eye contact

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

If swallowed

Clean mouth with water and drink plenty of water after. Do not give milk or alcoholic beverages. 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.

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

Section 5 Fire-Fighting Measures

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. The pressure in sealed containers can increase under the influence of heat.

Hazardous thermal decomposition products

Carbon dioxide, carbon monoxide, nitrogen oxides, hydrogen cyanide

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. Protect from moisture. Do not heat this material above the flash point. Avoid strong acids, strong bases, strong oxidizing agents, metals, and water.

Safety Data Sheet

Freeman 1040 Part A (Resin)

Section 8 Exposure Controls/Personal Protection

Components with workplace control parameters

Ingredient	OSHA		ACGIH	
	PEL	STEL	TWA	STEL
Methylene diphenyl diisocyanate	0.02 ppm	None established	.005 ppm	None established
Terphenyl, hydrogenated	None established	None established	0.5 ppm	None established
Terphenyl	1 ppm	None established	5 mg/m ³	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. An eye wash station and safety shower should be located near the workstation.

Personal protective equipment

Eye/face protection

Use safety glasses equipped with side shields.

Skin protection

Hand protection

Use butyl-rubber, nitrile rubber, or other solvent-resistant gloves. Contaminated gloves should be replaced.

Body protection

Impervious clothing. 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	Aromatic
Odor threshold	No data available
pH	No data available
Boiling point	No data available
Flash point (closed cup)	>110°C (>230°F)
Evaporation rate	No data available
Flammability (solid, gas)	No data available

Safety Data Sheet

Freeman 1040 Part A (Resin)

Section 9 Physical and Chemical Properties continued

Upper/lower flammability	No data available
Vapor Pressure	0.14633 hPa (71°C)
Relative vapor density	0.01
Relative density (g/cc)	1.17-1.21
Water Solubility	Reacts violently with water
Coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No 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.

Polymerization may occur at temperatures above 350°F.

Conditions to avoid

Heat and open flames.

Incompatible materials

Water, alcohols, amines, bases, and acids.

Hazardous decomposition products

Thermal oxidative decomposition can produce carbon oxides, and nitrogen oxides.

Section 11 Toxicological Information

Information on toxicological effects

Acute oral toxicity	> 5,000 mg/kg (calculation)
Acute inhalation toxicity	1.61 mg/l: 4 h (calculation)
Acute dermal toxicity	No data available
Skin corrosion/irritation	May cause skin irritation and/or dermatitis
Serious eye damage/eye irritation	Vapors may cause irritation
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 toxicity	Not expected to be a hazard

Safety Data Sheet

Freeman 1040 Part A (Resin)

Section 11 Toxicological Information continued	
Specific target organ toxicity - single exposure	May cause respiratory irritation
Specific target organ toxicity - repeated exposure	No data available
Aspiration toxicity	No data available
Section 12 Ecological Information	
Ecotoxicity	No data available on product
Persistence and degradability	No data available on product
Bioaccumulative potential	No data available on product
Mobility in soil	No data available on product
Results of PBT & vPvB assessment	No data available on product
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. (Terphenyl) Hazard Class: 9 ID No.: UN 3082 Packing Group: III Label: Marine Pollutant IATA: Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Terphenyl) Hazard Class: 9 ID No.: UN 3082 Packing Group: III Label: Marine Pollutant IMDG: Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Terphenyl) 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 Hazards: Acute toxicity (Any route of exposure), Skin corrosion or irritation, Serious eye damage or irritation, Respiratory or skin sensitization, Specific target organ toxicity (Single or repeated exposure)	

Safety Data Sheet

Freeman 1040 Part A (Resin)

Section 15 Regulatory Information continued

SARA 313 Toxic Chemical: Methylene diphenyl diisocyanate 101-68-8 50 – 70%

US Clean Air Act, Section 12 (40 CFR 61):

The following chemical is listed as HAP: Methylene diphenyl diisocyanate

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.

Toxic Substances Control Act (TSCA)

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

TSCA 5(a) Significant New Use Rule List of Chemicals: No substances subject.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt D): No substances subject.

Inventories

DSL: All components of this product are on the Canadian DSL

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.

Date of last issue: 08/07/2018

Revision date: 03/05/2019

Safety Data Sheet

Freeman 1040 Part B (Hardener)

Section 1 Identification

Product identifiers

Product name: Freeman 1040 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

HMIS	
H	2
F	1
R	0
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)

Skin Sensitization, Oral, Category 1

GHS Label elements, including precautionary statements



Signal word Warning

Hazard Statements

May cause an allergic skin reaction.

Precautionary Statements

Prevention

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/ protective clothing/ eye protection/face protection.

Response

If on skin: Wash with plenty of soap and water.
If exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.

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

Safety Data Sheet

Freeman 1040 Part B (Hardener)

Section 3 Composition/Information on Ingredients

Hazardous Components

Ingredient Name	CAS Number	Concentration (%)
Bisphenol A epoxy resin	25068-38-6	0.25 - 1
Titanium dioxide	13463-67-7	0.1 - 1
PHENYLMERCURIC SUBSTANCE	Not Assigned	0.1 - 1

Section 4 First Aid Measures

Description of first aid measures

If inhaled

Move person into fresh air. Get medical attention if symptoms occur.

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 if eye irritation persists.

If swallowed

Rinse mouth out with water. 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.

Notes to physician: Treat symptomatically.

Section 5 Fire-Fighting Measures

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

None known.

Hazardous thermal decomposition products

Nature of decomposition products not known

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 sewers/surface or ground water.

Safety Data Sheet

Freeman 1040 Part B (Hardener)

Section 6 Accidental Release Measures continued

Methods and materials for containment and cleaning up

For large spills absorb onto inert absorbent material (e.g. sand, silica gel, sawdust) and place in sealed container for disposal. Dispose of according to Federal, State, and local governmental regulations.

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.

Conditions for safe storage, including any incompatibilities

Store at ambient temperatures in closed containers. No known incompatible materials.

Section 8 Exposure Controls/Personal Protection

Components with workplace control parameters

Component	CAS Number	Value type	Control parameters	Basis
Titanium dioxide	13463-67-7	TWA (total dust)	15 mg/m ³	OSHA Z-1

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.

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.

Freeman 1040 Part B (Hardener)
Section 9 Physical and Chemical Properties

Appearance	White liquid
Odor	Slight
Odor Threshold	No data available
pH	No data available
VOC	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	>190°C (>374°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)	No data available
Water solubility	No data available
Coefficient: n-octanol/ water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No 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

None known.

Conditions to avoid

None known.

Incompatible materials

None known.

Hazardous decomposition products

Thermal oxidative decomposition can produce carbon oxides.

Section 11 Toxicological Information
Information on toxicological effects

Acute oral toxicity	No data available on product itself.
Acute inhalation toxicity	No data available on product itself.
Acute dermal toxicity	No data available on product itself.
Skin corrosion/irritation	Irritating to the skin.
Serious eye damage/eye irritation	May cause eye irritation
Respiratory or skin sensitization	May cause skin sensitization
Germ cell mutagenicity	No data available

Safety Data Sheet

Freeman 1040 Part B (Hardener)

Section 11 Toxicological Information continued

Carcinogenicity

- IARC** Titanium dioxide, Group 2B: Possibly carcinogenic to humans.
- 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 No data available

Specific target organ toxicity
 - single exposure No data available

Specific target organ toxicity
 - repeated exposure No data available

Aspiration toxicity No data available

Section 12 Ecological Information

- Ecotoxicity** No data available on product
- Persistence and degradability** No data available on product
- Bioaccumulative potential** No data available on product
- Mobility in soil** No data available on product
- Results of PBT & vPvB assessment** No data available on product

Section 13 Disposal Considerations

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

Section 14 Transport Information

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

Section 15 Regulatory Information

US Federal Regulations

SARA 311/312 Hazards: Respiratory or skin sensitization

SARA 313 Toxic Chemical: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels.

US Clean Air Act, Section 12 (40 CFR 61):

This product does not contain any hazardous air pollutants (HAP)

California Proposition 65: ⚠️ **WARNING:** This product can expose you to chemicals including titanium dioxide and diisodecyl phthalate (DIDP), which are known to the State of California to cause cancer or birth defects or other reproductive harm.
 For more information go to www.P65Warnings.ca.gov.

Safety Data Sheet
Freeman 1040 Part B (Hardener)

Section 15 Regulatory Information continued

Toxic Substances Control Act (TSCA)

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

TSCA 5(a) Significant New Use Rule List of Chemicals: No substances subject.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt D): No substances subject.

Inventories

DSL: All components of this product are on the Canadian DSL

Section 16 Other Information

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Date of last issue: 08/07/2018

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