

Safety Data Sheet

Synthene 1700 Resin

Date of Preparation: December 1, 2015

Section 1 Chemical Product and Company Identification

1.1 Product identifiers

Product name: Synthene 1700 Resin

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

Identified uses: N/A

1.3 Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company

1101 Moore Road, Avon, OH 44011

Phone (440) 934-1902

FAX (440) 934-7200

1.4 Emergency telephone number

Emergency Phone (800) 424-9300

HMIS

H	3
F	1
R	1

PPE

Sec. 8

Section 2 Hazards Identification

2.1 Classification of the substance or mixture

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

Acute Toxicity (Inhalation), Category 2

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

Respiratory Sensitization, Category 1

Skin Irritation, Category 2

Skin Sensitization, Category 1

Serious Eye Damage/Eye Irritation, Category 2

2.2 GHS Label elements, including precautionary statements



Signal word

Danger

Hazard statements

Toxic 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.

Causes serious eye irritation.

Not classified as an environmental hazard under GHS criteria

Synthene 1700 Resin

Section 2 Hazards Identification cont.

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: If breathing is difficult, remove 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.

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

None

Section 3 Composition/Information on Ingredients

3.1 Substance

Ingredient Name	CAS Number
4,4'-Methylenedicyclohexyl Diisocyanate	5124-30-1

Section 4 First Aid Measures

4.1 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.

Synthene 1700 Resin

Section 4 First Aid Measures cont.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact: Causes eye irritation.

Inhalation: Harmful if inhaled. May cause respiratory irritation.

Skin contact: Causes skin irritation. May cause sensitization by skin contact.

Ingestion: No data available.

4.3 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

5.1 Extinguishing media

Suitable extinguishing media: Use water fog, dry chemical or carbon dioxide foam.

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

5.3 Hazardous Combustion Products

Carbon oxides.

5.4 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.5 Further information

No data available.

Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Dike and contain spill. Absorb material and either sweep up or scrape up. Put into appropriate containers for disposal. Wash area with dilute ammonia solution.

Section 7 Handling and Storage

7.1 Precautions for safe handling

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

Provide appropriate exhaust ventilation.

7.2 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.

Synthene 1700 Resin

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

Ingredient	OSHA PEL	STEL	ACGIH TWA	STEL
4,4' Methylenedicyclohexyl Diisocyanate	None estab.	None estab.	.005 ppm	None estab.

8.2 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.

8.3 Personal protective equipment

Eye/face protection

With product at ambient temperatures, use safety glasses equipped with side shields.

8.4 Skin protection

Hand Protection

With product at ambient temperatures, use disposable nitrile gloves.
Contaminated gloves should be replaced.

Body Protection

Prevent skin contact when handling material.

8.5 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.

8.6 Safety Stations

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

8.7 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

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid
Odor	Mild
Odor Threshold	No data available
pH	No data available
Melting Point	No data available
VOC Content	None
Initial boiling point & boiling range	No data available
Flash Point (COC)	No data available
Evaporation rate	No data available

Synthene 1700 Resin

Section 9 Physical and Chemical Properties cont.

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±0.05
Water Solubility	Insoluble
Coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Viscosity	No data available
Explosive Properties	None
Oxidizing Properties	None
% Volatile	None

Section 10 Stability and Reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

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

Polymerization may occur at temperatures above 350°F.

10.4 Conditions to avoid

Heat and open flames.

10.5 Incompatible materials

Water, alcohols, amines, bases, and acids.

10.6 Hazardous decomposition products

Thermal oxidative decomposition can produce CO, CO₂, oxides of nitrogen and traces of HCN.

Section 11 Toxicological Information

11.1 Information on toxicological effects

Acute Oral toxicity	Low toxicity
Acute Inhalation toxicity	No data available
Acute Dermal toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	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 carcinogen or potential 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.

Synthene 1700 Resin

Section 11 Toxicological Information cont.	
Reproductive toxicity	Not 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	
12.1 Toxicity	No data available
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
12.5 Results of PBT & vPvB assessment	No data available
Section 13 Disposal Considerations	
13.1 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 Shipping Name: aviation regulated liquid, n.o.s.(Dicyclohexylmethane-4,4'-di-isocyanate) Hazard Class: 9 ID No.: 3334 Packing Group: III	
IMDG: Shipping Name: aviation regulated liquid, n.o.s.(Dicyclohexylmethane-4,4'-di-isocyanate) Hazard Class: 9 ID No.: 3334 Packing Group: III	
IATA: Shipping Name: aviation regulated liquid, n.o.s.(Dicyclohexylmethane-4,4'-di-isocyanate) Hazard Class: 9 ID No.: 3334 Packing Group: III	
Section 15 Regulatory Information	
15.1 US Federal Regulations RCRA Hazardous Waste Number (40 CFR 261.33): Not listed RCRA Hazardous Waste Classification (40 CFR 261): Not classified CERCLA Hazardous Substance (40 CFR 302.4): Listed/unlisted specific per RCRA Sec. 3001 SARA 311/312 Codes: Acute health, Chronic health SARA Toxic Chemical (40 CFR 372.65):	

Synthene 1700 Resin

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

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

15.2 State Regulations

California Proposition 65: Not listed

Section 16 Other Information

16.1 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,

Section 16 Other Information cont.

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.

Safety Data Sheet

Synthene 1700 Polyol

Date of Preparation: December 1, 2015

Section 1 Chemical Product and Company Identification

1.1 Product identifiers

Product name: Synthene 1700 Polyol

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

Identified uses: N/A

1.3 Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company

1101 Moore Road, Avon, OH 44011

Phone (440) 934-1902

FAX (440) 934-7200

1.4 Emergency telephone number

Emergency Phone (800) 424-9300

HMIS

H	1
F	2
R	0
PPE	
Sec. 8	

Section 2 Hazards Identification

2.1 Classification of the substance or mixture

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

Acute Toxicity, Oral, Category 3

Aquatic Acute, Category 1

Aquatic Chronic, Category 1

Skin Corrosion, Category 1B

Specific Target Organ Toxicity, repeated exposure, Category 1

Skin Sensitization, Category 1

2.2 GHS Label elements, including precautionary statements



Signal word

Danger

Hazard statements

Toxic if swallowed.

Causes severe skin burns and eye damage.

Causes damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

May produce an allergic reaction.

May cause sensitization by skin contact.

Corrosive.

Precautionary statements

Prevention

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

Response

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

If swallowed: call a physician or poison control center if feeling unwell.

Rinse mouth.

Synthene 1700 Polyol

Section 2 Hazards Identification cont.

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. Avoid release to environment.

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

None.

Section 3 Composition/Information on Ingredients

3.1 Substance

Ingredient Name	CAS Number
Bis (1,2,2,6,6-pentamethyl-4-piperidyl) Sebacate	4155-26-7
Di (phenylmercuric) dodecenyl succinate	27236-65-3

Section 4 First Aid Measures

4.1 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

Take victim to fresh air and instruct to lay in half laying position. Get medical attention immediately. Do not give anything to drink. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Eye contact: No known significant effects or critical hazards.

Inhalation: No known significant effects or critical hazards.

Skin contact: No known significant effects or critical hazards.

Ingestion: Harmful if swallowed.

4.3 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

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

Synthene 1700 Polyol

Section 5 Fire Fighting Measures cont.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available.

Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, or mist.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter sewers/surface or ground water.

6.3 Methods and materials for containment and cleaning up

For large spills absorb onto inert absorbent material and place in sealed container for disposal. Dispose of according to Federal, State, and local governmental regulations.

Section 7 Handling and Storage

7.1 Precautions for safe handling

Do not allow material to contact skin.

Provide appropriate exhaust ventilation.

7.2 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

8.1 Control parameters

Components with workplace control parameters

None.

8.2 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.

8.3 Personal protective equipment

Eye/face protection

With product at ambient temperatures, use safety glasses equipped with side shields.

8.4 Skin protection

Hand Protection

With product at ambient temperatures, use disposable nitrile gloves.

Contaminated gloves should be replaced.

Body Protection

Prevent skin contact when handling material.

8.5 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.

Synthene 1700 Polyol

Section 8 Exposure Controls/Personal Protection cont.

8.6 Safety Stations

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

8.7 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

9.1 Information on basic physical and chemical properties

Appearance	Transparent liquid
Odor	Characteristic
Odor Threshold	No data available
pH	No data available
Melting Point	No data available
VOC Content	No data available
Initial boiling point & boiling range	No data available
Flash Point(COC)	>200°C (392°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)	1.08±0.05
Water Solubility	No data available
Coefficient: n-octanol/ water	No data available
Auto-ignition temperature	No data available
Viscosity	No data available
Explosive Properties	None
Oxidizing Properties	None
% Volatile	No data available

Section 10 Stability and Reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None.

10.4 Conditions to avoid

Heat and open flames.

10.5 Incompatible materials

Water, alcohols, amines, bases, and acids.

10.6 Hazardous decomposition products

No specific data.

Synthene 1700 Polyol

Section 11 Toxicological Information

11.1 Information on toxicological effects

Acute Oral toxicity	No data available
Acute Inhalation toxicity	No data available
Acute Dermal toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitization	No data available
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 carcinogen or potential 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
Specific target organ toxicity - single exposure	None expected
Specific target organ toxicity - repeated exposure	None expected

Section 12 Ecological Information

12.1 Toxicity	No data available
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
12.5 Results of PBT & vPvB assessment	No data available

Section 13 Disposal Considerations

13.1 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

14.1 Shipping Name

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

Synthene 1700 Polyol

Section 15 Regulatory Information

15.1 US Federal Regulations

RCRA Hazardous Waste Number (40 CFR 261.33): Not listed
RCRA Hazardous Waste Classification (40 CFR 261): Not classified
CERCLA Hazardous Substance (40 CFR 302.4): Listed/unlisted specific per RCRA Sec. 3001
SARA 311/312 Codes: Acute Health,
SARA Toxic Chemical (40 CFR 372.65): None
TSCA Inventory Status: All ingredients listed on TSCA inventory requirements.

15.2 State Regulations

California Proposition 65: Di (phenylmercuric) dodecenyl succinate (CAS # 27236-65-3) is listed as a developmental hazard.

Section 16 Other Information

16.1 Disclaimer

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