



# SAFETY DATA SHEET

Issuing Date: 02-Jan-2021

Revision Date: 05-Feb-2021

Print Date: 05-Feb-2021

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Code: 16931GWU

Product Name: 34031 AIRCRAFT GREEN WATER  
REDUCIBLE MIL-DTL-64159B, TYPE II, PART A

Hentzen Coatings, Inc.  
6937 West Mill Road, Milwaukee, WI 53218-1225

Company Phone Number: 1-414-353-4200

Emergency telephone number ChemTrec 1-800-424-9300

Recommended use of the chemical and restrictions on use

Industrial paint (Paint or Paint-Related), Restricted to professional users

## 2. HAZARDS IDENTIFICATION

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Reproductive Toxicity	Category 1B

### Label Elements

#### Emergency Overview

**DANGER**

#### Hazard Statements

Causes skin irritation  
Causes serious eye irritation  
Suspected of causing cancer  
May damage fertility or the unborn child



**Appearance** Opaque

**Physical state** Liquid

**Odor** Solvent

#### Precautionary Statements - Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Wear eye/face protection

#### Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash before reuse

**Precautionary Statements - Storage**

Store in accordance with local regulations

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Other information

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Contains a known or suspected carcinogen**

This product contains substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990. See Section 15 for list of HAPS.

Chemical Name	CAS No	Weight-%	ACGIH	OSHA
POLYPROPYLENE	9003-07-0	10% - 20%	N/A	N/A
N-METHYL-2-PYRROLIDONE	872-50-4	1% - 5%	N/A	N/A
TITANIUM DIOXIDE	13463-67-7	0% - 1%	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust
IRON OXIDE	1309-37-1	0% - 1%	TWA: 5 mg/m <sup>3</sup> respirable particulate matter	TWA: 10 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction

**4. FIRST AID MEASURES**

**First Aid Measures**

**Eye Contact** Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin Contact** Wash skin with soap and water.

**Inhalation** Remove to fresh air.

**Ingestion** Clean mouth with water and afterwards drink plenty of water.

**Most important symptoms and effects, both acute and delayed**

**Most Important Symptoms and Effects** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media** No information available.

**Specific hazards arising from the chemical**

No information available.

**Explosion Data**

**Sensitivity to Mechanical Impact** no data available.

**Sensitivity to Static Discharge** no data available.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Avoid breathing vapors or mists. Ventilate the area.

**Environmental Precautions**

**Environmental Precautions** Vapors are heavier than air, spread along floors and form explosive mixtures with air.

**Methods and materials for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other noncombustible absorbent material. Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. Use only non-sparking tools.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Products** None known based on information supplied.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH	OSHA	NIOSH IDLH
TRIETHYLAMINE 121-44-8	STEL: 1 ppm TWA: 0.5 ppm S*	TWA: 25 ppm TWA: 100 mg/m <sup>3</sup>	IDLH: 200 ppm
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup> TWA: 2.4 mg/m <sup>3</sup> CIB 63 fine TWA: 0.3 mg/m <sup>3</sup> CIB 63 ultrafine, including engineered nanoscale
IRON OXIDE 1309-37-1	TWA: 5 mg/m <sup>3</sup> respirable particulate matter	TWA: 10 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	IDLH: 2500 mg/m <sup>3</sup> Fe dust and fume TWA: 5 mg/m <sup>3</sup> Fe dust and fume

NIOSH IDLH: Immediately Dangerous to Life or Health

**Exposure controls**

**Engineering Measures**                      Showers  
   Eyewash stations  
   Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection**                      If splashes are likely to occur, wear safety glasses with side-shields.

**Skin and Body Protection**                Chemical resistant apron.

**Respiratory Protection**                    If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures**                            Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	Liquid	<b>Appearance</b>	Opaque
<b>Odor</b>	Solvent.	<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available	<b>Flash Point</b>	201 °F / 94 °C
<b>Decomposition temperature</b>	No data available	<b>Boiling Point</b>	274 °F / 134 °C
<b>Melting Point / Melting Range</b>	No data available	<b>Freezing Point</b>	No data available
<b>Vapor Pressure @20°C (kPa)</b>	No data available	<b>Partition coefficient:</b>	No data available
<b>Vapor Density</b>	No data available	<b>Density</b>	No data available
<b>Bulk density</b>	No data available	<b>Specific Gravity</b>	1.14
<b>Evaporation Rate</b>	No data available	<b>Water solubility</b>	No data available
<b>Dynamic viscosity</b>	No data available	<b>Weight per Gallon (lbs/gal):</b>	9.48
		<b>EPA VOC (lb/gal)</b>	0.87
<b>Flammability Limits in Air</b>			
<b>Upper</b>	0 %		
<b>Lower</b>	0 %		

**10. STABILITY AND REACTIVITY**

**Reactivity**  
No data available

**Chemical stability**  
Stable under recommended storage conditions.

**Conditions to Avoid**  
Extremes of temperature and direct sunlight.

**Incompatible Materials**  
None known based on information supplied.

**Hazardous Decomposition Products**  
None known based on information supplied.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**                      The product has not been tested

**Inhalation**                                    There is no data for this product.

**Eye Contact**                                 There is no data for this product.

**Skin Contact** There is no data for this product.

**Ingestion** There is no data for this product.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
N-METHYL-2-PYRROLIDONE 872-50-4	= 3914 mg/kg ( Rat )	= 8 g/kg ( Rabbit )	> 5.1 mg/L ( Rat ) 4 h
TRIETHYLAMINE 121-44-8	= 460 mg/kg ( Rat )	= 415 mg/kg ( Rabbit )	= 14.5 mg/L ( Rat ) 1 h
TITANIUM DIOXIDE 13463-67-7	> 10000 mg/kg ( Rat )	N/A	N/A
IRON OXIDE 1309-37-1	> 10000 mg/kg ( Rat )	N/A	N/A

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**MUTAGENIC EFFECTS** No information available.

**Carcinogenicity** This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical Name	ACGIH	IARC	NTP	OSHA
POLYPROPYLENE 9003-07-0	N/A	Group 3	N/A	N/A
TITANIUM DIOXIDE 13463-67-7	N/A	Group 2B	N/A	X
IRON OXIDE 1309-37-1	N/A	Group 3	N/A	N/A

**Legend:**

- IARC (International Agency for Research on Cancer)
- Group 2B - Possibly Carcinogenic to Humans
- Group 3 - Not Classifiable as to Carcinogenicity in Humans
- OSHA (Occupational Safety and Health Administration of the US Department of Labor)
- X - Present

**Reproductive Toxicity** No information available.

**Specific target organ systemic toxicity (single exposure)** No information available.

**Specific target organ systemic toxicity (repeated exposure)** No information available.

**Chronic Toxicity** May cause adverse liver effects.

**Target Organ Effects** Eyes, Gastrointestinal tract (GI), Liver, Respiratory system, Skin.

**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

- ATEmix (oral) 27721 mg/kg
- ATEmix (dermal) 19311 mg/kg
- ATEmix (inhalation-dust/mist) 13853.8 mg/l
- Oral LD50 23364 mg/kg (rat) Estimated
- Dermal LD50 2149 mg/kg (rat) Estimated
- Inhalation LC50 62548 mg/l (mist) (dust) mg/m<sup>3</sup> Estimated
- Inhalation LC50

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to daphnia and other aquatic invertebrates
N-METHYL-2-PYRROLIDONE 872-50-4	500: 72 h Desmodesmus subspicatus mg/L EC50	1072: 96 h Pimephales promelas mg/L LC50 static 1400: 96 h Poecilia reticulata mg/L LC50 static 832: 96 h Lepomis macrochirus mg/L LC50 static	4897: 48 h Daphnia magna mg/L EC50
TRIETHYLAMINE 121-44-8	N/A	43.7: 96 h Pimephales promelas mg/L LC50 static	200: 48 h Daphnia magna mg/L EC50
IRON OXIDE 1309-37-1	N/A	100000: 96 h Danio rerio mg/L LC50 static	N/A

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
N-METHYL-2-PYRROLIDONE 872-50-4	-0.46

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste treatment methods**

Dispose of in accordance with federal, state and local regulations.

**US EPA Waste Number**

No information available

Chemical Name	RCRA - Basis for Listing	RCRA - D Series Wastes
TRIETHYLAMINE 121-44-8	Included in waste streams: K156, K157	N/A

**14. TRANSPORT INFORMATION**

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**ICAO** Not regulated

**IATA** Not regulated

**IMDG/IMO** Not regulated

**RID** Not regulated

**ADR/RID** Not regulated

**ADN** Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

**TSCA** Complies

<b>DSL/NDL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	SARA 313 - Threshold Values %
N-METHYL-2-PYRROLIDONE	872-50-4	1.0

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**CAA (Clean Air Act)**

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants This product contains the following HAPs:

Chemical Name	CAS No	Hazardous air pollutants (HAPs) content
TRIETHYLAMINE	121-44-8	Present

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
TRIETHYLAMINE	5000 lb	N/A	N/A	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ (reportable quantity)
TRIETHYLAMINE	5000 lb	N/A	RQ 5000 lb final RQ RQ 2270 kg final RQ

**State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical Name	CAS No	California Proposition 65
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N-METHYL-2-PYRROLIDONE	872-50-4	Developmental
TITANIUM DIOXIDE	13463-67-7	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
N-METHYL-2-PYRROLIDONE	X	X	X	N/A	N/A
TRIETHYLAMINE	X	X	X	X	N/A

**International Regulations**

**Mexico - Grade** Slight risk, Grade 1

Chemical Name	Carcinogenic Status	Exposure Limits
TRIETHYLAMINE	N/A	Mexico: TWA 1 ppm Mexico: STEL 3 ppm
TITANIUM DIOXIDE	N/A	Mexico: TWA 10 mg/m <sup>3</sup>
IRON OXIDE	N/A	Mexico: TWA 5 mg/m <sup>3</sup>

**16. OTHER INFORMATION**

NFPA Health Hazard 0 Flammability 1 Instability 0 Physical and Chemical Hazards -

NFPA Rating



HMIS Health Hazard 1 \* Flammability 1 Physical Hazard 0 Personal protection X

*Chronic Hazard Star Legend*

*\* Chronic Health Hazard*

Issuing Date: 02-Jan-2021  
 Revision Date: 05-Feb-2021  
 Revision Note  
 No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. 16931GWU

end





# SAFETY DATA SHEET

Issuing Date: 28-Jan-2021

Revision Date: 29-Jan-2021

Print Date: 29-Jan-2021

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Code: 16932CMU

Product Name: CATALYST FOR WATER REDUCIBLE MIL-DTL-64159B, TYPE II, PART B

Hentzen Coatings, Inc.  
6937 West Mill Road, Milwaukee, WI 53218-1225

Company Phone Number: 1-414-353-4200

Emergency telephone number ChemTrec 1-800-424-9300

Recommended use of the chemical and restrictions on use

Industrial paint (Paint or Paint-Related), Restricted to professional users

## 2. HAZARDS IDENTIFICATION

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Flammable Liquids	Category 4

### Label Elements

#### Emergency Overview

**DANGER**

#### Hazard Statements

Harmful if swallowed  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause an allergic skin reaction  
Combustible liquid



**Appearance** Clear

**Physical state** Liquid

**Odor** Solvent

#### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Avoid breathing dust/fume/gas/mist/vapors/spray  
In case of inadequate ventilation wear respiratory protection  
Contaminated work clothing should not be allowed out of the workplace  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Wear protective gloves/protective clothing/eye protection/face protection

IF ON SKIN: Wash with plenty of soap and water

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

Wash contaminated clothing before reuse  
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing  
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician  
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
Rinse mouth  
In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

**Other information**

- Toxic to aquatic life with long lasting effects
- Toxic to aquatic life

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**There are no known carcinogenic chemicals in this product**

This product contains substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990. See Section 15 for list of HAPS.

Chemical Name	CAS No	Weight-%	ACGIH	OSHA
HOMOPOLYMER OF HEXAMETHYLENE DIISOCYANATE	28182-81-2	60% - 70%	N/A	N/A
2-ETHYL HEXYL ACETATE	103-09-3	20% - 30%	N/A	N/A
N,N-DIMETHYLCYCLOHEXYLAMINE	98-94-2	1% - 5%	N/A	N/A
HEXAMETHYLENE DIISOCYANATE MONOMER	822-06-0	0% - 1%	TWA: 0.005 ppm	N/A

**4. FIRST AID MEASURES**

**First Aid Measures**

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. If symptoms persist, call a physician.
<b>Eye Contact</b>	Immediately flush eyes with water for at least 15 minutes. Get medical attention. If easy to do, remove contact lenses. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water. Consult a physician if necessary. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
<b>Inhalation</b>	Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products. Asthma-like and/ or skin allergy-like symptoms.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician if necessary. Do NOT induce vomiting.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Use personal protective equipment as required.
<b>Most important symptoms and effects, both acute and delayed</b>	
<b>Most Important Symptoms and</b>	No information available.

**Effects**

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**

Use: Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray. Alcohol-resistant foam.

**Unsuitable Extinguishing Media** No information available.

**Specific hazards arising from the chemical**

Keep product and empty container away from heat and sources of ignition. Risk of ignition. Containers may explode when heated or if contaminated with water. Flammable.

**Explosion Data**

**Sensitivity to Mechanical Impact** no data available.

**Sensitivity to Static Discharge** Yes.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions**

Evacuate personnel to safe areas. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists. Ventilate the area. Use personal protective equipment as required. Remove all sources of ignition.

**Other information**

DECONTAMINATION SOLUTION: Concentrated ammonia (3 - 8%), detergent (2%) and water (90 - 95%), a solution of Union Carbide's Tergitol TMN-10 (20%) and water (80%) or a solution of 50% isopropanol, 45% water, and 5% concentrated ammonia solution(% by weight).

**Environmental Precautions**

**Environmental Precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Do not flush into surface water or sanitary sewer system.

**Methods and materials for containment and cleaning up**

**Methods for Containment**

Decontaminate floor with decontamination solution letting stand for at least 15 minutes. Soak up with inert absorbent material.

**Methods for Cleaning Up**

Dam up. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Do not contaminate ponds, waterways or ditches with chemical or used container. Soak up with inert absorbent material.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Ensure adequate ventilation. Keep away from open flames, hot surfaces

and sources of ignition. Take precautionary measures against static discharges. Use explosion-proof electrical (ventilation and lighting) equipment. Use with local exhaust ventilation. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe the vapor or mist. To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. Use only non-sparking tools. Avoid contact with skin and eyes.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep in properly labeled containers. Keep tightly closed in a dry and cool place. Keep containers tightly closed in a cool, well-ventilated place. Protect from moisture. Keep away from heat, sparks and flame.

**Incompatible Products** Water. Glycol ethers. Alcohols. Epoxies. Bases.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH	OSHA	NIOSH IDLH
HEXAMETHYLENE DIISOCYANATE MONOMER 822-06-0	TWA: 0.005 ppm	N/A	Ceiling: 0.020 ppm 10 min Ceiling: 0.140 mg/m <sup>3</sup> 10 min TWA: 0.005 ppm TWA: 0.035 mg/m <sup>3</sup>

NIOSH IDLH: *Immediately Dangerous to Life or Health*

**Exposure controls**

**Engineering Measures** Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

**Individual protection measures, such as personal protective equipment**

- Eye/Face Protection** Use personal protective equipment as required.
- Skin and Body Protection** Chemical resistant apron.
- Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	Liquid	<b>Appearance</b>	Clear
<b>Odor</b>	Solvent.	<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available	<b>Flash Point</b>	160 °F / 71 °C
<b>Decomposition temperature</b>	No data available	<b>Boiling Point</b>	201 °F / 94 °C
<b>Melting Point / Melting Range</b>	No data available	<b>Freezing Point</b>	No data available
<b>Vapor Pressure @20°C (kPa)</b>	No data available	<b>Partition coefficient:</b>	No data available
<b>Vapor Density</b>	No data available	<b>Density</b>	No data available
<b>Bulk density</b>	No data available	<b>Specific Gravity</b>	1.06
<b>Evaporation Rate</b>	No data available	<b>Water solubility</b>	No data available
<b>Dynamic viscosity</b>	No data available	<b>Weight per Gallon (lbs/gal):</b>	8.83
		<b>EPA VOC (lb/gal)</b>	2.23
<b>Flammability Limits in Air</b>			
Upper	0 %		

Lower 0 %

### 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Conditions to Avoid**

Heat, flames and sparks.

**Incompatible Materials**

Water. Glycol ethers. Alcohols. Epoxies. Bases.

**Hazardous Decomposition Products**

None known based on information supplied.

### 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

<b>Product Information</b>	The product has not been tested
<b>Inhalation</b>	There is no data for this product.
<b>Eye Contact</b>	There is no data for this product.
<b>Skin Contact</b>	There is no data for this product.
<b>Ingestion</b>	There is no data for this product.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
N,N-DIMETHYLCYCLOHEXYLAMINE 98-94-2	= 272 mg/kg ( Rat )	N/A	= 1889 mg/m <sup>3</sup> ( Rat ) 2 h
HEXAMETHYLENE DIISOCYANATE MONOMER 822-06-0	= 738 mg/kg ( Rat )	= 593 mg/kg ( Rabbit )	= 0.06 mg/L ( Rat ) 4 h

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Sensitization</b>	No information available.
<b>MUTAGENIC EFFECTS</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Legend:</b>	
<b>Reproductive Toxicity</b>	No information available.
<b>Specific target organ systemic toxicity (single exposure)</b>	No information available.
<b>Specific target organ systemic toxicity (repeated exposure)</b>	No information available.
<b>Chronic Toxicity</b>	Avoid repeated exposure.
<b>Aspiration hazard</b>	No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 1896 mg/kg

ATEmix (inhalation-dust/mist) 33.7 mg/l  
 Oral LD50 7123 mg/kg (rat) Estimated  
 Dermal LD50 596 mg/kg (rat) Estimated  
 Inhalation LC50 27805 mg/l (mist) (dust) mg/m<sup>3</sup> Estimated  
 Inhalation LC50

**12. ECOLOGICAL INFORMATION**

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to daphnia and other aquatic invertebrates
N,N-DIMETHYLCYCLOHEXYLAMINE 98-94-2	0.0885: 96 h Desmodesmus subspicatus mg/L EC50 0.309: 72 h Desmodesmus subspicatus mg/L EC50	N/A	75: 48 h Daphnia magna Straus mg/L EC50
HEXAMETHYLENE DIISOCYANATE MONOMER 822-06-0	N/A	26.1: 96 h Brachydanio rerio mg/L LC50 static	N/A

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
N,N-DIMETHYLCYCLOHEXYLAMINE 98-94-2	2.01

Other adverse effects

No information available

**13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

**Waste treatment methods**

This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

**US EPA Waste Number**

D001

**14. TRANSPORT INFORMATION**

DOT Not regulated  
TDG Not regulated  
MEX Not regulated  
ICAO Not regulated  
IATA Not regulated  
IMDG/IMO Not regulated  
RID Not regulated  
ADR/RID Not regulated

ADN Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**CAA (Clean Air Act)**

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants This product contains the following HAPs:

Chemical Name	CAS No	Hazardous air pollutants (HAPs) content
HEXAMETHYLENE DIISOCYANATE MONOMER	822-06-0	Present

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ (reportable quantity)
HEXAMETHYLENE DIISOCYANATE MONOMER	100 lb	N/A	RQ 100 lb final RQ RQ 45.4 kg final RQ

**State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
N,N-DIMETHYLCYCLOHEXYLAMINE	N/A	X	N/A	N/A	N/A

**International Regulations**

**Mexico - Grade** Moderate risk, Grade 2

Chemical Name	Carcinogenic Status	Exposure Limits
HEXAMETHYLENE DIISOCYANATE MONOMER	N/A	Mexico: TWA 0.005 ppm

**16. OTHER INFORMATION**

**NFPA** Health Hazard 2 Flammability 2 Instability 0 Physical and Chemical Hazards -

NFPA Rating



**HMIS** Health Hazard 2 \* Flammability 2 Physical Hazard 1 Personal protection X

*Chronic Hazard Star Legend*

*\* Chronic Health Hazard*

**Issuing Date:** 28-Jan-2021

**Revision Date:** 29-Jan-2021

**Revision Note**

No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. 16932CMU

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