



# 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: 18011TWU

Product Name: 34088 OLIVE DRAB WATER REDUCIBLE  
URA-ZEN 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**

- May be harmful if swallowed
- Harmful to aquatic life with long lasting effects

**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
PIGMENT BROWN 24	68186-90-3	5% - 10%	TWA: 0.5 mg/m <sup>3</sup> Sb	TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Cr
N-METHYL-2-PYRROLIDONE	872-50-4	1% - 5%	N/A	N/A
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
TITANIUM DIOXIDE	13463-67-7	0% - 1%	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust

**4. FIRST AID MEASURES**

**First Aid Measures**

**General advice**

If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.

**Eye Contact**

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.

**Skin Contact**

Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. If skin irritation persists, call a physician. Immediate medical attention is not required.

**Inhalation**

Consult a physician if necessary. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Remove to fresh air. Artificial respiration and/or oxygen may be necessary. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

**Ingestion**

Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

**Self-protection of the first aider** Use personal protective equipment as required.

**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** Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists. Ventilate the area. Use personal protective equipment as required.

### **Environmental Precautions**

**Environmental Precautions** Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. 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.

### **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** Cover liquid spill with sand, earth or other noncombustible absorbent material. Use personal protective equipment as required. Dam up. Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### **Precautions for safe handling**

**Advice on safe handling** Avoid contact with eyes, skin and clothing. Wear protective gloves/protective clothing/eye protection/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. 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 container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep in properly labeled containers.

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters

**Exposure Guidelines**

Chemical Name	ACGIH	OSHA	NIOSH IDLH
PIGMENT BROWN 24 68186-90-3	TWA: 0.5 mg/m <sup>3</sup> Sb	TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Cr	IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 25 mg/m <sup>3</sup> Cr(III) TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Cr
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
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
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

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** 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>	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>	1.22
<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>	10.17
		<b>EPA VOC (lb/gal)</b>	1.36
<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**

<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
PIGMENT BROWN 24 68186-90-3	> 10000 mg/kg ( Rat )	N/A	N/A
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
IRON OXIDE 1309-37-1	> 10000 mg/kg ( Rat )	N/A	N/A
TITANIUM DIOXIDE 13463-67-7	> 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
PIGMENT BROWN 24	N/A	Group 3	N/A	N/A

68186-90-3				
IRON OXIDE 1309-37-1	N/A	Group 3	N/A	N/A
TITANIUM DIOXIDE 13463-67-7	N/A	Group 2B	N/A	X

**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

<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. May cause adverse liver effects.
<b>Target Organ Effects</b>	Central Vascular System (CVS), Eyes, Gastrointestinal tract (GI), Liver, Respiratory system, Skin.
<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 .

<b>ATEmix (oral)</b>	3598 mg/kg
<b>ATEmix (dermal)</b>	17634 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	12.3 mg/l
<b>Oral LD50</b>	16287 mg/kg (rat) Estimated
<b>Dermal LD50</b>	2149 mg/kg (rat) Estimated
<b>Inhalation LC50</b>	49865 mg/l (mist) (dust) mg/m <sup>3</sup> Estimated
<b>Inhalation LC50</b>	

**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

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
PIGMENT BROWN 24 68186-90-3	Toxic Corrosive Ignitable

**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  
**DSL/NDSL** Complies  
**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies  
**KECL** Complies  
**PICCS** Complies  
**AICS** Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - 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 %
PIGMENT BROWN 24	68186-90-3	1.0
N-METHYL-2-PYRROLIDONE	872-50-4	1.0

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	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
PIGMENT BROWN 24	68186-90-3	Present
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
PIGMENT BROWN 24	N/A	X	N/A	N/A
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
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
PIGMENT BROWN 24	N/A	X	X	X	N/A
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

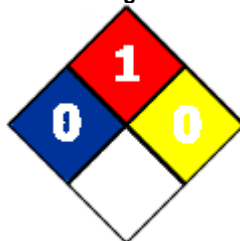


Chemical Name	Carcinogenic Status	Exposure Limits
PIGMENT BROWN 24	N/A	Mexico: TWA 0.5 mg/m <sup>3</sup>
TRIETHYLAMINE	N/A	Mexico: TWA 1 ppm Mexico: STEL 3 ppm
IRON OXIDE	N/A	Mexico: TWA 5 mg/m <sup>3</sup>
TITANIUM DIOXIDE	N/A	Mexico: TWA 10 mg/m <sup>3</sup>

**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. 18011TWU

end



# SAFETY DATA SHEET

Issuing Date: 03-Jul-2021

Revision Date: 03-Jul-2021

Print Date: 03-Jul-2021

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

Product Code: 07170CMU

Product Name: CATALYST FOR WATER REDUCIBLE URETHANE, 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)

Respiratory sensitization	Category 1
Skin sensitization	Category 1
Flammable Liquids	Category 4

### Label Elements

#### Emergency Overview

**DANGER**

#### Hazard Statements

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

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

In case of fire: Use CO2, 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**

- May be harmful if swallowed
- 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
HEXAMETHYLENE DIISOCYANATE MONOMER	822-06-0	0% - 1%	TWA: 0.005 ppm	N/A

**4. FIRST AID MEASURES**

**First Aid Measures**

**General advice**

If symptoms persist, call a physician.

**Eye Contact**

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.

**Skin Contact**

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.

**Inhalation**

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.

**Ingestion**

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.

**Self-protection of the first aider**

Use personal protective equipment as required.

**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: 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.

**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. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges. 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**

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. Dam up. Pick up and transfer to properly labeled containers. Take precautionary measures against static discharges. Soak up with inert absorbent material.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**

Avoid contact with skin and eyes. Do not breathe vapor or mist. Use with local exhaust ventilation. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from heat and sparks - No Smoking. Wear protective gloves/protective clothing/eye protection/face protection. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). 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** Protect from moisture. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. 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>	378 °F / 192 °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>	1.07
<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>	8.94
		<b>EPA VOC (lb/gal)</b>	2.04
<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**

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
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 .

<b>ATEmix (oral)</b>	3020 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	74.6 mg/l
<b>Oral LD50</b>	12804 mg/kg (rat) Estimated
<b>Dermal LD50</b>	594 mg/kg (rat) Estimated
<b>Inhalation LC50</b>	27299 mg/l (mist) (dust) mg/m <sup>3</sup> Estimated
<b>Inhalation LC50</b>	

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to daphnia and other aquatic invertebrates

HEXAMETHYLENE DIISOCYANATE MONOMER 822-06-0	N/A	26.1: 96 h Brachydanio rerio mg/L LC50 static	N/A
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**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**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

**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

**DSL/NDSL**

Complies

**EINECS/ELINCS**

Complies

**ENCS**

Complies

**IECSC**

Complies

**KECL**

Complies

**PICCS**

Complies

**AICS**

Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - 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**

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	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**

**International Regulations**

Mexico - Grade Moderate risk, Grade 2

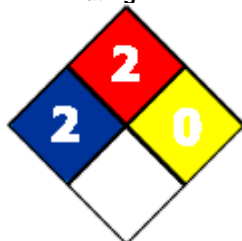
Chemical Name	Carcinogenic Status	Exposure Limits
HEXAMETHYLENE DIISOCYANATE MONOMER	N/A	Mexico: TWA 0.005 ppm

**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:** 03-Jul-2021

**Revision Date:** 03-Jul-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. 07170CMU

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