

# Safety Data Sheet

Date Issued: 1/23/17

Version: 1.0

## 1. CHEMICAL PRODUCTS AND COMPANY IDENTIFICATION

**Product Names/Trade Names:** ProSpartic S-Resin, ProSpartic F-Resin, FlexSpartic Resin, BioSpartic Resin

**Chemical Family:** Aspartic Acid, Secondary Amines

**Manufacturer's Name:** ProREZ Coatings, LLC

PO BOX 153

Cromwell, CT 06416-0153 USA

General No.: (877) 511-3456 (8:00am to 5:00pm Eastern Time)

**Company 24 Hour Emergency Response Information:** CHEMTEL: 1-800-255-3924

Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

## 2. HAZARDS IDENTIFICATION

**Emergency Overview:** Caution! May cause eye and skin irritation. May cause an allergic skin reaction

### Classification of the substance

Skin Sens. 1; H317: May cause an allergic skin reaction.

Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects.

### Classification according to Directive 67/548/EEC or Directive 1999/45/EC

R43: May cause sensitization by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Label Elements

Hazardous components that must be listed on the label:

Contains Modified N,N-(methylenedi-4,1-cyclohexanediyl)bis-, tetraethyl ester

### Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

**Signal word:** Warning

**Pictograms:**



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## Hazard Statements:

H317 May cause an allergic skin reaction.

H412: Harmful to aquatic life with long lasting effects.

## Precautionary Statements

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

**General Information:** This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas.

**Read the entire SDS for a more thorough evaluation of the hazards.**

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	% By Weight	CAS Number
Aspartic Acid, N, N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester	40-60%	136210-30-5
Aspartic Acid, N, N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-,1,1'4,4''-tetraethyl ester	40-60%	136210-32-7

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## 4. FIRST-AID MEASURES

**General advice:** Seek medical advice or medical attention if condition persists.

**Eye contact:** Rinse immediately with plenty of water for at least 15 minutes.

**Skin Contact:** Immediately remove any extraneous chemical, if possible without delay. Take off contaminated clothing and shoes immediately. Wash body off with soap and plenty of water.

**Ingestion:** Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position and turn victim's head to the side. **Do not induce vomiting.**

**Inhalation:** Move to fresh air. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

**Notes to Physician:** No specific treatment. Treat symptomatically. Call the poison control center immediately if large quantities have been ingested. Corticosteroid cream has been effective and treating skin irritation in similar products with similar chemistries.

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## 5. FIRE-FIGHTING MEASURES

**Suitable Fire Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical. Water Fog.

**Specific hazards:** May generate ammonia gas. May generate toxic nitrogen oxide gases. **Do not allow run-off from fire-fighting to enter drains or water courses.** Incomplete combustion may form carbon monoxide (CO) and nitrogen oxides (NO<sub>x</sub>). Ammonia gas may be liberated at high temperatures. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

**Special protective equipment for fire-fighters:** Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Danger of Explosion:** This product does not present an explosion hazard.

**Flammable Limits:** Not available.

**Explosion Limits:** Not Available.

**Auto-Ignition Temperature:** 335°C (635°F)

**Flash Points:** 94°C (201°F) [DIN 51758 EN 22719 (Pensky-Martens Closed Cup)]

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental Precautions:** Water polluting material. May be harmful to the environment if released in large quantities. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution.

**Methods for Cleaning up:** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

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## 7. HANDLING AND STORAGE

**Handling:** Put on appropriate personal protective equipment, PPE (see Section 8). Eating and drinking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated PPE or clothing, wash hands and face before eating and drinking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Use only in area provided with appropriate exhaust ventilation. Empty containers retain product residue and can be hazardous. Do not get in eyes, skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment.

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**Storage:** Store between 4-40°C (40-104°F) in accordance with local regulations away from sources of heat, ignition, and direct sunlight. Store in original container. Keep in a dry, well-ventilated area, and away from incompatible materials (see section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled, unapproved or reactive containers. Use appropriate containment to avoid environmental contamination.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Special Note for Exposure Control:** Consult local authorities for acceptable exposure limits.

**OSHA PEL (TWA):** Not Determined

**ACGIH TLV (TWA):** Not Determined

**NIOSH REL (TWA):** Not Determined

**Engineering measures:** Work in well ventilated area. Provide natural air movement or fan to ensure adequate ventilation, especially in confined area. Avoid contact with skin, eyes, and clothing.

**Environmental exposure controls:** Construct a dike to prevent spreading. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Hygiene Measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating and drinking, smoking or using the lavatory and at the end of the working period. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal Protection:

**Respiratory** - In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Eyes** – Splash proof safety glasses.

**Skin** - Rubber or plastic apron. Rubber or plastic gloves. Long sleeved clothing or wear protective sleeves. Remove and wash contaminated clothing before re-use.

**Other protective equipment information** - Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Neoprene gloves. PVC disposable gloves. Nitrile rubber. Butyl-rubber. Impervious gloves. (The breakthrough time of the selected glove(s) must be greater than the intended use period.)

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form:</b>	Liquid
<b>Odor:</b>	Mild
<b>Color:</b>	Pale Yellow
<b>PH Value:</b>	Alkaline
<b>Boiling Point:</b>	>235°C (>455°F)
<b>Melting Point:</b>	Not Determined
<b>Vapor Pressure:</b>	<20.68 mmHg @ 21°C (71°F)
<b>Vapor Density:</b>	Not Determined
<b>Density (Nominal):</b>	>1 g/cm <sup>3</sup>
<b>Solubility in water:</b>	Nil
<b>Evaporation Rate (Butyl Acetate = 1):</b>	Not Determined
<b>Volatile Organic Compounds:</b>	Nil

## 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under normal conditions. Hazardous reactions will not occur.

**Conditions to avoid:** Direct source of heat.

**Materials to avoid:** Strong oxidizers, acids and bases.

Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.

Reactive metals (e.g. sodium, calcium, zinc etc.).

**Hazardous decomposition products:** Carbon monoxide (CO). Carbon dioxide(CO<sub>2</sub>). Ammonia. Flammable hydrocarbon fragments (e.g., acetylene).Nitrogen oxides (NO<sub>x</sub>).

Nitrogen oxide can react with water vapors to form corrosive nitric acid.

**Hazardous polymerization:** Under normal conditions hazardous polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

**Aspartic Acid, N, N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-,1,1'4,4''-tetraethyl ester (CAS 136210-32-7)**

LD50 Oral Rat >2,000 mg/kg LC50 Inhalation Rat >4,224 mg/l, 4h

LD50 Dermal Rat >2,000 mg/kg

**Skin Corrosion/Irritation (Rabbit, 24h):** None

**Skin Sensitization (Guinea Pig):** Positive

**Carcinogenicity:** OSHA Not Listed. IARC Not Listed. NTP Not Listed.

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## 12. ECOLOGICAL INFORMATION

**Aspartic Acid, N, N'-[methylenebis(2-methyl-4,1-cyclohexanediyl)]bis-,1,1',4,4''-tetraethyl ester (CAS 136210-32-7) and Aspartic Acid, N, N'-(methylenedi-4,1-cyclohexanediyl)bis-, 1,1',4,4'-tetraethyl ester:**  
Acute Toxicity to Fish: LC50 66 mg/l (Zebra Fish, 96h), LC50 88.6 mg/l (Water Flea, 96h)  
Acute Toxicity to algae: ErC50 113 mg/l.

**Persistence and Degradability: Not readily degradable.**

**Bioaccumulative Potential: Bioaccumulation ca. 8,228 BCF.**

**Other Adverse Effects: Toxicity to terrestrial Plants: EC50  $\geq$ 100 mg/kg, 14d)**

**Other Information: Toxicity to Microorganisms: EC 50: 3,110 mg/l (bacteria, 3 h).**

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Dispose in accordance with federal, state and local regulations.

The generation of waste should be avoided or minimized wherever possible. Empty containers should be taken to an approved waste-handling site for recycling or disposal. Incineration or landfill should only be considered when recycling is not feasible. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Refer to 40 CFR § 261.7 (residues of hazardous waste in empty containers).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. TRANSPORT INFORMATION

Regulatory information	UN number	Classes	Packing Group	Proper Shipping Name
DOT				Not Regulated
TDG				Not Regulated
IMDG				Not Regulated
IATA				Not Applicable

## 15. REGULATORY INFORMATION

Country	Regulatory List	Notification
USA	TSCA	Included on Inventory
EU	EINECS	Included on Inventory
Canada	DSL	Included on Inventory
China	SEPA	Included on Inventory
Japan	ENCS	Included on Inventory

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**OSHA:** This product is considered to be a hazardous chemical under 29 CFR 1910.1200.

**SARA Section 311 AND 312** - This product has been reviewed according to the EPA “Hazard Categories” promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: ACUTE

**SARA Section 313** - This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: None

**California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)** - This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.

**Canadian WHMIS:** D2B: Toxic material causing other toxic effects.



**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.**

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## 16. OTHER INFORMATION

### Hazardous Material Information System (HMIS):

<i>Scale 0-4</i>		<i>NFPA</i>	<i>HMIS</i>
4=Severe Hazard	Health	2	2
3=Serious Hazard	Flammability	1	1
2=Moderate Hazard	Reactivity	0	0
1=Slight Hazard			
0=Minimal Hazard			

THE INFORMATION AND RECOMMENDATIONS PRESENTED HEREIN ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE. USER MUST CONDUCT THEIR OWN TESTS TO DETERMINE THE SUITABILITY OF THESE PRODUCTS FOR THEIR PARTICULAR PURPOSES AND USAGE. BECAUSE OF NUMEROUS FACTORS AFFECTING RESULTS, PROREZ COATINGS, LLC AND ITS AFFILIATION MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR PURPOSE, OTHER THAN MATERIAL CONFORMS TO OUR APPLICABLE CURRENT SPECIFICATIONS. PROREZ COATINGS, LLC ASSUMES NO LEGAL RESPONSIBILITY FOR USE OR RELIANCE ON THE INFORMATION CONTAINED IN THIS SAFETY DATA SHEET.

**END OF DATA SHEET**

# Safety Data Sheet

Date Issued: 1/25/17

Version: 1.0

## 1. CHEMICAL PRODUCTS AND COMPANY IDENTIFICATION

**Product Names/Trade Names:** ProThane Hardener, ProSpartic Hardener, FlexSpartic Hardener

**Chemical Family:** Isocyanate

**Manufacturer's Name:** ProREZ Coatings, LLC  
PO BOX 153  
Cromwell, CT 06416-0153 USA  
General No.: (877) 511-3456 (8:00am to 5:00pm Eastern Time)

**Company 24 Hour Emergency Response Information:** CHEMTEL: 1-800-255-3924

Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

## 2. HAZARDS IDENTIFICATION

**Emergency Overview:** CAUTION. Contains hexamethylene diisocyanate (HDI) (CAS NO. 822-06-0). Inhalation of HDI mists or vapors may cause respiratory irritation, breathlessness, chest discomfort, and reduced pulmonary function. Overexposure well above the OSHA PEL may result in bronchitis, bronchial spasms, and pulmonary edema.

Long-term exposure to HDI has been reported to cause lung damage, including reduced lung function which may be permanent. Acute or chronic overexposure to HDI may cause sensitization in some individuals resulting in allergic respiratory reactions including wheezing, shortness of breath, and difficulty to breathing.

### Classification of the substance

Acute Tox.	4	(Inhalation - mist)	Acute toxicity
Resp. Sens.	1	Respiratory sensitization	
Skin Sens.	1	Skin sensitization	
STOT SE	3	(irritating to respiratory system)	Specific target organ toxicity — single exposure

### Label Elements

Hazardous components that must be listed on the label:  
No special label requirement.

**Signal Word:** Danger

**Pictograms:**





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## Hazard Statements:

- H332 Harmful if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.

## Precautionary Statements (Prevention)

- P280 Wear protective gloves.  
P271 Use only outdoors or in a well-ventilated area.  
P260 Do not breathe mist or vapor.  
P261 Avoid breathing mist.  
P284 In case of inadequate ventilation wear respiratory protection.  
P272 Contaminated work clothing should not be allowed out of the workplace.

## Precautionary Statements (Response)

- P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P303 + P362 IF ON SKIN (or hair): Wash with plenty of soap and water.  
P333 + P311 If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.  
P362 + P364 Take off contaminated clothing and wash before reuse.

## Precautionary Statements (Storage):

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

## Precautionary Statements (Disposal):

- P501 Dispose of contents/container to hazardous or special waste collection point.

**General Information:** The isocyanates component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Persons with history of respiratory disease or hypersensitivity should not be exposed to this product. This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA.

**Read the entire MSDS for a more thorough evaluation of the hazards.**

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	% By Weight	CAS Number
Homopolymer of hexamethylene diisocyanate	>60-100%	28182-81-2
Hexamethylene diisocyanate	<0.5%	822-06-0

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## 4. FIRST-AID MEASURES

**General advice:** Seek medical advice or medical attention if condition persists.

**Eye contact:** Rinse immediately with plenty of water for at least 15 minutes.

**Skin Contact:** Immediately remove any extraneous chemical, if possible without delay. Take off contaminated clothing and shoes immediately. Wash body off with soap and plenty of water.

**Ingestion:** Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position and turn victim's head to the side. **Do not induce vomiting.**

**Inhalation:** Move to fresh air. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

**Note to physician:** No specific treatment. Treat symptomatically. Call the poison control center immediately if large quantities have been ingested.

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## 5. FIRE-FIGHTING MEASURES

**Suitable Fire Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

**Flammable Limits:** Not available.

**Explosion Limits:** Not Available

**Auto-Ignition Temperature:** 805°F (430°C)

**Flash Points:** Open Cup: 437°F (225°C), Closed Cup: 338°F (170°C)

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** No action shall be taken involving any personal risk or without suitable training.

Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental Precautions:** Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution (sewers, drains, waterways or soil).

**Methods for Cleaning up:** Stop leak if without risk. Move containers from spill area. Approach release from upwind. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

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## 7. HANDLING AND STORAGE

**Handling:** Put on appropriate personal protective equipment, PPE (see Section 8). Eating and drinking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated PPE or clothing, wash hands and face before eating and drinking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Use only in area provided with appropriate exhaust ventilation. Empty containers retain product residue and can be hazardous. Do not get in eyes, skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment.

**Storage:** Store between 15-27°C (60-80°F) in accordance with local regulations away from sources of heat, ignition, and direct sunlight. Store in original container. Keep in a dry, well-ventilated area, and away from incompatible materials (see section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled, unapproved or reactive containers. Use appropriate containment to avoid environmental contamination.

**Special Handling:** If bulging of drum occurs, transfer to ventilated cool area or outside away from people, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Component	CAS	General Exposure Limits	General Exposure Limits
Aliphatic polyisocyanate	28182-81-2	TWA 0.5 mg/m <sup>3</sup>	STEL 1.0 mg/m <sup>3</sup> (15-min)
Hexamethylene diisocyanate (<0.5%)	822-06-0	ACGIH TWA 0.005 ppm	CLV 0.02 ppm

**Engineering Measures:** Work in well ventilated area. Provide natural air movement or fan to ensure adequate ventilation, especially in confined area. Avoid contact with skin, eyes, and clothing.

**Environmental Exposure Controls:** Construct a dike to prevent spreading. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Hygiene Measures:** Wash hands, forearms and face thoroughly after handling chemical products, before eating and drinking, smoking or using the lavatory and at the end of the working period. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protective equipment:

**Respiratory** - In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Eye** - Splash proof safety glasses.

**Skin** - Rubber or plastic apron. Rubber or plastic gloves. Long sleeved clothing or wear protective sleeves. Remove and wash contaminated clothing before re-use.

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**Other protective equipment information** - Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Neoprene gloves. PVC disposable gloves. Nitrile rubber. Butyl rubber. Impervious gloves. (The breakthrough time of the selected glove(s) must be greater than the intended use period.)

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Form:</b>	Liquid
<b>Odor:</b>	Mild
<b>Color:</b>	Clear, Pale Yellow
<b>PH Value:</b>	Not Applicable
<b>Boiling Point:</b>	(>150°C)
<b>Melting Point:</b>	Not Applicable
<b>Vapor Pressure:</b>	4.7x10 <sup>-7</sup> mmHg @ 70°F
<b>Vapor Density:</b>	Not Applicable
<b>Density (Nominal):</b>	>1.0 g/cm <sup>3</sup> @ 70°F
<b>Solubility in water:</b>	Reacts with water
<b>Evaporation Rate (Butyl Acetate = 1):</b>	Not Applicable
<b>Volatile Organic Compounds:</b>	Nil

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## 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under normal conditions.

**Conditions to avoid:** Moisture. Excessive heat.

**Materials to avoid:** Water, alcohols, amines, strong bases, substances/products that react with isocyanates.

**Hazardous decomposition products:** Carbon dioxide. Carbon monoxide. Hydrogen cyanide. Nitrogen oxides. Aromatic isocyanates. Gases/vapors.

**Hazardous polymerization:** Under normal conditions hazardous polymerization will not occur.

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## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

**Oral** - LD50/rat: >5000 mg/kg

**Sensitization - Guinea pig: sensitizing**

**Inhalation Sensitization** - Guinea pig: No

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects:

**Biodegradability** - 28 days, 13% not readily biodegradable

**Acute Fish Toxicity** - 96 hr, LC50/Zebra Fish: 66 mg/l

**Aquatic Invertebrates** - 48 hr, EC50/Daphnia Magna: 88 mg/l

**Plants** -72 hr EC50/Scenedesmus Subspicatus: 113 mg/l

Harmful to aquatic organisms. May cause long term damage to environment.

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Dispose in accordance with federal, state and local regulations.

The generation of waste should be avoided or minimized wherever possible. Empty containers should be taken to an approved waste handling site for recycling or disposal. Incineration or landfill should only be considered when recycling is not feasible. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Refer to 40 CFR § 261.7 (residues of hazardous waste in empty containers).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. TRANSPORT INFORMATION

Regulatory Information	UN number	Classes	Packing Group	Proper Shipping Name
DOT				Not Regulated – Not Dangerous Goods
IATA				Not Regulated – Not Dangerous Goods
IMDG				Not Regulated – Not Dangerous Goods
TDG				Not Regulated – Not Dangerous Goods

## 15. REGULATORY INFORMATION

Country	Regulatory List	Notification
USA	TSCA	Included on Inventory
EU	EINECS	Listed under Polymer Exempt
Canada	DSL/CEPA	Included on Inventory
China	SEPA	Included on Inventory
Japan	ENCS	Included on Inventory

# Safety Data Sheet

**OSHA:** This product is considered to be a hazardous chemical under 29 CFR 1910.1200.

**RCRA** - Not a hazardous waste.

**Clean Air Act Section 112** - Hexamethylene Diisocyanate 822-06-0.

**SARA Section 311 AND 312** - This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: ACUTE, CHRONIC

**SARA Section 313** - This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: None.

## SARA Extremely Hazardous Substance (EHS) -

Component	CAS	% By Weight	RQ
hexamethylene diisocyanate	822-06-0	<0.5	100 lb

**California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)** - This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.

**Canada WHMIS** - Class D2B: Material causing other toxic effects.

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.**

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## 16. OTHER INFORMATION

### Hazardous Material Information System (HMIS):

<i>Scale 0-4</i>		<i>NFPA</i>	<i>HMIS</i>
4=Severe Hazard	Health	2	2
3=Serious Hazard	Flammability	1	1
2=Moderate Hazard	Reactivity	1	1
1=Slight Hazard			
0=Minimal Hazard			

THE INFORMATION AND RECOMMENDATIONS PRESENTED HEREIN ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE. USER MUST CONDUCT THEIR OWN TESTS TO DETERMINE THE SUITABILITY OF THESE PRODUCTS FOR THEIR PARTICULAR PURPOSES AND USAGE. BECAUSE OF NUMEROUS FACTORS AFFECTING RESULTS, PROREZ COATINGS, LLC AND ITS AFFILIATION MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR PURPOSE, OTHER THAN MATERIAL CONFORMS TO OUR APPLICABLE CURRENT SPECIFICATIONS. PROREZ COATINGS, LLC ASSUMES NO LEGAL RESPONSIBILITY FOR USE OR RELIANCE ON THE INFORMATION CONTAINED IN THIS SAFETY DATA SHEET.

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