



## SAFETY DATA SHEET

### SECTION 1 - Identification

#### 1.1 Product Identifier

Product Name • AQUAPOL® PI-13000-31 Prepolymer  
Synonyms • Aliphatic Isocyanate Prepolymer

#### 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use • Component for a Polyurethane

#### 1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer • Carpenter Co.  
5016 Monument Ave.  
Richmond, Virginia 23230  
(804) 233-0606

#### 1.4 Emergency Telephone

Chemtrec • (800) 424-9300 (24-hr number)  
Chemtrec – International • +1 703-741-5970

### SECTION 2 - Hazards Identification

#### 2.1 Classification of the Substance or Mixture

Acute Toxicity Inhalation Category 2 – H330  
Eye Irritation Category 2B – H320  
Skin Corrosion Category 2 – H315  
Skin Sensitization Category 1B – H317  
Respiratory Sensitization Category 1A – H334  
Specific Target Organ Toxicity Single Exposure Category 3 – H335

#### 2.2 GHS Label Elements

Hazard Pictogram



Signal Word

**DANGER**

Hazard Statements

H330 – Fatal if inhaled.  
H315 – Causes skin irritation.  
H320 – Causes eye irritation.  
H317 – May cause an allergic skin reaction.  
H334 – May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 – May cause respiratory irritation.

Precautionary Statements

<b>Prevention</b>	<p>P260 – Do not breathe vapors, spray, or mist.  P264 - Wash thoroughly after handling.  P271 – Use only outdoors or in a well-ventilated area.  P272 - Contaminated clothes should not be allowed out the workplace.  P270 - Do not eat, drink or smoke when using this product.  P280 - Wear protective gloves, protective clothing, and eye protection.  P284 – In case of inadequate ventilation wear respiratory protection.</p>
<b>Response</b>	<p>P314 - Get medical attention if you feel unwell.  P304+P340+P310 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a physician.  P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  P333+P313 - If skin irritation or rash occurs: Get medical attention.  P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  P337+P313 – If eye irritation persists: get medical attention.  P362+P364 – Take off contaminated clothing and wash it before reuse</p>
<b>Storage/Disposal</b>	<p>P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.  P405 – Store locked up.  P403+P233 - Store in a well-ventilated place. Keep container tightly closed.</p>

**2.3 Other Hazards**

- Refer to Section 11 Toxicological Information for additional toxicity information.
- Refer to Section 16 Other Information for HMIS and NFPA Codes.

**SECTION 3 - Composition/Information on Ingredients**

**3.1 Substance**

Material does not meet the criteria of a substance according to United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**3.2 Mixtures**

Name	Identifier	% (weight)
Isophorone diisocyanate	CAS# 4098-71-9	≤ 5.5

The specific chemical identity and/or exact percentage of component(s) have been withheld as a trade secret.

## SECTION 4 - First Aid Measures

### 4.1 Description of First Aid Measures

- |                            |   |
|----------------------------|---|
| By route of inhalation     | <ul style="list-style-type: none"><li>• Remove victim to fresh air. Administer oxygen or artificial respiration as needed. Seek immediate medical attention.</li></ul>                            |
| By route of dermal contact | <ul style="list-style-type: none"><li>• Remove contaminated clothing and shoes. Wash thoroughly with soap and water. Seek medical attention if irritation or rash develops.</li></ul>             |
| By route of eye contact    | <ul style="list-style-type: none"><li>• Flush with plenty of water for 30 minutes. Seek medical attention if discomfort persists.</li></ul>   |
| By route of ingestion      | <ul style="list-style-type: none"><li>• If victim is conscious, was out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention.</li></ul> |

### 4.2 Most Important Symptoms and Effects, Acute and Chronic

Refer to Section 11 Toxicological Information.

### 4.3 Indication of Immediate Medical Attention and Special Treatment If Needed

No additional information available

## SECTION 5 - Firefighting Measures

### 5.1 Extinguishing Media

- |                                |  |
|--------------------------------|--|
| Suitable Extinguishing Media   | <ul style="list-style-type: none"><li>• Dry chemical, foam, carbon dioxide, water fog or fine spray.</li></ul> |
| Unsuitable Extinguishing Media | <ul style="list-style-type: none"><li>• Do not use direct water spray. May spread fire.</li></ul>              |

### 5.2 Special Hazards Arising From the Substance or Mixture

- Fires may produce irritating toxic fumes and gases including oxides of carbon, nitrogen, and traces of HCN.
- Containers may explode when heated or if contaminated with water. Some of these materials may burn, but none ignite readily.

### 5.3 Special Protective Actions for Firefighters

- Responding personnel must wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing.

## SECTION 6 - Accidental Release Measures

### 6.1. Personal Precautions, Protective Equipment, and Emergency Procedures

Avoid any skin contact and avoid breathing vapors, mists or dusts. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Don protective equipment appropriate for the size of the spill. Keep unauthorized personnel away. Stay upwind. Do not walk through spilled material. Spilled material may be slippery. Ensure adequate ventilation and eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk.

### 6.2 Environmental Precautions

- Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. If required, notify the proper authorities.

### 6.3 Methods and Materials for Containment and Clean Up

#### Methods

- Stop leak and dam spill.
- Cover spill with an inert absorbent.
- Transfer waste into open-top drums and keep drum lid loose for at least 24 hours.
- Decontaminate spill area with a neutralization solution.
- LARGE SPILLS: Dike far ahead of spill to contain the material.

#### Materials

- Inert absorbent (sand, earth or similar).
- Neutralizing agent (90% water, 8% ammonia, 2% liquid detergent), and a drum with lid (to collect waste).
- Use appropriate Personal Protective Equipment (PPE).

### 6.4 Reference to Other Sections

- Refer to Section 8 for exposure control and personal protective equipment information.
- Refer to Section 12 for ecological information.

## SECTION 7: Handling and Storage

### 7.1 Precautions for Safe Handling

- Do not handle until all safety precautions have been read and understood.
- Do not breathe vapors, spray or mist.
- Do not use in areas without adequate ventilation.
- Avoid contact with eyes, skin, and clothing.
- Do not eat, drink or smoke while using this product.
- Use good safety and industrial hygiene practices.

### 7.2 Conditions for Safe Storage, Including any Incompatibilities

#### Storage

- Store materials in a cool (70-110°F), dry place. Do not transport with oxidizers.

#### Incompatibilities

- Keep away from water, amines, strong bases, alcohols, and copper alloys.

**SECTION 8: Exposure Controls/ Personal Protection**

**8.1 Control Parameters**

Exposure Limits/Guidelines

Isophorone diisocyanate	<u>OSHA PEL (ppm)</u> Not Established	<u>ACGIH TLV (ppm)</u> 0.005 TWA
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**8.2 Exposure Controls**

Engineering Controls	<ul style="list-style-type: none"> <li>• Use only in well ventilated areas. Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.</li> </ul>
Eye/Face Protection	<ul style="list-style-type: none"> <li>• Safety glasses with side shields for incidental use. Depending on the splash risk, chemical goggles or chemical goggles with a face shield may be needed.</li> </ul>
Respiratory Protection	<ul style="list-style-type: none"> <li>• If exposure concentrations may exceed applicable exposure limits or are unknown, use an appropriate NIOSH/MSHA approved respirator. Respirators should be selected in accordance with OSHA 1910.134.</li> </ul>
Skin Protection	<ul style="list-style-type: none"> <li>• Use chemical resistant gloves and suitable working clothes to avoid skin contact. Choose chemical resistant gloves appropriate for the intended use. Consult glove manufacturers for assistance in choosing appropriate gloves.</li> </ul>
Additional Protection Measures	<ul style="list-style-type: none"> <li>• Use near eyewash station and safety shower.</li> </ul>

**SECTION 9: Physical and Chemical Properties**

**9.1 Information on Physical and Chemical Properties**

Material Description			
Physical Form	• Liquid	Odor	• Pungent odor
Appearance	• No data available	Odor Threshold	• No data available
Color	• Colorless		
General Properties			
Boiling Point	• No data available	Melting Point	• No data available
Decomposition Temperature	• No data available	pH	• No data available
Density	• No data available	Water Solubility	• Insoluble
Solvent Solubility	• No data available	Viscosity	• No data available
Explosive Properties	• No data available	Oxidizing Properties	• No data available
Decomposition Temperature	• No data available	Specific Gravity/Relative Density	• 1.10-1.12 (H <sub>2</sub> O=1)
Volatility			
Vapor Pressure	• No data available	Vapor Density	• No data available
Evaporation Rate	• No data available	VOC (Vol.)	• No data available

Volatiles (Vol.)	• No data available		
<b>Flammability</b>			
Flash Point	• >200°F (PMCC)	LEL	• No data available
UEL	• No data available	Flammability (solid, gas)	• No data available
Auto-ignition Temperature	• No data available		
<b>Environmental</b>			
Octanol/Water Partition Coefficient	• No data available		

## 9.2. Other Information

No additional information available

## SECTION 10: Stability and Reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical Stability

Stable under normal temperatures and pressures.

### 10.3 Possibility of Hazardous Reactions

May occur at elevated temperatures.

### 10.4 Conditions to Avoid

Elevated temperatures and moisture. Contact with water may cause a buildup of carbon dioxide in containers causing the container to bulge and subsequently burst.

### 10.5 Incompatible Materials

Water, amines, strong bases, strong oxidizing agents.

### 10.6 Hazardous Decomposition Products

No hazardous decomposition products if handled and stored as recommended. At high temperatures: carbon monoxide, carbon dioxide, oxides of nitrogen may be formed.

## SECTION 11: Toxicological Information

### 11.1 Information on Toxicological Effects

#### Acute Toxicity

Chemical	LD50 oral rat	LD50 dermal rabbit	LC50 inhalation rat
Isophorone diisocyanate	>4000 mg/kg	1060 mg/kg	123 mg/m <sup>3</sup> , 4hr

Acute Inhalation = Acute toxicity inhalation category 2: Fatal if inhaled.  
May cause respiratory irritation, particularly if sprayed or heated.

#### Skin Corrosion/Irritation

- Skin Corrosion Category 2: Causes skin irritation.

#### Serious Eye Damage/Irritation

- Eye Irritation Category 2B: Causes eye irritation.

**Respiratory or Skin Sensitization**

- Skin Sensitization 1B - May cause an allergic skin reaction.
- Respiratory Sensitization Category 1A - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Germ Cell Mutagenicity**

- Available studies have not indicated this material to be a mutagen.

**Carcinogenicity**

- No component listed under IARC, NTP, or OSHA.

**Reproductive Toxicity**

- No data available

**Specific Target Organ Toxicity (single exposure) (STOT-SE)**

- Specific Target Organ Toxicity Single Exposure Category 3: May cause respiratory irritation.

**Specific Target Organ Toxicity (repeated exposure) (STOT-RE)**

- No data available

**Aspiration Hazard**

- No data available

**11.2 Potential Health Effects**

**Inhalation**

- |         |  |
|---------|--|
| Acute   | <ul style="list-style-type: none"> <li>• Can irritate the mucous membranes in the respiratory tract causing runny nose, sore throat, coughing, chest discomfort, and shortness of breath.</li> </ul>   |
| Chronic | <ul style="list-style-type: none"> <li>• Repeated overexposure or a single large dose may cause sensitization (asthma or asthma-like symptoms) that may cause some individuals to react later to diisocyanate exposure at levels well below the TLV or PEL.</li> </ul> |

**Skin**

- |         |   |
|---------|---|
| Acute   | <ul style="list-style-type: none"> <li>• Can cause irritation with symptoms of reddening, itching and swelling.</li> </ul>                        |
| Chronic | <ul style="list-style-type: none"> <li>• Prolonged contact can cause reddening, swelling, rash, and in some cases, skin sensitization.</li> </ul> |

**Eye**

- |         |   |
|---------|---|
| Acute   | <ul style="list-style-type: none"> <li>• Can cause irritation with symptoms of reddening, tearing, stinging, and swelling.</li> </ul>         |
| Chronic | <ul style="list-style-type: none"> <li>• Prolonged vapor contact may cause possible damage to the cornea and impairment of vision.</li> </ul> |

**Ingestion**

- |         |   |
|---------|---|
| Acute   | <ul style="list-style-type: none"> <li>• May cause gastrointestinal discomfort, including abdominal pain, nausea, vomiting and diarrhea.</li> </ul> |
| Chronic | <ul style="list-style-type: none"> <li>• None known.</li> </ul>   |

## SECTION 12: Ecological Information

### 12.1 Ecotoxicity

IPDI:

Toxicity to fish: LC50 (96 h)  $\geq$  72.3 mg/l, Brachydanio rerio (Method: Directive 92/69/EEC part C.1.)

Aquatic invertebrates: EC50 (48 h) 27 mg/l, Daphnia magna (Method: EC 92/69)

Aquatic plants: EC0 (72 h)  $>$  70 mg/l (growth rate), Scenedesmus subspicatus (Method: EC 92/69)

### 12.2 Persistence and Degradability

No data available

### 12.3 Bioaccumulative Potential

No data available

### 12.4 Mobility in Soil

No data available

### 12.5 Other Adverse Effects

No data available

## SECTION 13: Disposal Considerations

### 13.1 Waste Disposal Method

#### Product Waste

- Do not dump into any sewers, on the ground, or into any body of water.
- All disposal methods must be in compliance with Federal, State/Provincial, and local regulations.

#### Packaging Waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## SECTION 14: Transport Information

### U.S. DOT/IATA/IMDG

Not regulated as hazardous for shipping.



## SECTION 15: Regulatory Information

### 15.1 Regulatory Status

**CERCLA Hazardous Substances (40 CFR 302):** None reportable

#### EPRCA 304

Isophorone diisocyanate (RQ = 500 lbs)

#### SARA 302

Isophorone diisocyanate (TPQ = 500 lbs)

#### SARA 311/312:

Isophorone diisocyanate                      Acute health hazard. Chronic health hazard. Reactivity hazard.

#### SARA Section 313:

Diisocyanates (Category N120)              ≤ 5.5%

### 15.2 US State Regulations

STATE RIGHT-TO-KNOW: To the best of our knowledge, this product contains no chemical known to the State of California to cause cancer, birth defects, or other reproductive harm. (California Health and Safety Code Section 25249.6).

### 15.3 Canadian Regulations

**DSL:** Undetermined.

### 15.4 International Inventories\*

**United States:** All components of this product are listed on the TSCA inventory.

\*=Although a chemical may be listed on a country's inventory, it may not indicate a hazard or regulatory control for use.

## SECTION 16: Other Information

### 16.1 HMIS and NFPA RATINGS

#### HMIS Classification

Health: 3\*  
Flammability: 1  
Reactivity: 2

#### NFPA Ratings

Health: 3  
Flammability: 1  
Instability: 2  
Special: None

\*=Chronic

### 16.2 EU CLP Relevant Phrases

Available on request.

### 16.3 Preparation By

I.H. Department

**16.4 Preparation Date**

November 10, 2011

**16.5 Last Revision Date**

February 14, 2020 – Sections 1 and 14

**16.6 Disclaimer/Statement of Liability**

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