PZP-ZEO Safety Data Sheet
Revision Date: 09/01/2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 - Product Identifier
Product Name: PZP-ZEO

1.2 - Relevant identified uses of the substance or mixture and uses advised against Use of the substance/mixture: Filtration

1.3 - Details of the supplier of the safety data sheet
Ingersoll Rand Company
800D Beaty Street
Davidson NC 28036, USA
(P) 704-655-4000

1.4 - Emergency telephone number
Emergency number: 800-424-9300
Outside the U.S. Emergency number: +01 703-527-3887

SECTION 2: Hazards Identification

2.1 - Classification of the substance or mixture
GHS-US classification
Eye Dam, 1 H318
STOT SE 3 H335

2.2 - Label Elements
GHS-US labelling
Hazard pictograms (GHS-US):

- Exclamation mark
- Exclamation mark with flame

Signal word (GHS-US): Danger
Hazard Statements (GHS-US):
H318 – Causes serious eye damage
H335 – May cause respiratory irritation
Precautionary statements (GHS-US):
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray
P271 – Use only outdoors or in well-ventilated area.
P280 – Wear protective gloves/protective clothing/eye protection/face protection
P304+P340 – IF INHALED: Remover person to fresh air and keep comfortable for breathing.
P305+P351+P338 – If in the eyes: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing
P310 – Immediately call a POISON CENTER or doctor/physician.
P312 – Call a POISON CENTER or doctor/physician, if you feel unwell.
P403+P233 – Store in a well-ventilated place. Keep container tightly closed.
P405 – Store locked up
P501 – Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 - Other Hazards
No additional information available

2.4 - Unknown acute toxicity
No data available

SECTION 3: Composition/information on ingredients

3.1 - Substances
Not applicable

3.2 - Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
<th>GHS-US Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zeolite</td>
<td>(CAS No.) 1318-02-1</td>
<td>75.19 - 80.92</td>
<td>STOT SE 3, H335</td>
</tr>
<tr>
<td>Carbon</td>
<td>(CAS No.) 7732-18-5</td>
<td>33.09 - 35.09</td>
<td>Not classified</td>
</tr>
<tr>
<td>Water</td>
<td>(CAS No.) 7732-18-5</td>
<td>2.84 – 8.84</td>
<td>Not classified</td>
</tr>
<tr>
<td>N,N,N-Trimethyl-1-Hexadecanaminium Chloride</td>
<td>(CAS No.) 112-02-7</td>
<td>2.22 – 4.22</td>
<td>Skin Irritant 2, H315, Eye Damage 1, H318, Aquatic Acute 1, H400</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 - Description of first aid measures

First aid measures after inhalation: Remove person to fresh air. If not breathing, administer CPR or artificial respiration. Get immediate medical attention.
First aid measures after skin contact: If skin reddening or irritation develops, seek medical attention.
First aid after eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists get medical attention.
First aid measures after ingestion: If material is swallowed, get immediate medical attention or advice. DO NOT induce vomiting unless directed to do so by medical personnel.

4.2 - Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: May cause respiratory irritation.
Symptoms/injuries after skin contact: May cause skin irritation.
Symptoms/injuries after eye contact: May cause serious eye irritation.
Symptoms/injuries after ingestion: May be harmful if swallowed.

4.3 - Indication of any immediate medical attention and special treatment needed No additional information available.

SECTION 5: Firefighting measures

5.1 - Extinguishing media

Suitable extinguishing media: If involved with fire, flood with plenty of water. Unsuitable extinguishing media: None

5.2 - Special hazards arising from the substance or mixture

Fire hazard: None known
Explosion hazard: None known

5.3 - Advice for firefighting: Firefighters should wear full protective gear.

SECTION 6: Accidental release measures

6.1 - Personal precautions, protective equipment and emergency procedure
General measures: Avoid contact with the skin and the eyes. For non-emergency personnel: No additional information available. For emergency responders: No additional information available.

6.2 - Environmental precautions
None

6.3 - Methods and material for containment and cleaning-up
For containment: If possible, stop flow of product. Methods for cleaning-up: Shovel or sweep up and put in a closed container for disposal.

6.4 - Reference to other sections
No additional information available.

SECTION 7: Handling and storage

7.1 - Precautions for safe handling
Precautions for safe handling: Avoid contact with eyes.

7.2 - Conditions for safe storage, including any incompatibilities
Storage conditions: Protect containers from physical damage. Store in dry, cool, well-ventilated area.

7.3 - Specific end use(s)
No additional information available.

SECTION 8: Exposure controls/personal protection

8.1 - Control parameters
No additional information available

8.2 - Exposure controls
Appropriate engineering controls: Local exhaust and general ventilation must be adequate to meet exposure standards. Hand protection: Use impervious gloves. Eye Protection: Safety glasses. Skin and body protection: Wear suitable working clothes. Respiratory protection: If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

SECTION 9: Physical and chemical properties

9.1 - Information on basic physical and chemical properties
Physical state: Solid
Appearance: Irregular shaped
Color: White/black
Odor: No data available
Odor threshold: No data available
pH: No data available
Relative evaporation rate (Butyl acetate=1): No data available
Melting point: No data available
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Self-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): No data available
Vapor pressure: No data available
Relative vapor density at 20 °C: No data available
Relative density: 54-56 lb/ft³
Solubility: No data available
Log Pow: No data available
Log Kow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidizing properties: No data available
Explosive limits: No data available

9.2 - Other information
No additional information available

SECTION 10: Stability and reactivity

10.1 - Reactivity
No additional information.

10.2 - Chemical stability
Stable under normal conditions.

10.3 - Possibility of hazardous reactions
Will not occur

10.4 - Conditions to avoid
None

10.5 - Incompatible materials
Strong oxidizing and reducing agents

10.6 - Hazardous decomposition products
Carbon monoxide may be generated in the event of a fire. Organic chlorides, amines, hydrogen chloride may be produced.

SECTION 11: Toxicological information

11.1 - Information on toxicological effects
Acute toxicity: Not classified.

<table>
<thead>
<tr>
<th>Zeolite (1318-02-1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>5000 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
<td>2.4 mg/l (Exposure time: 1 h)</td>
</tr>
<tr>
<td>ATE (oral)</td>
<td>5000 mg/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carbon (7440-44-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potassium permanganate (7722-64-7)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 dermal rabbit</td>
<td>4300 uL/kg/24H</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Causes serious eye damage
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Zeolite (1318-02-1)

IARC group 3

Reproductive toxicity: Not classified
Specific target organ toxicity (single exposure): May cause serious eye damage. Specific target organ toxicity (repeated exposure): Not classified
Aspiration hazard: Not classified

SECTION 12: Ecological information

12.1 - Toxicity

<table>
<thead>
<tr>
<th>Zeolite (1318-02-1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fishes 1</td>
<td>1800 mg/l (Exposure time 96 h – Species: Brachydaniorerio [semi-static])</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>1000 – 1800 mg/l (Exposure time: 48 h – Species: Daphnia magna)</td>
</tr>
<tr>
<td>EC50 other aquatic organisms 1</td>
<td>18 mg/l (Exposure time: 96 h – Species: Desmodesmus subspicatus)</td>
</tr>
<tr>
<td>LC50 fish 2</td>
<td>3200 – 5600 mg/l (Exposure time 96 h – Species: Oryzias latipes [semi-static])</td>
</tr>
</tbody>
</table>

12.2 - Persistence and degradability
No additional information available

12.3 - Bioaccumulative potential
No additional information available

12.4 - Mobility in soil
No additional information available

12.5 - Other adverse effects
No additional information available

SECTION 13: Disposal Considerations

13.1 - Waste treatment methods
Waste disposal recommendations: Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transportation Information

In accordance with DOT / ADR / RID / ADNR / IMDG / ICAO / IATA

14.1 - UN number
Not applicable

14.2 - UN proper shipping name
Not applicable

SECTION 15: Regulatory Information

15.1 - US Federal regulations

N,N,N-Trimethyl-1-hexadecanaminium chloride (112-02-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
**Carbon (7440-44-0)**
Listed on the United States TSCA (Toxic Substances Control Act) inventory

**15.2 - US State regulations**
No additional information available

**SECTION 16: Other Information**
Full test of H-phases:

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute 1</td>
<td>Hazardous to the aquatic environment – Acute Hazard Category 1</td>
</tr>
<tr>
<td>Eye Damage 1</td>
<td>Serious eye damage/irritation Category 1</td>
</tr>
<tr>
<td>Skin Irritation 2</td>
<td>Skin corrosion/irritation Category 2</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>Specific target organ toxicity (single exposure) Category 3</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H355</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
</tbody>
</table>

NFPA health hazard: 2- Intense or continued exposure could cause temporary incapacitation or possible residual unless prompt medical attention is given.
NFPA fire hazard: 0 – Materials that will not burn.
NFPA reactivity: 0 – Normally stable, even under fire exposure conditions, and are not reactive with water.

*This information is based on our current knowledge and is intended to describe the product for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*