SAFETY DATA SHEET

1. Identification

Material name: PROGLAZE ALUMINUM
Material: 942810 323

Recommended use and restriction on use
  Recommended use: Sealant
  Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information
Tremco U.S Sealants
3735 Green Road
Cleveland OH 44122
US

Contact person: EH&S Department
Telephone: 216-292-5000
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards
  Carcinogenicity Category 1A

Unknown toxicity - Health
  Acute toxicity, oral 1.9 %
  Acute toxicity, dermal 5 %
  Acute toxicity, inhalation, vapor 100 %
  Acute toxicity, inhalation, dust or mist 99.1 %

Environmental Hazards
  Acute hazards to the aquatic environment Category 3

Unknown toxicity - Environment
  Acute hazards to the aquatic environment 99 %
  Chronic hazards to the aquatic environment 100 %

Label Elements

Hazard Symbol:

Signal Word: Danger
Hazard Statement: May cause cancer. Harmful to aquatic life.

Precautionary Statement: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response: If exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous silica</td>
<td>7631-86-9</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>Ethyltriacetoxyisilane</td>
<td>17689-77-9</td>
<td>1 - 5%</td>
</tr>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>0.5 - 1.5%</td>
</tr>
<tr>
<td>Mineral oil</td>
<td>8012-95-1</td>
<td>0.1 - 1%</td>
</tr>
<tr>
<td>Dibutyltin diacetate</td>
<td>1067-33-0</td>
<td>0.1 - 1%</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.

Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures
General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Methods and material for containment and cleaning up: Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters
Occupational Exposure Limits
<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous silica</td>
<td>TWA</td>
<td>20 millions of particles per cubic foot of air</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.8 mg/m³</td>
<td>US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)</td>
</tr>
<tr>
<td>Aluminum - Respirable</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td>Aluminum - Respirable</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Aluminum - Total dust.</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Mineral oil - Inhalable</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td>Mineral oil - Mist.</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Dibutyltin diacetate - as</td>
<td>STEL</td>
<td>0.2 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>0.1 mg/m³</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous silica -</td>
<td>TWA</td>
<td>4 mg/m³</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Amorphous silica -</td>
<td>TWA</td>
<td>1.5 mg/m³</td>
<td>Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Respirable.</td>
<td></td>
<td></td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Amorphous silica</td>
<td>TWAEV</td>
<td>10 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Amorphous silica -</td>
<td>TWA</td>
<td>6 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)</td>
</tr>
<tr>
<td>Respirable dust.</td>
<td></td>
<td></td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)</td>
</tr>
<tr>
<td>Mineral oil - Mist.</td>
<td>TWA</td>
<td>0.2 mg/m³</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td></td>
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<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
</tbody>
</table>
Appropriate Engineering Controls

Mechanical ventilation or local exhaust ventilation may be required. Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

- **General information:** Use personal protective equipment as required.
- **Eye/face protection:** Wear goggles/face shield.
- **Skin Protection Hand Protection:** Use suitable protective gloves if risk of skin contact.
- **Other:** No data available.
- **Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
- **Hygiene measures:** Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product.

### 9. Physical and chemical properties

**Appearance**

- **Physical state:** solid
- **Form:** Paste
- **Color:** Gray
- **Odor:** Sour/acidic
- **Odor threshold:** No data available.
- **pH:** No data available.
- **Melting point/freezing point:** No data available.
- **Initial boiling point and boiling range:** No data available.
- **Flash Point:** > 149 °C > 300 °F (Tag closed cup)
- **Evaporation rate:** Slower than Ether
- **Flammability (solid, gas):** No
- **Upper/lower limit on flammability or explosive limits**

<table>
<thead>
<tr>
<th></th>
<th>TWAEV</th>
<th>STEL</th>
<th>Health and Safety Regulation 296/97, as amended) (07 2007)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral oil - Mist.</td>
<td>5 mg/m$^3$</td>
<td>10 mg/m$^3$</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Mineral oil - Mist.</td>
<td>5 mg/m$^3$</td>
<td>10 mg/m$^3$</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)</td>
</tr>
</tbody>
</table>
Flammability limit - upper (%): No data available.
Flammability limit - lower (%): No data available.
Explosive limit - upper (%): No data available.
Explosive limit - lower (%): No data available.
Vapor pressure: No data available.
Vapor density: Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density: 1.04
Solubility(ies)
  Solubility in water: Practically Insoluble
  Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

10. Stability and reactivity
Reactivity: No data available.
Chemical Stability: Material is stable under normal conditions.
Possibility of Hazardous Reactions: No data available.
Conditions to Avoid: Avoid heat or contamination.
Incompatible Materials: Alcohols. Amines. Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases. Water, moisture.
Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information
Information on likely routes of exposure
Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact: Causes mild skin irritation.
Eye contact: Eye contact is possible and should be avoided.

Information on toxicological effects
Acute toxicity (list all possible routes of exposure)
  Oral
    Product: ATEmix: 45,243.01 mg/kg
Dermal
Product: No data available.

Inhalation
Product: No data available.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Serious Eye Damage/Eye Irritation
Product: No data available.

Specified substance(s):
- Amorphous silica in vivo (Rabbit, 24 hrs): Not irritating
- Ethyltriacetoxysilane in vivo (Rabbit, 24 - 72 hrs): Not irritating
- Aluminum in vivo (Rabbit, 24 hrs): Not irritating

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity
Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
- Mineral oil Overall evaluation: Not classifiable as to carcinogenicity to humans. Overall evaluation: Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:
- Mineral oil Known To Be Human Carcinogen.

- No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.
Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Aluminum
LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 0.31 mg/l Mortality

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
Aluminum
LC 50 (Water flea (Daphnia magna), 24 h): 3.5 mg/l Mortality
LC 50 (Rotifer (Brachionus calyciflorus), 24 h): > 3 mg/l Mortality
LC 50 (Ridged-beak peaclam (Pisidium compressum), 96 h): > 0.4 mg/l Mortality
LC 50 (Scud (Hyalella azteca), 96 h): > 1 mg/l Mortality
LC 50 (Snail (Amnicola limosa), 96 h): > 1 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
Aluminum
LOAEL (Pimephales promelas, 28 d): 11.9 mg/l experimental result
EC 50 (Pimephales promelas, 7 d): 0.695 mg/l experimental result
LOAEL (Salvelinus fontinalis, 30 d): 0.169 mg/l experimental result
EC 50 (Pimephales promelas, 7 d): 3.999 mg/l experimental result
EC 10 (Pimephales promelas, 7 d): 0.726 mg/l experimental result

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative Potential
Bioconcentration Factor (BCF)
Product: No data available.

Specified substance(s):
Aluminum
Brook trout (Salvelinus fontinalis), Bioconcentration Factor (BCF): 36 (Flow through)

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s):
Dibutyltin diacetate
Log Kow: 1.27

Mobility in Soil: No data available.

Other Adverse Effects: Harmful to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG: Not Regulated

CFR / DOT: Not Regulated

IMDG: Not Regulated
15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification
None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous silica</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Ethyltriacetoxysilane</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Aluminum</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Mineral oil</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Dibutyltin diacetate</td>
<td>500 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65
No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act
Chemical Identity
Amorphous silica

US. Massachusetts RTK - Substance List
Chemical Identity
Amorphous silica
US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Amorphous silica

US. Rhode Island RTK
No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:

- Regulatory VOC (less water and exempt solvent): 36 g/l
- VOC Method 310: 3.50%

Inventory Status:
- Australia AICS: All components in this product are listed on or exempt from the Inventory.
- Canada DSL Inventory List: All components in this product are listed on or exempt from the Inventory.
- EINECS, ELINCS or NLP: One or more components in this product are not listed on or exempt from the Inventory.
- Japan (ENCS) List: One or more components in this product are not listed on or exempt from the Inventory.
- China Inv. Existing Chemical Substances: All components in this product are listed on or exempt from the Inventory.
- Korea Existing Chemicals Inv. (KECI): All components in this product are listed on or exempt from the Inventory.
- Canada NDSL Inventory: One or more components in this product are not listed on or exempt from the Inventory.
- Philippines PICCS: All components in this product are listed on or exempt from the Inventory.
- US TSCA Inventory: All components in this product are listed on or exempt from the Inventory.
- New Zealand Inventory of Chemicals: All components in this product are listed on or exempt from the Inventory.
- Japan ISHL Listing: One or more components in this product are not listed on or exempt from the Inventory.
- Japan Pharmacopoeia Listing: One or more components in this product are not listed on or exempt from the Inventory.
16. Other information, including date of preparation or last revision

Revision Date: 08/13/2015
Version #: 1.0
Further Information: No data available.
Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.