SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Manufacturer’s name and address: ARDEX Engineered Cements
400 Ardex Park Dr.
Aliquippa, PA  15001   USA

Supplier’s name and address: Refer to Manufacturer

Information Telephone No. : (724) 203-5000
Website Address : http://www.ardexamericas.com
24 Hr Emergency Telephone #: CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)
Product Identifier : ARDEX CA 20 P
Trade Name/Synonyms : ARDEX CA 20 P
Material Use : Multi-Purpose Construction Adhesive and Sealant
Uses Advised Against : No information available

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)
Serious Eye Damage/Irritation, Category 2A.

GHS Pictograms

Signal Word 

Warning

Hazard Statements
Causes serious eye irritation.

Precautionary Statements
Wear protective gloves/eye protection. Wash hands and exposed skin thoroughly after handling. Protect from sunlight. Do not subject to grinding. Store in a dry, well ventilated place, in a closed container. Protect from freezing. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

During normal usage of the product as recommended, airbourne dusts will not be present. See Section 7 (Handling and Storage) for further details.

Hazards Not Otherwise Classified
Contact with moisture liberates methanol.

% With Unknown Acute Toxicity : Up to 35% by weight of this product consists of ingredients with unknown acute toxicity.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS
### Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>% (by weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-(Trimethoxysilyl)-propylamine</td>
<td>13822-56-5</td>
<td>1.00 – 5.00</td>
</tr>
<tr>
<td>Trimethoxyvinylsilane</td>
<td>2768-02-7</td>
<td>0.10 – 1.00</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>&lt; 0.1</td>
</tr>
</tbody>
</table>

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

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### SECTION 4 – FIRST AID MEASURES

#### General
- Call a Poison Center or doctor if you feel unwell.

#### Inhalation
- Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: call a doctor/physician.

#### Skin contact
- Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

#### Eye contact
- Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

#### Ingestion
- Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell.

#### Notes for Physician
- Treat symptomatically.

### Signs and symptoms of short-term (acute) exposure

#### Inhalation
- May cause minor, temporary irritation to respiratory tract. Symptoms may include coughing.

#### Skin
- May cause mild skin irritation. Symptoms may include redness and itching.

#### Eyes
- Causes serious irritation to eyes. Symptoms may include redness, itching, blurred vision or pain.

#### Ingestion
- Symptoms such as gastric pain, nausea, vomiting, and diarrhea may occur.

### Effects of long-term (chronic) exposure
- Not expected to cause additional health effects due to chronic exposure.

### Indication of need for immediate medical attention or special treatment
- Difficulty breathing persists after removing the person to fresh air.
- Any exposure to the eye which causes irritation.
- Ingestion.

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### SECTION 5 – FIRE FIGHTING MEASURES

#### Suitable extinguishing media
- Carbon dioxide, dry chemical powder, appropriate foam or water fog.

#### Unsuitable extinguishing media
- Water jet may spread the fire.

#### Hazardous combustion products
- Carbon monoxide, carbon dioxide, nitrogen oxides, and other toxic vapors and gases that are common to thermal degradation of organic compounds.

#### Special fire-fighting procedures/equipment
- Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

#### Environmental precautions
- Do not allow material to enter drains or contaminate ground water system.

#### Fire hazards/conditions of flammability
- Not flammable under normal conditions of use. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

- Not flammable

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### SECTION 6 – ACCIDENTAL RELEASE MEASURES
Personal precautions: Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate chemically protective equipment.

Protective equipment: Refer to Section 8 on this Safety Data Sheet, EXPOSURE CONTROLS / PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Emergency Procedures: If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002). Outside of the U.S. call the emergency number listed in Section 1.

US CERCLA Reportable quantity (RQ): Methanol: 5000 lbs. (2270 kg)

Methods and materials for containment and cleaning up:
- Ventilate area of release. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Contain product with inert absorbent material, preventing it from entering sewer lines or waterways. Gather up spilled material and contaminated absorbent material, and place in suitable container for later disposal (see Section 13). Residual of product, while still wet, can be cleaned up with warm soapy water. Spilled material may create a slip hazard. Notify the appropriate authorities as required.

Prohibited materials: None.

Environmental precautions: Do not allow product to enter drains or waterways. Do not allow material to contaminate ground water system.

Reference to other sections: See Section 13 for disposal information.

SECTION 7 – HANDLING AND STORAGE

Safe handling procedures: Observe good hygiene standards. Use only with adequate ventilation. Do not eat, drink or smoke in the work area. Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Avoid repeated or prolonged skin contact. Avoid breathing vapors or mists of this product. Sanding and grinding dusts may be harmful if inhaled. When removing this product from existing flooring (i.e. during a renovation), wear safety goggles and respiratory protection from dust due to blasting, chipping, or mechanically pulverizing. Wear protective clothing to prevent skin contact. Promptly remove any clothing that becomes contaminated. Clean contaminated clothing before reuse. Keep container tightly closed.

Storage requirements: Store in a cool, dry, well-ventilated area. Store away from heat and open flame. Avoid storing in direct sunlight. Keep from freezing. Store in original container. Keep tightly closed when not in use. Do not reuse empty container without commercial cleaning or reconditioning.

Incompatible materials: See Section 10.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits: No exposure limits have been established for the product itself. Below are exposure limits for the components in the product.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>TWA</th>
<th>STEL</th>
<th>PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-(Trimethoxysilyl)-propylamine</td>
<td>13822-56-5</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td>Trimethoxyvinylsilane</td>
<td>2768-02-7</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>200 ppm</td>
<td>250 ppm</td>
<td>260 mg/m³</td>
<td>325 mg/m³</td>
</tr>
</tbody>
</table>

Engineering Controls: Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

Personal Protection Equipment: Safety glasses must be worn when using this product.

Eye / face protection: Safety glasses must be worn when using this product.
Skin protection: Wear chemical resistant protective clothing and impervious gloves. Glove materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended.

Body protection: Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact.

Respiratory protection: If work process generates excessive quantities of vapor or dust, or exposures in excess of any PEL, wear an appropriate organic vapor respirator.

Site safety equipment: An eyewash station and safety shower should be made available in the immediate working area.

General hygiene considerations: Avoid contact with eyes, skin and clothing. Do not breathe vapors/dust. Do not eat, drink or smoke when using this product. Clean all equipment and clothing at end of each work shift.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Paste
Appearance: Off-white paste
Odor: None.
Odor threshold: N/A
pH: N/A
Specific gravity: 1.44
Boiling point: N/A
Coefficient of water/oil distribution: N/A
Melting/Freezing point: N/A
Solubility in water: insoluble
Vapor pressure (mm Hg @ 20°C / 68°F): N/A
Evaporation rate (n-Butyl acetate = 1): N/A
Vapor density (Air = 1): N/A
Volatiles (% by weight): N/A
Volatile organic compounds (VOCs): 0 g/L SCAQMD Rule 1168
Particle size: N/A
Flammability classification: Not flammable
Flash point: N/A
Lower flammable limit (% by vol): Not available
Flash point method: N/A
Upper flammable limit (% by vol): Not available
Auto-ignition temperature: N/A
Decomposition temperature: Not available
Viscosity: Not available
Oxidizing properties: Not available

Explosion data: Sensitivity to mechanical impact / static discharge: Not expected to be sensitive to mechanical impact or static discharge.

SECTION 10 – REACTIVITY AND STABILITY INFORMATION

Reactivity: Reaction with water (humidity, moisture) liberates Methanol.
Stability: Stable under the recommended storage and handling conditions prescribed.
Hazardous reactions: Hazardous polymerization does not occur.
Conditions to avoid: High temperatures.
Materials to avoid and incompatibility: Acids, Oxidizing agents, water.

Hazardous decomposition products: None known, refer to hazardous combustion products in Section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Routes of exposure: Inhalation: YES  Skin Absorption: NO  Skin and Eyes: Yes  Ingestion: YES
Symptoms of exposure: See Section 4.
Calculated Acute Toxicity Estimates for the Product

<table>
<thead>
<tr>
<th>Route</th>
<th>LC50 (4 hr)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Not Available</td>
<td></td>
</tr>
</tbody>
</table>

Toxicological data: There are no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.
### Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Inhalation, rat</th>
<th>Oral, rat</th>
<th>Dermal, rabbit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-(Trimethoxysilyl)propylamine</td>
<td>N/Av</td>
<td>&gt; 2000 mg/kg</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Trimethoxyvinylsilane</td>
<td>16.8 mg/L</td>
<td>7120 mg/kg</td>
<td>3540 mg/kg</td>
</tr>
<tr>
<td>Methanol</td>
<td>85.26 mg/L</td>
<td>5628 mg/kg</td>
<td>15800 mg/kg</td>
</tr>
</tbody>
</table>

### Skin corrosion or irritation
May cause mild irritation to skin.

### Serious eye damage / eye irritation
Seriously irritating to eyes.

### Respiratory or skin sensitization
None known.

### Germ cell mutagenicity
None known.

### Carcinogenic status
This product contains trace amounts of Crystalline silica. Crystalline silica (respirable size) is classified as carcinogenic by inhalation by IARC (Group 1), ACGIH (Group A2), NTP (Group 1) and OSHA (OSHA Select carcinogen). During normal usage of the product as recommended, airborne dusts will not be present. See Section 7 for more information. No other components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

### Reproductive toxicity
None known.

### Specific Target Organ Toxicity, Single Exposure
None known.

### Specific Target Organ Toxicity, Repeated Exposure
None known.

### Aspiration hazard
None known.

### Additional information
Trace amounts of Methanol are evolved when the product is exposed to moisture. At high levels of exposure, Methanol is known to be toxic to humans, and causes Central Nervous System effects as well as visual effects, including blindness. It has been associated with birth defects in laboratory animals. Evidence suggests that primates (including humans) are more sensitive to Methanol exposure than rats and other rodents. The level of Methanol evolved from this product is much lower than the levels investigated in the studies mentioned above.

### SECTION 12 – ECOLOGICAL INFORMATION

#### Environmental effects
The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

#### Ecotoxicological
No data is available on the product itself. Information on components is listed below.

3-(Trimethoxysilyl)propylamine [13822-56-5]
- NOEC, (72h), Desmodesmus subspicatus: 1.3 mg/L
- EC50, (5.75h), Pseudomonas putida: 43 mg/L
- LC50, (48h), Daphnia magna: 331 mg/L
- LC50, (96h), Brachidionrio rerio: 934 mg/L
- EC50 (72h), Desmodesmus subspicatus: > 603 mg/L

Trimethoxyvinylsilane [2768-02-7]
- EC50, (48h), Daphnia magna: 168.7 mg/L
- EC10, (5h), Pseudomonas putida: 1000 mg/L
- LC50, (96h), Oncorhynchus mykiss: 191 mg/L
- EC50, (7d), Pseudokirchneriella subcapitata: 210 mg/L

Methanol [67-56-1]
- EC50, (48h), Daphnia magna: > 10,000 mg/L
- LC50, (96h), Lepomis machrochirus: 15,400 mg/L

#### Biodegradability
No data available.

#### Bioaccumulative potential
No data available.

#### Mobility in soil
No data available.

#### PBT and vPvB assessment
No data available.

#### Other adverse effects
No data available.

### SECTION 13 – DISPOSAL CONSIDERATION

#### Handling for disposal
Handle waste according to recommendations in Section 7.
Methods of disposal: You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes. Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

Packaging: Handle contaminated packaging in the same manner as the product.

RCRA: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 – TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>Shipping Name</th>
<th>Class</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDG</td>
<td>None</td>
<td>This product is not regulated according to Canadian TDG regulations.</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>TDG Additional Information</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49 CFR/DOT</td>
<td>None</td>
<td>This product is not regulated according to US DOT regulations.</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>49 CFR/DOT Additional Information</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 15 – REGULATORY INFORMATION

Canadian Information:
This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR). This SDS contains all of the information required by the HPR.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on either the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

US Federal Information:
TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes:
Immediate (Acute) Health Hazard
Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

U.S. State Right To Know Laws
California Proposition 65: Warning! This product contains a chemical known to the State of California to cause cancer. It contains trace levels of crystalline silica.


SECTION 16 – OTHER INFORMATION
HMIS Rating: * - Chronic Hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe

Health: *1 Flammability 1 Physical Hazard 0 PPE: Gloves, safety glasses

Legend:
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL: Domestic Substances List
EPA: Environmental Protection Agency
GHS: Globally Harmonized System
HPR: Hazardous Products Regulations
IARC: International Agency for Research on Cancer
Inh: Inhalation
N/A: Not Available
N/Av: Not Applicable
NIOSH: National Institute of Occupational Safety and Health
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

Disclaimer of Liability
The Information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. ARDEX Engineered Cements will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein.

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