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 P 51™ Primer

Chemical Name: N/A
Chemical Family: Mixture
Chemical Formula: N/A
Trade Name/Synonyms: ARDEX P 51
Molecular Weight: 70011741
Material Use: Primer for porous substrates before applying ARDEX products.

Uses Advised Against: No information available.

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)
Not classified as hazardous.

GHS Pictograms
None.

Signal Word
None.

Hazard Statements
None.

Safe Handling Instructions: Avoid eye and skin contact. It is recommended to use safety glasses and gloves during handling. During installation process, adequate ventilation of the work area should be maintained. Although the adhesive is low VOC, persons who are sensitive to odors or chemicals should avoid the work area during installation. Keep container closed.

Hazards Not Otherwise Classified
None.

% With Unknown Acute Toxicity
Less than 1% by weight of this product is comprised of ingredients with unknown acute toxicity.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>% (by weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No hazardous ingredients:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

General: Call a doctor if you feel unwell.

Inhalation: If a worker develops breathing problems while working with this material, remove the worker to fresh air and keep at rest in a position comfortable for breathing.
Skin contact: Wash with plenty of soap and water. If irritations or symptoms develop, seek medical attention/advice.

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

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a doctor/physician if you feel unwell.

Notes for Physician: Treat symptomatically.

Signs and symptoms of short-term (acute) exposure

- **Inhalation**: None known.
- **Skin**: Symptoms may include mild redness or itching.
- **Eyes**: Symptoms may include mild redness, itching, or pain.
- **Ingestion**: None known.

Effects of long-term (chronic) exposure

- None known.

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.

**SECTION 5 – FIRE FIGHTING MEASURES**

Suitable extinguishing media: Carbon dioxide, dry chemical powder, alcohol foam or water spray.

Unsuitable extinguishing media: Water jet may spread the burning material.

Hazardous combustion products: Carbon monoxide, carbon dioxide, as well as other toxic vapors and gases which 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.

NFPA Rating

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>None</td>
</tr>
</tbody>
</table>

**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): None reported.

Methods and materials for containment and cleaning up

- Ventilate area of release. 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 place in suitable container for later
Prohibited materials: None known.

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: Wear suitable protective equipment during handling. (See Section 8.) Observe good hygiene standards. Use only with adequate ventilation. Wash thoroughly after handling. Avoid contact with eyes, skin, or clothing. 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. 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>ACGIH TLV TWA</th>
<th>STEL</th>
<th>OSHA PEL PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>No hazardous ingredients</td>
<td>N/Ap</td>
<td>N/Ap</td>
<td>N/Ap</td>
<td>N/Ap</td>
<td>N/Ap</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 generated from the handling of this product.

Personal Protection Equipment

Eye / face protection: Chemical goggles or safety glasses, as appropriate for the job.

Skin protection: Wear gloves which are impervious to the material. 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: Under normal conditions of use with adequate ventilation, respiratory protection should not be necessary. 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. Avoid breathing vapors/dust. Do not eat, drink or smoke when using this product. Upon completion of work, wash hands thoroughly. Remove soiled clothing and wash it thoroughly before reuse. Clean all equipment and clothing at end of each work shift.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Odor</th>
<th>pH</th>
<th>Boiling point</th>
<th>Melting/Freezing point</th>
<th>Vapor pressure (mm Hg @ 20°C / 68°F)</th>
<th>Vapor density (Air = 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Slightly sweet</td>
<td>7.6 – 8.2</td>
<td>&gt;100°C (212°F)</td>
<td>N/Av</td>
<td>N/Av</td>
<td>55 – 60% (includes water)</td>
</tr>
</tbody>
</table>

Appearance: Light pink liquid

Odor threshold: N/Av

Specific gravity: 1.036

Coefficient of water/oil distribution: N/Av

Solubility in water: Miscible

Evaporation rate (n-Butyl acetate = 1): N/Av

Volatiles (% by weight): 55 – 60% (includes water)
Volatile organic compounds (VOCs) : 19.3 g/L SCAQMD
Particle size : N/Av  Flammability classification : Not flammable
Flash point : >93.3°C (>200°F)  Lower flammable limit (% by vol) : Not available
Flash point method : Setaflash closed  Upper flammable limit (% by vol) : Not available
Auto-ignition temperature : N/Av  Decomposition temperature : Not available
Viscosity : N/Av  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 : Not reactive.
Stability : Stable under the recommended storage and handling conditions prescribed.
Hazardous reactions : Hazardous polymerization does not occur.
Conditions to avoid : Extreme heat.
Materials to avoid and incompatibility : Strong oxidizing agents.
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>Ingredient</th>
<th>LC50 (4 hr)</th>
<th>LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inhalation, rat</td>
<td>Oral, rat</td>
</tr>
<tr>
<td>No hazardous ingredients.</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
</tbody>
</table>

Toxicological data : No data exists for the product itself. See below for individual ingredient acute toxicity data.

Skin corrosion or irritation : May cause mild irritation to skin.
Serious eye damage / eye irritation : May cause mild, temporary irritation to eyes.
Respiratory or skin sensitization : None known.
Germ cell mutagenicity : None known.
Carcinogenic status : No components are classified as carcinogenic by IARC, ACGIH, NTP, or OSHA.
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 : N/Av

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.
Ecotoxicity: No data available.
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 ingredients appear on the Toxic Substances Control Act (TSCA) inventory.
CERCLA Reportable Quantity (RQ) (40 CFR 117.302): None reported.
SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.
SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classification: Not Hazardous.
SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product 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 or reproductive harm.
Other State Right to Know Laws: Not applicable.

SECTION 16 – OTHER INFORMATION

HMIS Rating

<table>
<thead>
<tr>
<th>Health:</th>
<th>1 Flammability</th>
<th>1 Physical Hazard</th>
<th>0 PPE: Gloves, safety glasses</th>
</tr>
</thead>
</table>

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/Av: Not Available
   N/Ap: 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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