

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. : (888) 512-7339 or (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 X 7 PLUS™ GRAY
Product ID No. : 70012611
Trade Name/Synonyms : X 7 PLUS Gray
Material Use : Use for setting quarry, moisture-insensitive stone, ceramic and all types of mosaic tile over concrete, masonry and cementitious surfaces.
Uses Advised Against : No information available.

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification per 29 CFR 1910.1200 (OSHA HCS 2012) and HPR (WHMIS 2015)

Skin Corr. 1
Eye Dam. 1
Carc. 1
STOT RE 1

GHS Pictograms



Signal Word

Danger

Hazard Statements

Causes severe skin burns and eye damage.
May cause cancer by inhalation.
Causes damage to lungs through prolonged or repeated inhalation.

Precautionary Statements

Obtain special instructions before use. (See Section 7.) Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection. Wash contaminated clothing before reuse. Protect from sunlight. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

Hazards Not Otherwise Classified

None

% With Unknown Acute Toxicity : Up to 66% by weight of this product consists of ingredients with unknown acute toxicity.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (by weight)
Portland cement	65997-15-1	30 – 60
Crystalline silica, quartz	14808-60-7	30 – 60
Calcium silicate	1344-95-2	5 - 10
Limestone	1317-65-3	1 – 5
Vinyl acetate copolymer	24937-78-8	1 - 5

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

SECTION 4 – FIRST AID MEASURES

- General** : Get medical attention if you feel unwell.
- Inhalation** : Remove person to fresh air and keep at rest in a position comfortable for breathing. Get medical attention.
- Skin contact** : Remove contaminated clothing. Flush affected skin with water. If irritation persists: 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/attention.
- Ingestion** : Rinse mouth. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.
- Notes for Physician** : Treat symptomatically.

Signs and symptoms of short-term (acute) exposure

- Inhalation* : Symptoms may include coughing and irritation.
- Skin* : Symptoms may include redness and itching. Contact with wet material, or moist areas of skin, causes skin burns.
- Eyes* : Direct contact may strongly irritate or burn the eyes. Could cause blindness.
- Ingestion* : Symptoms such as gastric pain, nausea, vomiting, and diarrhea may occur.

Indication of need for immediate medical attention or special treatment

In case of accident or illness, seek medical advice immediately (show label or SDS if possible).

SECTION 5 – FIRE FIGHTING MEASURES

- Suitable extinguishing media** : Carbon dioxide, dry chemical powder, foam.
- Unsuitable extinguishing media** : Water. Contact with water may cause hydration and formation of caustic alkaline material.
- Hazardous combustion products** : Calcium oxide, calcium oxalate, vinyl acetate, acetic acid, formic acid, formaldehydes, carbon monoxide, and carbon dioxide.
- 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.
- Flammability classification (OSHA 29 CFR 1910.1200, WHMIS 2015)** : Not flammable

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Restrict access to area until completion of clean-up.
- 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. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Contain material, preventing it from entering sewer lines or waterways. Using HEPA vacuum, or other dustless methods, gather up spilled material and place in suitable container for later disposal (see Section 13).
- Prohibited materials** : Avoid adding water, material becomes alkaline when wet.
- 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** : See Section 8 for additional information on Permissible Exposure Levels for individual components and recommendations for Personal Protection Equipment (PPE). Avoid breathing dust. Avoid contact with skin, eyes and clothing. Use localized ventilation system. Wash thoroughly after handling.
- 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.
- 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.

Threshold Limit Values for the Ingredients	CAS #	ACGIH TLV		OSHA PEL	
		TWA	STEL	PEL	STEL
Portland cement	65997-15-1	1 mg/m ³ (respirable, no asbestos and < 1% crystalline silica)	N/Av	15 mg/m ³ (Total dust); 5 mg/m ³ (respirable)	N/Av
Crystalline silica, quartz	14808-60-7	0.025 mg/m ³ (respirable fraction)	N/Av	0.05 mg/m ³ (respirable) (final rule limit)	N/Av
Calcium silicate	1344-95-2	10 mg/m ³	N/Av	15 mg/m ³	N/Av
Limestone	1317-65-3	TLV Withdrawn In 2007	N/Av	15 mg/m ³ (Total dust); 5 mg/m ³ (respirable)	N/Av
Vinyl acetate copolymer	24937-78-8	10 mg/m ³ (Total dust);	N/Av	15 mg/m ³ (Total dust);	N/Av

		3 mg/m ³ (respirable)		5 mg/m ³ (respirable)	
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- 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 dust generated from the handling of this product.
- Personal Protection Equipment**
- Eye / face protection** : Safety glasses or goggles must be worn when using this product
- Skin protection** : Use protective clothing that provide comprehensive protection (e.g. cotton, rubber). For hands, use protective gloves that provides comprehensive protection (e.g. rubber).
- Body protection** : Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact.
- Respiratory protection** : Use localized exhaust ventilation to control airborne dust.
- 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 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

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|--|---|
| Physical state : solid | Appearance : gray powder |
| Odor : No odor | Odor threshold : N/Av |
| pH : 10 – 12 | Specific gravity : 2.7 – 3.1 |
| Boiling point : N/Av | Coefficient of water/oil distribution : N/Av |
| Melting/Freezing point : N/Av | Solubility in water : < 55 g/L |
| Vapor pressure (mm Hg @ 20°C / 68°F) : N/Av | Evaporation rate (n-Butyl acetate = 1) : N/Av |
| Vapor density (Air = 1) : N/Av | Volatiles (% by weight) : N/Av |
| Volatile organic compounds (VOCs) : 0 g/L | |
| Particle size : N/Av | Flammability classification : Not flammable |
| Flash point : N/Av | Lower flammable limit (% by vol) : Not available |
| Flash point method : N/Av | Upper flammable limit (% by vol) : Not available |
| Auto-ignition temperature : N/Av | 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** : Contact with water may cause hydration and formation of caustic calcium hydroxide.
- 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**
: 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

Inhalation : Not Available
Oral : Not Available
Dermal : Not Available

Toxicological data : There are insufficient data for estimating the product's acute toxicity. Several components become caustic in the presence of water. See below for individual ingredient acute toxicity data.

Acute Toxicity Parameters for the Ingredients	CAS #	LC50, Inhalation mg/L, Rat, 4 hr	LD50, Oral mg/kg, rat	LD50, Dermal mg/kg, rabbit
Portland cement	65997-15-1	N/Av	N/Av	N/Av
Crystalline silica, quartz	14808-60-7	N/Av	N/Av	N/Av
Calcium silicate	1344-95-2	N/Av	N/Av	N/Av
Limestone	1317-65-3	N/Av	6,450	N/Av
Vinyl acetate copolymer	24937-78-8	N/Av	> 1,000	N/Av

Skin corrosion or irritation : Causes skin corrosion when wet.
Serious eye damage / eye irritation : Causes eye burns. May cause blindness.
Respiratory or skin sensitization : Portland cement may cause an allergic skin reaction, in hypersensitive individuals possibly due to trace amounts of chromium.
Germ cell mutagenicity : None known.
Carcinogenic status : This product contains 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). No other components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive toxicity : None known.
Specific Target Organ Toxicity, Single Exposure : May cause respiratory irritation.
Specific Target Organ Toxicity, Repeated Exposure : May cause lung damage upon repeated or prolonged exposure.
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.
Ecotoxicological : No data is available on the product itself.
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 : 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 : For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 – TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	None	This product is not regulated according to Canadian TDG regulations.	None	None	None
TDG Additional Information	None				
49 CFR/DOT	None	This product is not regulated according to US DOT regulations.	None	None	None
49 CFR/DOT Additional Information	None				

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
Chronic 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 Crystalline silica, quartz.

Other State Right to Know Laws:

Ingredient on State RTK Law?	CAS #	CA	MA	MN	NJ	NY	PA	RI
Crystalline silica, quartz	14808-60-7	No	Yes	Yes	Yes	No	Yes	Yes
Limestone	1317-65-3	No	Yes	No	Yes	No	Yes	Yes
Portland cement	65997-15-1	No	Yes	No	Yes	No	Yes	Yes
Vinyl acetate copolymer	24937-78-8	No	No	No	No	No	No	No

SECTION 16 – OTHER INFORMATION

HMIS Rating : * - Chronic Hazard 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe
*Health: *3 Flammability 0 Physical Hazard 1 PPE: B*
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/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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