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 TL 1000™
Product ID No.	: 70012351
Trade Name/Synonyms	: TL 1000
Material Use	: Tile Leveler, Self-Leveling Underlayment
Uses Advised Against	: No information available.

SECTION 2 – HAZARDS IDENTIFICATION

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

Danger

Skin corrosion/irritation, Category 1A Serious eye damage/eye irritation, Category 1 Carcinogenicity, Category 1A Specific target organ toxicity, single exposure; Respiratory tract irritation, Category 3 Specific target organ toxicity, repeated exposure, Category 1.

GHS Pictograms



Signal Word

Hazard Statements

Causes severe skin burns and eye damage. May cause cancer by inhalation. May cause respiratory irritation. 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. Use only outdoors or in a well-ventilated area. Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Store locked up. 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)
Crystalline silica, quartz	14808-60-7	30 – 60
Limestone	1317-65-3	10 – 30
Calcium aluminate cement	65997-16-2	10 – 30
Calcium sulfate	7778-18-9	5 – 10
Portland cement	65997-15-1	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	: 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	 Remove/Take off immediately all contaminated clothing. Flush affected skin with gently flowing lukewarm water for at least 20 minutes. Seek immediate 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. Call a POISON CENTER or doctor/physician if you feel unwell. 					
Notes for Physician	: Treat symptomatically.					
Signs and symptoms of sh	ort-term (acute) exposure					
Inhalation	: Symptoms may include coughing and shortness of breath.					
Skin	: Symptoms may include redness and itching. Contact with wet material, or moist areas of skin, causes skin burns. Skin thickening, cracking, or fissuring may occur.					
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.					
Effects of long-term (chron	nic) exposure					
	: Prolonged inhalation may cause adverse lung effects with symptoms including coughing and shortness of breath. Repeated or prolonged inhalation of fine dusts may cause severe scarring of the lungs, a disease called silicosis, and alveolar proteinosis (lower lung disease).					
Indication of need for immed	liate medical attention or special treatment					
	: Difficulty breathing persists after removing the person to fresh air.					
	Any burn to the skin.					
	Any exposure to the eye which causes irritation.					
	Ingestion.					

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, formic acid, formaldehydes, carbon monoxide, and carbon dioxide.			
Special fire-fighting procedures/equi	ipment			
:	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. 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 contain	nent 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). Avoid adding water, material becomes alkaline when wet. Notify the appropriate authorities as required.
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.
SE	CTION 7 – HANDLING AND STORAGE

Special instructions	: Mixing the product according to the directions in the Technical Data Sheet will produce airborne dusts, including crystalline silica. Wear a dust mast (N-95 or higher) while mixing. Use ventilation to control levels of dust in the work area.

Safe handling procedures	: Corrosive! Wear chemically resistant protective equipment during handling. Use in a well-ventilated area. Training the workers on the potential health hazards associated with product dust is important. Secondary inhalation exposures could occur when cleaning equipment, or when removing or laundering the clothing. Do not breathe dust. Avoid contact with skin, eyes and clothing. Avoid wet or humid conditions. Keep away from acids and incompatibles. Avoid and control operations which create dust. Keep containers tightly closed when not in use. 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. Keep tightly closed when not in use. Do not reuse empty container without commercial cleaning or reconditioning.

: See Section 10.

Incompatible materials

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	CAS #	ACGI	H TLV	OSHA	PEL
for the Ingredients		TWA	STEL	PEL	STEL
Limestone	1317-65-3	TLV Withdrawn In 2007	N/Av	15 mg/m ³ (Total dust); 5 mg/m ³ (respirable)	N/Av
Calcium aluminate cement	65997-16-2	1 mg/m ³ (as Aluminum metal and insoluble compounds)	N/Av	N/Av	N/Av
Calcium sulfate	7778-18-9	10 mg/m ³ (inhalable)	N/Av	15 mg/m ³ (Total dust); 5 mg/m ³ (respirable)	N/Av
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
Vinyl acetate copolymer	24937-78-8	10 mg/m ³ (Total dust); 3 mg/m ³ (respirable)	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

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 chemical goggles must be worn when using this product. Additionally, a face shield is recommended if splashing is possible.
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 dust, or exposures in excess of any PEL, wear an appropriate particulate respirator (dust mask). Mask should be rated at N-95 or higher.
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

Physical state	: solid	Appearance	:	gray powder
Odor	: No odor	Odor threshold	:	N/Av

рН	:	10 – 12	Specific gravity	:	2.7 – 3.1
Boiling point	:	N/Ap	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/Ap
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	:	High temperatures.
Materials to avoid and incompatibi	ilit	/
	:	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: N	O Skin and Eyes: Ye	s Ingestion: YES		
Symptoms of exposure	:	See Section 4.					
Calculated Acute Toxicity Estimate	s 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, and therefore should not be inhaled, ingested, or allowed to contact skin. See below for individual ingredient acute toxicity data.					
Acute Toxicity Parameters		CAS #	LC50, Inhalation	LD50, Oral	LD50, Dermal		
for the Ingredients			mg/L, Rat, 4 hr	mg/kg, rat	mg/kg, rabbit		
Limestone		1317-65-3	N/Av	6,450	N/Av		

Limestone	1317-03-3	IN/AV	0,450	
Calcium aluminate cement	65997-16-2	N/Av	N/Av	N/Av
Calcium sulfate	7778-18-9	N/Av	> 3,000	NAv
Portland cement	65997-15-1	N/Av	N/Av	N/Av
Vinyl acetate copolymer	24937-78-8	N/Av	> 1,000	N/Av
Crystalline silica, quartz	14808-60-7	N/Av	N/Av	N/Av

Skin corrosion or irritation	uses skin corrosion when wet.				
Serious eye damage / eye irritation	uses eye burns. May cause blindness.				
Respiratory or skin sensitization	rtland cement may cause an allergic skin reaction, in hypersensitiv ssibly due to trace amounts of chromium.	e individuals			
Germ cell mutagenicity	ne known.				
Carcinogenic status	s product contains Crystalline silica. Crystalline silica (respirable s ssified as carcinogenic by inhalation by IARC (Group 1), ACGIH (C P (Group 1) and OSHA (OSHA Select carcinogen). No other comp ed as carcinogens by ACGIH, IARC, OSHA or NTP.	Group A2),			
Reproductive toxicity	ne known.				
Specific Target Organ Toxicity, Single Exposure					
	y cause respiratory irritation.				
Specific Target Organ Toxicity, Repeated Exposure					
	y cause lung damage upon repeated or prolonged exposure.				
Aspiration hazard	ne known.				
Additional information	٨v				

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 Methods of disposal	Handle waste according to recommendations in Section 7. 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

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 None Additional Information

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.

Ingredient on State RTK Law?	CAS #	CA	MA	MN	NJ		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
Calcium aluminate cement	65997-16-2	No	No	No	No	No	No	No
Calcium sulfate	7778-18-9	No	Yes	No	Yes	No	Yes	No
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

Other State Right to Know Laws:

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: G
	Gloves, safety glasses, and dust respirator
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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