

MATERIAL SAFETY DATA SHEET

SECTION 1 – 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: 1-800255-3924 OR 1-813-248-0585 (call collect)
Product Identifier : **ARDEX TRM™ Transportation Repair Mortar**
Chemical Name : N/Ap Chemical Family : Mixture
Chemical Formula : N/Ap Trade Name/Synonyms : ARDEX TRM
Molecular Weight : N/Ap Material Use : Fast-setting, horizontal concrete repair mortar

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

SECTION 2 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW : **DANGER! Corrosive. Causes eye burns. May cause skin burns. Contact with wet material or moist areas of the skin causes skin burns. Symptoms may be delayed. May cause respiratory irritation. Contains material that could cause lung damage. Possible cancer hazard – contains material which may cause cancer.**

Material Description : Gray powder. No odor.

GHS Pictograms:



GHS Class: Eye Damage, Category 1
Skin Irritant, Category 2
Skin Sensitizer, Category 1
Specific Target Organ Toxicity, Category 1
Acute Toxicity Inhalation, Category 4
Carcinogen, Category 1A

Hazard Statements: Causes serious eye damage
Causes skin irritation
May cause an allergic skin reaction
May cause respiratory irritation
Causes damage to organs through prolonged or repeated exposure
Harmful if inhaled
May cause cancer by inhalation.

Precautionary Statements: Do not breathe dust/fume/gas/mist/vapours/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash hands thoroughly after handling.
Store locked up.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Take off contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Use only outdoors or in a well-ventilated area.
In case of inadequate ventilation wear respiratory protection.
Store locked up.
Dispose of contents/container in accordance with Local, State, Federal and Provincial regulations.
Do not pour down drains.

Emergency Overview: Irritant.

Route of Exposure: Eyes. Skin. Inhalation. Ingestion.

Potential Health Effects:

Eye: May cause irritation, burns and permanent tissue damage.
Skin: May cause irritation, dry skin, redness, discomfort or burns.
Inhalation: Prolonged or repeated inhalation may cause lung damage.
Prolonged and repeated inhalation of respirable crystalline silica can cause silicosis, a chronic lung disease characterized by fibrosis and scarring of the lung tissue resulting in a decrease in lung function, breathlessness, wheezing, coughing and sputum production.
Ingestion: May cause irritation. Ingesting large amounts may cause injury.

Signs/Symptoms: Product is alkali when wet, excessive and prolonged exposure can cause severe irritation, burns and permanent tissue damage.

Aggravation of Pre-Existing Conditions: May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

OSHA Classification : This material is classified as hazardous under OSHA regulations (29 CFR Part 1910.1200).

WHMIS Classification : Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material); Class E (Corrosive Material)

POTENTIAL HEALTH EFFECTS

Target organs : Lungs; Eyes; Skin.
Routes of Exposure : *Inhalation*: YES *Skin Absorption*: NO *Skin and Eyes*: Yes *Ingestion*: YES

Signs and symptoms of short-term (acute) exposure

Inhalation : May cause severe irritation to the nose, throat, and respiratory tract. Symptoms may include coughing, shortness of breath, wheezing, and reduced lung function.
Skin : Direct contact may cause mild to severe irritation with possible burns. Contact with wet material or moist areas of the skin, causes skin burns. Skin thickening, cracking, or fissuring may also occur. Symptoms may be delayed.
Eyes : Direct contact may strongly irritate or burn the eyes. Could cause blindness.
Ingestion : May cause severe irritation to the mouth, throat, and stomach. Symptoms may include burning pain, vomiting, and diarrhea.

Effects of long-term (chronic) exposure

: Prolonged inhalation may cause adverse lung effects with symptoms including coughing, mucous production, and difficulty breathing. Repeated or prolonged inhalation of fine dusts may cause severe scarring of the lungs, a disease called silicosis, and alveolar proteinosis (lower lung disease). Symptoms may include coughing, shortness of breath, and eventually severe respiratory impairment.

Conditions aggravated by overexposure

- Carcinogenic status** : Pre-existing skin, eye, and respiratory disorders.
: Cancer hazard. See TOXICOLOGICAL INFORMATION, Section 11.
Additional health hazards : See TOXICOLOGICAL INFORMATION, Section 11.
Potential environmental effects : See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
Crystalline silica (Quartz)	14808-60-7	30 - 60 by weight
Portland cement	65997-15-1	10 - 30 by weight
Calcium aluminate cement	5997-16-2	10 - 30 by weight
Anhydrite Calcium Sulfate	14798-04-0	1 - 5 by weight
Calcium sulfate	7778-18-9	1 - 5 by weight
Undisclosed/Non-hazardous	No Data	1 - 5 by weight
Silicon dioxide amorphous	60676-86-0	1 - 5 by weight

SECTION 4 – FIRST AID MEASURES

- Inhalation** : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel only. If not breathing, clear airway and start artificial respiration. Seek immediate medical attention/advice.
- 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** : Immediately flush eyes thoroughly with running water for at least 20 to 30 minutes. Seek immediate medical attention/advice.
- Ingestion** : Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting. Have victim drink one to two glasses of water. Seek immediate medical attention/advice.
- Notes for Physician** : Treat symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

- Flammable Properties:** Non Flammable.
- Flash Point:** No information.
- Flash Point Method:** Data not available.
- Auto Ignition Temperature:** Data not available.
- Lower Flammable/Explosive Limit:** Data not available.
- Upper Flammable/Explosive Limit:** Data not available.
- Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

Hazardous Combustion Byproducts: Oxides of carbon, oxides of nitrogen and other organic substances may be formed.

NFPA Ratings:
NFPA Health: 1
NFPA Flammability: 1
NFPA Reactivity: 0
NFPA Other:

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personnel Precautions: Use proper personal protective equipment as listed in Section 8. Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.

Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.

Methods for containment: Contain spills with an inert absorbent material such as soil, sand or oil dry.

Methods for cleanup: Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section.

SECTION 7 – HANDLING AND STORAGE

Handling: Use with adequate ventilation. Avoid breathing vapor and contact with eyes, skin and clothing.

Storage: Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use.

Work Practices: Use good laboratory practice when working with chemicals. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Special Handling Procedures: Material is alkaline when mixed with water. Use precaution and proper protective equipment.

Hygiene Practices: Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Good general ventilation should be sufficient to control airborne levels. Otherwise, use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls including use of a biosafety cabinet / fume hood to control airborne levels below recommended exposure limits.

Eye/Face Protection: Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description: Protective laboratory coat, apron, or disposable garment recommended.

Hand Protection Description: Use impervious gloves. Nitrile gloves are recommended.

Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Other Protective: Follow good industrial hygiene practices when handling this material.

PPE Pictograms:



EXPOSURE GUIDELINES

Crystalline silica (Quartz) :
Guideline ACGIH: TLV-TWA: 0.025 mg/m³ Respirable fraction (R)

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State Appearance: Solid or powder.

Color: Gray

Odor: Little to no odor.

Odor Threshold: No Data

Boiling Point: > 1832 °F (>1000 °C)

Melting Point: No Data

Specific Gravity: No Data

Solubility: 0.1 to 1.0% in water.

Coefficient of water/oil distribution: No Data

Vapor Density: No Data

Vapor Pressure: None.

Evaporation Rate: No Data

% Volatiles (by weight): N/Av

Volatile Organic Content: 0

pH: No Data

Flash Point: No information.

Flash Point Method: Data not available.

Auto Ignition Temperature: Data not available.

SECTION 10 – REACTIVITY AND STABILITY INFORMATION

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Avoid high temperature condition. Avoid contact with incompatible materials.
Incompatible Materials:	Not applicable.
Special Decomposition Products:	Oxides of carbon, oxides of nitrogen and other organic substances may be formed.

SECTION 11 – TOXICOLOGICAL INFORMATION

Crystalline silica (Quartz) :

RTECS Number: VV7330000

Inhalation: Inhalation - Rat TCLo - Lowest published toxic concentration : 248 mg/m³/6H [Lungs, Thorax, or Respiration - Other changes Biochemical - Metabolism (intermediary) - Other proteins Biochemical - Metabolism (intermediary) - Effect on inflammation or mediation of inflammation]
Inhalation - Rat TCLo - Lowest published toxic concentration : 248 mg/m³/6H [Lungs, Thorax, or Respiration - Changes in lung weight Immunological Including Allergic - Increase in cellular immune response Biochemical - Metabolism (intermediary) - Effect on inflammation or mediation of inflammation]
Inhalation - Rat TCLo - Lowest published toxic concentration : 200 mg/kg [Lungs, Thorax, or Respiration - Fibrosis, focal (pneumoconiosis) Lungs, Thorax, or Respiration - Other changes Nutritional and Gross Metabolic Changes in iron]
Inhalation - Mouse TCLo - Lowest published toxic concentration : 40 mg/kg [Lungs, Thorax, or Respiration - Other changes]
Inhalation - Mouse TCLo - Lowest published toxic concentration : 40 mg/kg [Immunological Including Allergic - Decrease in cellular immune response]
Inhalation - Rat TCLo - Lowest published toxic concentration : 1 mg/kg (RTECS)

Ingestion: Oral - Rat TDLo - Lowest published toxic dose : 120 gm/kg [Gastrointestinal - Hypermotility, diarrhea Gastrointestinal - Other changes] (RTECS)

Chronic Effects: Prolonged and repeated inhalation of respirable crystalline silica can cause silicosis, a chronic lung disease characterized by fibrosis and scarring of the lung tissue resulting in a decrease in lung function, breathlessness, wheezing, coughing and sputum production.

Carcinogenicity: IARC: Group 1: Carcinogenic to humans.

Silicon dioxide amorphous :

RTECS Number: VV7328000

Inhalation: Inhalation - Rat TCLo - Lowest published toxic concentration : 197 mg/m³/6H/26W (Intermittent) [Lungs, Thorax, or Respiration - Changes in lung weight] (RTECS)

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.

Environmental

Fate: No environmental information found for this product.

SECTION 13 – DISPOSAL CONSIDERATION

classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines. Triple-rinse drum prior to offering for recycle, reconditioning or disposal. Dispose of rinsate in an environmentally acceptable manner consistent with applicable waste management.

SECTION 14 – TRANSPORTATION INFORMATION

DOT Shipping Name: Non regulated.
DOT Hazard Class: Non regulated.
TDG Shipping Name: Non regulated.
TGD Hazard Class: Non regulated.
IATA Shipping Name: Non regulated.
IMDG UN Number : Non regulated.

SECTION 15 – REGULATORY INFORMATION

SARA: This product contains chemicals which are subject to the reporting requirements of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III (40CFR, Part 372).

California PROP 65: The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
WARNING! This product contains a chemical known to the State of California to cause cancer.

Crystalline silica (Quartz) :
TSCA Inventory Status: Listed

Canada DSL: Listed

Silicon dioxide amorphous :
TSCA Inventory Status: Listed

Canada DSL: Listed

SECTION 16 – OTHER INFORMATION

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
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. This Material Safety Data Sheet is valid for three (3) years.

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