

## SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION

Product Identifier : **ARDEX 100% Solids Epoxy Adhesive Part B (Hardener)**  
Product Code Number : 70046451  
Trade Name/Synonyms : ARDEX 100% Solids Epoxy Adhesive Hardener  
Material Use : High performance 100% Solids Epoxy Adhesive for all types of tile and stone.  
Uses Advised Against : Use only as recommended in the product's Technical Data Sheet.

**Manufacturer's name and address:**



ARDEX L.P.  
400 Ardex Park Dr.  
Aliquippa, PA 15001 USA

**Canadian Importer's name and address**



ARDEX Canada, Inc.  
44 Chipman Hill  
Suite 1000  
Brunswick House  
Saint John, NB  
E2L 2A9  
CANADA  
905-673-2739 (office), Information only.  
613-282-7964 (cell), Information only.  
**See emergency number below.**

Information Telephone No. : 1(888)-512-7339 or 1(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)**

### SECTION 2 – HAZARDS IDENTIFICATION

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

: Skin Corrosion/Irritation, 1  
Eye Corrosion/Irritation, 1  
Skin Sensitization, 1

**GHS Pictograms**

:



**Signal Word**

: Danger

**Hazard Statements**

: Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.

**Precautionary Statements**

Do not breathe dust/vapors. Wear protective gloves/protective clothing/eye protection. Wash hands and exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not subject to grinding. Store locked up. Dispose of contents / container in accordance with federal, state, and local laws. Do not allow product to enter drains.

Under normal conditions of use, this product will not generate airborne dust. Avoid operations such as grinding, sanding or sawing that produce airborne dust.

**Hazards Not Otherwise Specified** : None.

**% Unknown acute toxicity** : 90% by weight of this product consists of ingredients with unknown acute inhalation toxicity. 60% by weight of this product consists of ingredients with unknown acute oral and dermal toxicities.

### SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (by weight)
Crystalline silica, quartz	14808-60-7	60 – 100
Triethylenetetramine	112-24-3	10 – 30
Polyamide resin	68410-23-1	1 – 5
Hydrophobic silica	67762-90-7	1 – 5
Aminoalkoxysilane	1760-24-3	1 – 5
Isophoronediamine	2855-13-2	1 – 5
Titanium dioxide, TiO <sub>2</sub>	13463-67-7	1 – 5

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

### SECTION 4 – FIRST AID MEASURES

**General** : IF exposed or concerned: Get medical advice/attention.

**Inhalation** : Remove the person to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin contact** : Remove/Take off immediately all contaminated clothing. Rinse SKIN with soap and water/shower. 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 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* : Symptoms may include coughing or irritation.

*Skin* : Direct skin contact may cause skin burns.

*Eyes* : Direct contact to the eyes can cause chemical burns, corneal damage, and possibly blindness. Exposure to low vapor concentrations may cause swelling (edema) of the eyes, resulting in blurring of vision with a bluish haze and/or appearance of halos around lights.

*Ingestion* : May cause severe irritation and corrosive damage in the mouth, throat and stomach. Symptoms may include abdominal pain, vomiting, burns, and bleeding.

#### Effects of long-term (chronic) exposure

: Prolonged inhalation may cause adverse lung effects with symptoms including coughing and shortness of breath. Some individuals may experience a sensitization reaction of the skin after an initial exposure. Subsequent exposures may cause a hypersensitive skin reaction (rash, swelling).

#### 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.  
Chemical burns to the skin. Blue color of the skin (cyanotic) after exposure.  
Ingestion.

### SECTION 5 – FIRE FIGHTING MEASURES

**Suitable extinguishing media** : Water fog/mist, dry chemical, carbon dioxide, foam.

**Unsuitable extinguishing media** : High pressure water jet may spread the fire.

**Hazardous combustion products** : Carbon monoxide carbon dioxide, nitrogen oxides and other vapors and toxic gases.

**Fire hazards/conditions of flammability**

- : Not classified for flammability per GHS. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

**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 fog 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 product to enter drains or contaminate ground water systems.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Personal precautions**

- : Corrosive! See Section 7 for safe handling procedures. Wear chemically resistant personal protective equipment during cleanup. Restrict access to area until completion of clean-up. All persons dealing with clean-up must be properly trained and wear the appropriate chemically protective equipment. Refer to Section 8 for additional information on acceptable personal protective equipment.

**Environmental precautions**

- : Do not allow product to enter waterways. Do not allow material to contaminate ground water system.

**Spill response / clean-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 disposal. (See Section 13.) Residual material can be cleaned up with warm, soapy water. Notify the appropriate authorities as required.

**Prohibited materials**

- : Avoid strong oxidizing agents and isocyanates. Do not allow spilled material to mix with epoxy resins. Chemical reaction with epoxy resins causes polymerization and release of heat energy.

**Special spill response procedures**

- : This product does not contain any chemicals that must be reported to the EPA in the event of a spill or release. For advice on chemical spills with this product, call the emergency number listed in Section 1.

US CERCLA Reportable quantity (RQ): None Reported.

## SECTION 7 – HANDLING AND STORAGE

**Safe handling procedures**

- : Corrosive! Do NOT get into eyes, on skin or on clothing. Do NOT breathe vapor. Observe good hygiene standards. Wash thoroughly after handling. Sanding and grinding dusts may be harmful if inhaled. When removing this product from existing installations (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.

**Storage requirements**

- : Store locked up. 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 levels**

- : No exposure limit has been established for the product itself. The following are the exposure limits for the product components.

Ingredients	CAS #	ACGIH TLV		OSHA PEL	
		TLV	STEL	PEL	STEL
Crystalline silica, quartz	14808-60-7	0.025 mg/m <sup>3</sup> (respirable fraction)	N/Av	0.05 mg/m <sup>3</sup> (respirable) (final rule limit)	N/Av

Triethylenetetramine	112-24-3	1 ppm (skin)	N/Av	N/Av	N/Av
Polyamide resin	68410-23-1	N/Av	N/Av	N/Av	N/Av
Hydrophobic silica	67762-90-7	10 mg/m <sup>3</sup> (total dust); 3 mg/m <sup>3</sup> (respirable)	N/Av	6 mg/m <sup>3</sup> NIOSH	N/Av
Aminoalkoxysilane	1760-24-3	N/Av	N/Av	N/Av	N/Av
Isophoronediamine	2855-13-2	N/Av	N/Av	N/Av	N/Av
Titanium dioxide, TiO <sub>2</sub>	13463-67-7	10 mg/m <sup>3</sup>	N/Av	15 mg/m <sup>3</sup>	N/Av

**Ventilation and engineering measures:** 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

: Safety glasses must be worn when using this product.

##### Hand protection

: Wear impervious gloves. Materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended. Refer to glove manufacturer for breakthrough time for the chemicals in this product. (See Section 3.)

##### Body protection

: Wear chemical resistant protective clothing. 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.

##### Other protective 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

<b>Physical state</b>	: Liquid	<b>Appearance</b>	: White paste
<b>Odor</b>	: Amine	<b>Odor threshold</b>	: N/Av
<b>pH</b>	: 11 - 13	<b>Specific gravity</b>	: 2.1
<b>Boiling point</b>	: N/Av	<b>Coefficient of water/oil distribution</b>	: N/Av
<b>Melting/Freezing point</b>	: N/Av	<b>Solubility in water</b>	: Not soluble
<b>Vapor pressure (mm Hg @ 20°C / 68°F)</b>	: N/Av		
<b>Evaporation rate (n-Butyl acetate = 1)</b>	: N/Av	<b>Viscosity</b>	: N/Av
<b>Vapor density (Air = 1)</b>	: N/Av	<b>Volatiles (% by weight)</b>	: N/Av
<b>Volatile organic compounds (VOCs)</b>	: 2.67 g/L A+B, ASTM D2369		
<b>Flammability classification (OSHA 29 CFR 1910.1200)</b>	: Non-flammable		
<b>Flash point</b>	: >100°C (>212°F)	<b>Lower flammable limit (% by vol)</b>	: N/Av
<b>Flash point method</b>	: Setaflash closed cup	<b>Upper flammable limit (% by vol)</b>	: N/Av
<b>Auto-ignition temperature</b>	: N/Av	<b>Oxidizing properties</b>	: None
<b>Flame projection length</b>	: Not available	<b>Flashback observed</b>	: Not available
<b>Explosion data: Sensitivity to mechanical impact / static discharge</b>	: Not expected to be sensitive to mechanical impact or static.		

## SECTION 10 – REACTIVITY AND STABILITY INFORMATION

<b>Reactivity</b>	: Product is formulated to react with epoxides, forming a polymer. This reaction evolves heat.
<b>Stability</b>	: Stable under the recommended storage and handling conditions prescribed.
<b>Hazardous polymerization</b>	: Hazardous auto-polymerization does not occur.
<b>Conditions to avoid</b>	: High temperatures.
<b>Materials to avoid and incompatibility</b>	

: Oxidizing agents, isocyanates.

**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* : > 40 mg/L  
*Oral* : > 6,000 mg/kg  
*Dermal* : > 4,000 mg/kg

**Toxicological data** : See below for individual ingredient acute toxicity data.

Ingredients	CAS No.	LC50 (4 hr) Inhalation, rat, mg/L	LD50 Oral, rat mg/kg	Dermal, rabbit mg/kg
Crystalline silica, quartz	14808-60-7	N/Av	N/Av	N/Av
Triethylenetetramine	112-24-3	N/Av	2500	805
Polyamide resin	68410-23-1	N/Av	> 2000	> 2000
Hydrophobic silica	67762-90-7	N/Av	> 1000 (Max dose in study)	> 2000
Aminoalkoxysilane	1760-24-3	1.49 - 2.44 (1 hr)	2413	>2009 (rat)
Isophoronediamine	2855-13-2	> 5.01	1030	> 2000
Titanium dioxide, TiO <sub>2</sub>	13463-67-7	> 6.82	> 24,000	> 10,000

**Repeated Dose Effects** : None known.

**Carcinogenic status** : This product contains Crystalline silica (quartz), which is listed as a known human carcinogen (by inhalation) by IARC (Group 1) and NTP. Titanium dioxide is suspected to be carcinogenic by inhalation (IARC 2B). Under normal conditions of use, this product will not produce airborne dust. Avoid operations such as grinding, sanding or sawing which will produce airborne dust. See Section 7.

**Reproductive Toxicity** : This product contains trace amounts of methanol (< 0.1%).

**Teratogenicity** : None known.

**Mutagenicity** : None known.

**Epidemiology** : Not available.

**Target Organ Effects** : None known.

**Sensitization to material** : Contains components which are known to cause skin sensitization reactions.

**Synergistic materials** : Not available.

**Irritancy/Corrosivity** : Corrosive to skin and eyes.

**Other important hazards** : See hazards listed in Section 2.

## 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.

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	UN 2735	Amines, liquid, corrosive, n.o.s. (Contains: Triethylenetetramine, Isophoronediamine)	8	II	
TDG Additional Information	This product ships as a Limited Quantity per TDGR 1.17.				
49 CFR/DOT	UN 2735	Amines, liquid, corrosive, n.o.s. (Contains: Triethylenetetramine, Isophoronediamine)	8	II	
49 CFR/DOT Additional Information	This product ships as a Limited Quantity per 49 CFR 173.154 (b).				

## 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 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:

Skin Corrosion/Irritation, Category 1

Eye Corrosion/Irritation, Category 1

Skin Sensitization, Category 1

Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The threshold for this product is 10,000 pounds.

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: See product label for information regarding Proposition 65.

Other State Right to Know Laws:

Component	CAS	CA	MA	MN	NJ	NY	PA	RI
Crystalline silica, quartz	14808-60-7	No	Yes	Yes	Yes	No	Yes	Yes
Triethylenetetramine	112-24-3	No	Yes	No	Yes	No	Yes	No
Isophoronediamine	2855-13-2	No	No	Yes	Yes	No	No	No
Titanium dioxide	13463-67-7	No	Yes	Yes	Yes	No	Yes	Yes

## SECTION 16 – OTHER INFORMATION

HMIS Rating : \* - Chronic Hazard 0 - Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe  
*Health: \*2 Flammability 1 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 determines the adequacy of the safety procedures employed during the use of this product. No warranty of any kind is given or implied. ARDEX L.P. 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.

**Prepared By:**  
ARDEX L.P.  
400 Ardex Park Drive  
Aliquippa, PA, U.S.A.  
15001

(724) 203-5000  
Visit our Website: <http://www.ardexamericas.com>

**Revision date:** : 05-Jan-2024

**End of Document**