

MATERIAL SAFETY DATA SHEET

Section 1 - Identification

Manufacturer's name and address:

Supplier's name and address:



Refer to Manufacturer

Ardex Engineered Cements

400 Ardex Park Drive
Aliquippa, PA, U.S.A. 15001

Information Telephone No. : (724) 203-8499
Visit our Website: <http://www.ardex.com>

24 Hr. Emergency Tel # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)

Product Identifier : **Ardex D14 Premixed Tile Adhesive**

Chemical Name : N/Ap **Chemical Family** : Mixture.

Chemical Formula : N/Ap **Trade Name/Synonyms** : Ardex D14

Molecular Weight : N/Ap **Material Use** : Filled, water-based adhesive

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

SECTION 2 - HAZARDS IDENTIFICATION

Classification : WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). WHMIS classification:
Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material);
Class D2B (Materials Causing Other Toxic Effects, Toxic Material).

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200). Hazardous classification:
Acute Health Hazard;
Chronic Health Hazard.

Emergency overview: : Paste. White to off-white. Mild odour.
Caution! May be harmful if inhaled or swallowed. May cause respiratory irritation. May cause headache, nausea, dizziness and other symptoms of central nervous system depression. May cause skin irritation. Contains particles which may cause lung damage or cancer if inhaled in large quantities.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation : May cause irritation of the nose, throat, mucous membranes, and respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.

Skin : Direct, short contact may cause mild to moderate skin irritation.

Eyes : May cause mild transient irritation.

Ingestion : Ingestion of large amounts may cause stomach irritation. May cause nausea, vomiting, and diarrhea.

Effects of long-term (chronic) exposure

: Prolonged or repeated skin exposure may cause redness, a burning sensation, drying and cracking of the skin (dermatitis). If dusts are formed, prolonged inhalation may cause scarring of lung tissue, a disease called silicosis.

Carcinogenic status : Possible 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

<u>Ingredients</u>	CAS #	Wt.%
stoddard solvent	8052-41-3	1.00 - 5.00
Urea	57-13-6	1.00 - 3.00
Calcium carbonate	1317-65-3	40.00 - 70.00
Palygorskite (attapulgitite)(short fibres, <5 micrometers)	12174-11-7	1.00 - 3.00
Crystalline silica, quartz	14808-60-7	0.10 - 1.00
potassium hydroxide	1310-58-3	0.10 - 0.30

Note: This product does NOT contain asbestos.

SECTION 4 - FIRST AID MEASURES

Inhalation	: If inhaled, move to fresh air. If breathing has stopped, give artificial respiration. If irritation persists, seek prompt medical attention.
Skin contact	: Remove contaminated clothing. Wash off with soap and plenty of water. If irritation persists, seek prompt medical attention.
Eye contact	: Flush with plenty of water. If irritation persists, seek prompt medical attention.
Ingestion	: Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting. Get medical attention.
Notes For Physician	: Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES**Fire hazards/conditions of flammability**

- : Not flammable under normal conditions of use. However, may ignite if exposed to extreme heat and flame. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

Flammability classification (OSHA 29 CFR 1910.1200)

- : OSHA Combustible Liquid IIIB.

Oxidizing properties

- : None.

Explosion data: Sensitivity to mechanical impact / static discharge

- : Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media

- : Dry chemical, foam, carbon dioxide and water fog.

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.

Hazardous combustion products

- : Carbon oxides; Nitrogen oxides (NOx); Sulphur oxides; Phosphorus compounds; Hydrocarbons; Aldehydes; Ammonia; Other unidentified organic compounds.

NFPA Rating

- | | | | | |
|-------------|-----------------|----------------|------------------|------------|
| 0 - Minimal | 1 - Slight | 2 - Moderate | 3 - Serious | 4 - Severe |
| Health: 1 | Flammability: 1 | Instability: 0 | Special Hazards: | None |

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. Refer to point 8 on this Safety Data Sheet, EXPOSURE CONTROLS / PERSONAL PROTECTION, 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/cleanup** : 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. Use inert, non-combustible absorbents to assist the pick up of material. Scrape up product and place it into a container for disposal. Refer to Section 13 for disposal of contaminated material. Residual of product, while still wet, can be cleaned up with warm soapy water. Notify the appropriate authorities as required.
- Prohibited materials** : None known.
- Special spill response 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).
US CERCLA Reportable quantity (RQ): None reported.

SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : Wear suitable protective equipment during handling. Use with adequate ventilation. Training the workers on the potential health hazards associated with product vapor, dust or fume is important. Secondary inhalation exposures could occur when cleaning equipment, or when removing or laundering the clothing. Avoid breathing vapors, fumes or dust. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from oxidizing materials. Keep containers tightly closed when not in use. Wash thoroughly after handling.
- Storage requirements** : Store in a cool, dry, well-ventilated area. Do not store near any incompatible materials (see Section 10). Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect against physical damage.
- Incompatible materials** : Oxidizing agents; Strong acids
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

<u>Ingredients</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
stoddard solvent	100 ppm	N/Av	500 ppm	N/Av
Urea	10 mg/m ³ (AIHA WEEL)	N/Av	N/Av	N/Av
Calcium carbonate	N/Av	N/Av	15 mg/m ³ (total dust); 5 mg/m ³ (respirable)	N/Av
Palygorskite (attapulgite)(short fibres, <5 micrometers)	N/Av	N/Av	N/Av	N/Av
Crystalline silica, quartz	0.025 mg/m ³ (respirable)	N/Av	0.1 mg/m ³ (final rule limit)	N/Av
potassium hydroxide	2 mg/m ³ (Ceiling)	N/Av	2 mg/m ³ (Ceiling) (final rule limit)	N/Av

Ventilation and engineering measures

- Use with adequate ventilation. Provide adequate cross air circulation. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.
- Respiratory protection** : Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Advice should be sought from respiratory protection specialists.
- Skin protection** : Where contact is likely, impervious gloves are recommended. Advice should be sought from glove suppliers.
- Eye / face protection** : If splashing might occur, wear eye protection such as safety glasses with side shields.
- Other protective equipment** : Wear sufficient clothing to prevent skin contact. 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, fumes or 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	: paste	Appearance	: White to off-white
Odour	: Mild odour.	Odour threshold	: N/Av
pH	: 8.5 - 9.1		
Boiling point	: N/Av	Specific gravity	: 1.64
Melting/Freezing point	: N/Av	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: dispersible
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: 64.9 g/L (0.542 lbs/gal)	Volatiles (% by weight)	: 28.5 - 31.5%
Particle size	: N/Av	General Info.	: No additional information.
Flash point	: N/Av		
Flash point Method	: N/Av	Auto-ignition temperature	: N/Av
Lower flammable limit (% by vol.)	: Not applicable.	Upper flammable limit (% by vol.)	: Not applicable.
Flame Projection Length	: Not applicable.	Flashback observed	: Not applicable.

SECTION 10 - REACTIVITY AND STABILITY DATA

Stability and reactivity	: Stable under the recommended storage and handling conditions prescribed.
Hazardous polymerization	: Hazardous polymerisation does not occur.
Conditions to avoid	: Extreme heat. Avoid contact with incompatible materials. Do not use in areas without adequate ventilation.
Materials To Avoid And Incompatibility	: Oxidizing agents; Strong acids
Hazardous decomposition products	: None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs	: Eyes, skin, respiratory system and digestive system.
Routes of exposure	: <i>Inhalation</i> : YES <i>Skin Absorption</i> : NO <i>Skin & Eyes</i> : YES <i>Ingestion</i> : YES
Toxicological data	: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

<u>Ingredients</u>	<u>LC₅₀(4hr)</u>	<u>LD₅₀</u>	
	<u>inh, rat</u>	<u>oral</u>	<u>dermal</u>
stoddard solvent	> 5500 mg/m ³	> 5000 mg/kg	> 3000 mg/kg
Urea	N/Av	8471 mg/kg	> 21,000 mg/kg
Calcium carbonate	N/Av	6450 mg/kg	N/Av
Palygorskite (attapulgite)(short fibres, <5 micrometers)	N/Av	N/Av	N/Av
Crystalline silica, quartz	N/Av	N/Av	N/Av
potassium hydroxide	N/Av	205 mg/kg	> 1260 mg/kg

- Carcinogenic status** : This product contains Crystalline silica - Quartz. Crystalline silica - Quartz is classified as carcinogenic by IARC (Group 1), ACGIH (Group A2), NTP (Group 1) and OSHA (OSHA Select carcinogen).
Contains the following chemical(s) listed as Group 3 (Not Classifiable) by IARC: Attapulgate.
- Reproductive effects** : Not expected to have other reproductive effects.
- Teratogenicity** : Not expected to be a teratogen.
- Mutagenicity** : Not expected to be mutagenic in humans.
- Epidemiology** : Not available.
- Sensitization to material** : Not expected to be a skin or respiratory sensitizer.
- Synergistic materials** : N/Av
- Irritancy** : Mild to moderate skin irritant. Mild eye irritant.
- other important hazards** : See Section 3 for additional information.
- Conditions aggravated by overexposure** : Pre-existing skin, eye and respiratory disorders.


SECTION 12 - ECOLOGICAL INFORMATION

- Ecotoxicity** : No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
- Mobility** : No data is available on the product itself.
- Persistence** : No data is available on the product itself.
- Bioaccumulation potential** : No data is available on the product itself.
- Other Adverse Environmental effects** : None known or reported by the manufacturer.

SECTION 13 - DISPOSAL CONSIDERATIONS

- 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** : 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	Not regulated.	not regulated	none	
TDG Additional information	None.				
49CFR/DOT	None	Not regulated.	not regulated	none	
49CFR/DOT Additional information	None.				

SECTION 15 - REGULATORY INFORMATION

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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. 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.

US State Right to Know Laws:

California Proposition 65: This product contains chemicals known to the State of California to cause cancer and/or reproductive harm. Contains: Crystalline silica, quartz. This product may contain trace levels of the following ingredients: Ethyl acrylate; Ethylene oxide; 1,4-Dioxane.

Other U.S. State "Right to Know" Lists: The following chemicals are specifically listed by individual States: Calcium carbonate (MA, MN, NJ, PA, RI); stoddard solvent (CA, MA, MN, NJ, PA, RI); Urea (MN); Crystalline silica, quartz (CA, MA, MN, NJ, PA, RI); Potassium hydroxide (CA; MA; MN; NJ; PA; RI).

SECTION 16 - OTHER INFORMATION**Legend**

: ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
CA: California
CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
DOT: Department of Transportation
EPA: Environmental Protection Agency
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
Inh: Inhalation
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MN: Minnesota
N/Av: Not Available
N/Ap: Not Applicable
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TWA: Time Weighted Average
WEEL: Workplace Environmental Exposure Level
WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2011.
2. International Agency for Research on Cancer Monographs, searched 2011.
3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2011 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists - October 2006 version.
6. California Proposition 65 List - July 29, 2011 version.

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.

Prepared By:

Ardex Engineered Cements

400 Ardex Park Drive

Aliquippa, PA, U.S.A.

15001

(724) 203-8499

Visit our Website: <http://www.ardex.com>

MSDS Preparation Date (dd/mm/yyyy)

: 22/08/2011

MSDS Reviewed Date (dd/mm/yyyy)

: 26/07/2012

Revision No.

: 2

Revision Information

: (M)SDS sections updated:
2. HAZARDS IDENTIFICATION;
3. COMPOSITION/INFORMATION ON INGREDIENTS;
5. FIRE-FIGHTING MEASURES;
8. EXPOSURE CONTROLS / PERSONAL PROTECTION;
9. PHYSICAL AND CHEMICAL PROPERTIES;
11. TOXICOLOGICAL INFORMATION ;
15. REGULATORY INFORMATION.

END OF DOCUMENT