

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 CA 20 P**
Chemical Name : N/Ap Chemical Family : Mixture
Chemical Formula : N/Ap Trade Name/Synonyms : ARDEX CA 20 P
Molecular Weight : N/Ap Material Use : Multi-Purpose Construction
Adhesive and Sealant

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 : **CAUTION. MAY CAUSE RESPIRATORY TRACT IRRITATION. REPEATED OR EXCESSIVE INHALATION OF VAPOR MAY CAUSE IRRITATION, COUGHING OR SHORTNESS OF BREATH. FREQUENT PERSISTENT CONTACT WITH SKIN CAN CAUSE IRRITATION. MAY CAUSE EYE IRRITATION. CONTACT WITH MOISTURE LIBERATES METHANOL. OVEREXPOSURE TO METHANOL MAY CAUSE DROWSINESS, NAUSEA AND VOMITING. Protect from Freezing.**

Material Description : Off-white paste. No odor.

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

WHMIS Classification : This product is not a controlled material, in accordance with the hazard criteria of the "Controlled Products Regulations" (CPR).

POTENTIAL HEALTH EFFECTS

Target organs : Lungs; Eyes; Skin.

Routes of Exposure : *Inhalation:* YES *Skin Absorption:* YES *Skin and Eyes:* Yes *Ingestion:* YES

Signs and symptoms of short-term (acute) exposure

Inhalation : May cause irritation to the nose, throat, and respiratory tract. Symptoms may include coughing or shortness of breath.

Skin : Direct contact may cause irritation with redness and swelling. Methanol may be absorbed through the skin, with overexposure causing drowsiness, nausea, and vomiting.

Eyes : Direct contact may cause temporary redness, irritation, and pain.

Ingestion : May cause mild irritation to the mouth, throat, and stomach. Ingesting large amounts may cause drowsiness, nausea and vomiting.

Effects of long-term (chronic) exposure

: Not expected to cause additional health effects due to chronic exposure.

Conditions aggravated by overexposure

: Pre-existing skin, eye, and respiratory disorders.

Carcinogenic status

: See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards : See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects : See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 – COMPOSTION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (by weight)	ACGIH TLV		OSHA PEL	
			TWA	STEL	PEL	STEL
Calcium Carbonate	471-34-1	60.00 – 100.00	10 mg/m ³	N/Av	15 mg/m ³ (Total dust); 5 mg/m ³ (respirable)	N/Av
Silyl terminated polyether	75009-88-0	30.00 – 60.00	N/Av	N/Av	N/Av	N/Av
Amide wax	N/Av	1.00 – 5.00	N/Av	N/Av	N/Av	N/Av
3-(Trimethoxysilyl)-propylamine	13822-56-5	1.00 – 5.00	N/Av	N/Av	N/Av	N/Av
Trimethoxyvinylsilane	2768-02-7	0.10 – 1.00	N/Av	N/Av	N/Av	N/Av
Methanol	67-56-1	< 0.1	200 ppm	250 ppm	260 mg/m ³	325 mg/m ³

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

Fire hazards/conditions of flammability

: Not flammable under normal conditions of use. 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)

: Non-flammable

Flash point	: Not applicable	Lower flammable limit (% by vol)	: Not applicable
Flash point method	: Not applicable	Upper flammable limit (% by vol)	: Not applicable
Auto-ignition temperature	: N/Av	Oxidizing properties	: None
Flame projection length	: Not applicable	Flashback observed	: Not applicable

Explosion data: Sensitivity to mechanical impact / static discharge

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

Suitable extinguishing media : Dry chemical, carbon dioxide, water spray, and foam. Do not use full water jet.

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 : Nitrogen oxides; Carbon monoxide; Carbon dioxide.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Wear chemically resistant personal protective equipment during cleanup. Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Refer to Section 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 / clean-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. Take up spilled material mechanically. Take up residues with absorbent material (e.g. sand, sawdust, diatomaceous earth). Gather up spilled material and contaminated absorbent material, and place in suitable container for later disposal (see Section 13). Spilled material may create a slip hazard.
- Prohibited materials** : None.
- 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 protective clothing, safety glasses with side shields, and impervious gloves, such as nitrile rubber with > 120 minutes break-through time (EN 374) during handling. Use in a well-ventilated area. Do not breathe vapors. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from acids and incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling.
- Storage requirements** : Store in a cool, dry, well-ventilated area. No smoking in the 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. Protect from freezing!
- 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

- Ventilation and engineering measures** : 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. If the TLV is exceeded, a NIOSH/MSHA-approved respirator is advised.
- Skin protection** : Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.
- Eye / face protection** : Safety glasses must be worn when using this product.
- Other protective equipment** : Protective clothing is recommended to prevent 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. Do not breathe vapors. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.
- Permissible exposure levels** : For individual ingredient exposure levels, see Section 3.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

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|-----------------------|-----------|-------------------------|-------------------|
| Physical state | : Paste | Appearance | : Off-white paste |
| Odor | : No odor | Odor threshold | : N/Av |
| pH | : N/Av | Specific gravity | : 1.444 |

Boiling point	: N/Av	Coefficient of water/oil distribution	: N/Av
Melting/Freezing point	: N/Av	Solubility in water	: virtually insoluble
Vapor pressure (mm Hg @ 20°C / 68°F)	: N/Av	Evaporation rate (<i>n</i>-Butyl acetate = 1)	: N/Av
Vapor density (Air = 1)	: N/Av	Volatiles (% by weight)	: N/Av
Volatile organic compounds (VOCs)	: 0 g/L	General information	: N/Av
Particle size	: N/Av	Flammability properties	: See Section 5.

SECTION 10 – REACTIVITY AND STABILITY INFORMATION

Stability and reactivity	: Stable under the recommended storage and handling conditions prescribed.
Hazardous polymerization	: Hazardous polymerization does not occur.
Conditions to avoid	: Extreme heat.
Materials to avoid and incompatibility	: Acids; Oxidizing agents, water.
Hazardous decomposition products	: Contact with moisture liberates Methanol.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicological data	: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.
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Ingredients	LC50 (4 hr) Inhalation, rat	LD50	
		Oral, rat	Dermal, rabbit
Calcium carbonate	N/Av	6450 mg/kg	N/Av
Silyl terminated polyether	N/Av	N/Av	N/Av
Amide wax	5110 mg/m ³	> 2000 mg/kg	> 2000 mg/kg
3-(Trimethoxysilyl)-propylamine	N/Av	> 2000 mg/kg	> 2000 mg/kg
Trimethoxyvinylsilane	16.8 mg/L	7120 mg/kg	3540 mg/kg
Methanol	85.26 mg/L	5628 mg/kg	15800 mg/kg

Carcinogenic status	: This product does not contain any materials classified as carcinogenic by IARC, ACGIH, NTP, or OSHA.
Reproductive effects	: None known.
Teratogenicity	: None known.
Mutagenicity	: None known.
Epidemiology	: Not available.
Sensitization to material	: Not available.
Synergistic materials	: N/Av
Irritancy	: Moderately irritating to eyes.
Other important hazards	: See Section 2 for additional information.

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.
Important environmental characteristics	: N/Av
Ecotoxicological	: No data is available on the product itself. Data on individual components is as follows: Calcium carbonate [471-34-1] IC50, (72h), Algae: > 1000 mg/L LC50, (96h), fish: > 1000 mg/L EC50, (48h), Daphnia magna: > 1000 mg/L Amide wax NOEC, (72h), Algae: 37 mg/L

NOAEL, (48h), Daphnia magna: 45 mg/L
 EC50, (48h), Daphnia magna: 94.9 mg/L
 EC50, (72h), Algae: 43.2 mg/L
 LC50, (96h), fish: > 100 mg/L
 3-(Trimethoxysilyl)propylamine [13822-56-5]
 NOEC, (72h), Desmodesmus subspicatus: 1.3 mg/L
 EC50, (5.75h), Pseudomonas putida: 43 mg/L
 LC50, (48h), Daphnia magna: 331 mg/L
 LC50, (96h), Brachidanio rerio: 934 mg/L
 EC50 (72h), Desmodesmus subspicatus: > 603 mg/L
 Trimethoxyvinyl silane [2768-02-7]
 EC50, (48h), Daphnia magna: 168.7 mg/L
 EC10, (5h), Pseudomonas putida: 1000 mg/L
 LC50, (96h), Oncorhynchus mykiss: 191 mg/L
 EC50, (7d), Pseudokirchneriella subcapitata: 210 mg/L
 Methanol [67-56-1]
 EC50, (48h), Daphnia magna: > 10,000 mg/L
 LC50, (96h), Lepomis machrochirus: 15,400 mg/L

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** : 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				
49 CFR/DOT	None	Not regulated	Not Regulated	None	
49 CFR/DOT Additional Information	None				

SECTION 15 – REGULATORY INFORMATION

Canadian Information:

Canadian WHMIS Classification: 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 Controlled Products Regulations (CPR). 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.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL) or 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. 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: This product does not contain any chemical known to the State of California to cause cancer and/or reproductive harm.

Other State Right to Know Laws: Methanol [CAS# 67-56-1] (CA, MA, MN, NJ, NY, PA, RI);.

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

References

- : 1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2013.
2. International Agency for Research on Cancer Monographs, searched 2013.
3. Canadian Centre for Occupational Health and Safety, CCHInfoWeb databases, 2012 (Chempendium and RTECs).
4. Material Safety Data Sheet from manufacturer.
5. US EPA Title III List of Lists - October 2012 version.
6. California Proposition 65 List - July 05, 2013 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.

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