


SECTION 1 - PRODUCT IDENTIFICATION		
<b>Manufacturer/Supplier identifier:</b>    Ardex Engineered Cements 400 Ardex Park Drive Aliquippa, PA 15001 U.S.A. Tel: (724) 203-5000		<b>MATERIAL SAFETY DATA SHEET</b>  Use in case of emergency only: <b>CHEM-TEL – 1-800-255-3924</b> OR 1-813-248-0585 (call collect)  Visit our Website: <a href="http://www.ardex.com">http://www.ardex.com</a>
<b>Product identifier/Trade name:</b> ARDEX 8+9 (PART 8 - LIQUID)		<b>HMIS Hazard Index:</b> HEALTH = 1    FLAMMABILITY = 1    REACTIVITY = 0 4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal * = Chronic  <b>WHMIS Classification:</b> Not controlled.
<b>CHEMICAL NAME</b> Not Applicable	<b>CHEMICAL FAMILY</b> Not Applicable	<b>CHEMICAL FORMULA</b> Not Applicable
<b>TRADE NAME AND SYNONYMS</b> Ardex 8	<b>MOLECULAR WEIGHT</b> Not Applicable	<b>MATERIAL USE</b> Waterproofing Compound

SECTION 2 - CHEMICAL COMPOSITION / HAZARDOUS INGREDIENTS						
Hazardous Ingredients	C.A.S. Numbers	% (weight)	OSHA PEL		ACGIH TLV	
			TWA	STEL	TWA	STEL
Vinyl acetate copolymer	24937-78-8	60 - 100	*15 mg/m <sup>3</sup> (total dust); *5 mg/m <sup>3</sup> (respirable)	N/Av	*3 mg/m <sup>3</sup> (respirable); *10 mg/m <sup>3</sup> (inhalable)	N/Av
*Note: The OSHA PEL's and ACGIH TLV's listed above for Vinyl acetate copolymers are for 'Particulates Not Otherwise Specified / Regulated'.						
This material is not classified as hazardous under OSHA regulations (29CFR 1910.1200).						

SECTION 3 - HAZARDS IDENTIFICATION	
<b>Emergency Overview</b> Light pink-coloured liquid. Aromatic odour. Caution. May cause mild eye, skin and respiratory irritation. Fumes from heated product may cause tearing and eye irritation.	
<b>POTENTIAL HEALTH EFFECTS:</b>	
<b>Primary entry route(s):</b> Skin, eyes, ingestion and inhalation.	
<b>Target organs:</b> N/Av	
<b>Effects of short-term (acute) exposure:</b> <u>Inhalation:</u> May cause mild, temporary irritation of the nose, throat and respiratory tract. Symptoms may include coughing and shortness of breath. If heated above 204°C, fumes may cause tearing and eye irritation.  <u>Skin:</u> Direct contact may cause mild irritation.  <u>Eye:</u> Direct contact may cause mild irritation.  <u>Ingestion:</u> May cause may cause mild irritation to the mouth and digestive tract if ingested in large amounts.	
<b>Effects of long-term (chronic) exposure:</b> Prolonged or repeated skin contact may cause skin drying and irritation.	
<b>Conditions aggravated by exposure:</b> Any pre-existing respiratory tract, eye and skin conditions.	<b>Carcinogenic status:</b> See TOXICOLOGICAL INFORMATION, Section 11.
<b>Additional health hazards:</b> For further information, see TOXICOLOGICAL INFORMATION, Section 11.	<b>Potential environmental effects:</b> See ECOLOGICAL INFORMATION, Section 12.

**SECTION 4 - FIRST AID MEASURES**

**Inhalation:** In case of exposure, immediately remove source of contamination or have victim move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel. If not breathing, give artificial respiration. Seek medical attention if symptoms develop and persist.

**Skin contact:** Wash skin thoroughly with mild soap and running water, while removing contaminated clothing. Seek medical attention if irritation develops.

**Eye contact:** Immediately flush eyes thoroughly with running water for at least 15 to 20 minutes. Seek medical attention if irritation develops.

**Ingestion:** Never give anything by mouth if victim is unconscious. Do not induce vomiting. Have victim rinse mouth thoroughly with water. Have victim drink one to two glasses of water. Seek medical attention.

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

Product is not flammable under normal conditions. 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.

<b>Flash point (Method):</b> Not applicable	<b>Lower flammable limit (% by volume):</b> Not applicable	<b>Upper flammable limit (% by volume):</b> Not applicable
<b>Auto-ignition temperature:</b> N/Av	<b>Hazardous combustion products:</b> Carbon oxides, vinyl acetate, acetic acid, various hydrocarbons and other toxic vapors and gases that are common to thermal degradation of organic compounds.	
<b>Sensitivity to mechanical impact:</b> N/Av	<b>Sensitivity to static discharge:</b> N/Av	

**Suitable extinguishing media:**

Carbon dioxide, dry chemical powder, appropriate foam.

**Special fire-fighting procedures/equipment:**

Firefighters should wear proper chemically resistant, protective equipment and self-contained breathing apparatus, operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water only to cool fire exposed containers. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

**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 especially where exposure to vapor, dust or fume is possible. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

**Spill response/Cleanup:**

Ventilate area of spill or release. Eliminate all sources of ignition. Stop leak if you can do so without risk. Contain and absorb spilled material with inert, non-combustible absorbent material, such as sand and place in suitable container for later disposal (see section 13). Prevent material, from entering sewer lines or waterways. Spilled material may present a slipping hazard. Notify the appropriate authorities as required.

**Environmental precautions:**

Do not allow material to be discharged into the atmosphere or into sewers or ground water.

**Special spill response procedures:**

If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).

**DOT/CERCLA Reportable quantity (RQ):** None to report.

**SECTION 7 - HANDLING AND STORAGE****Safe handling procedures:**

Wear suitable protective equipment. Use only in well-ventilated area. 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. Do not breathe vapors or fumes. Avoid contact with eyes, skin and clothing. Keep away from extreme heat and flame. 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 away from incompatibles. No smoking in the area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect from damage.

<b>SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION</b>			
<b>Engineering controls:</b> Use with local exhaust ventilation to meet TLV requirements.			
<b>PERSONAL PROTECTIVE EQUIPMENT</b>			
<u>Respiratory Protection:</u> Respiratory protection is required if the airborne concentration exceeds the TLV. NIOSH / MSHA - approved respirators are recommended.			
<u>Skin protection and other protective equipment:</u> Impervious gloves appropriate to the material, are recommended. Advice should be sought from glove suppliers. Where extensive exposure to product is possible, use resistant clothing to prevent contact. An eyewash fountain and safety shower must be made available in the immediate working area.			
<u>Eye / face protection:</u> Protective chemical safety goggles are recommended.			
<b>Permissible exposure levels:</b> For individual ingredient exposure levels, see Section 2.			
<b>General Hygiene Considerations:</b> Do not breathe vapours. Avoid contact with eyes, skin and clothing. Never eat, drink, or smoke in work areas. Clean all equipment and clothing, and shower with mild soap and water at end of each work shift.			
<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>			
<b>Physical state:</b> Liquid		<b>Odor and appearance:</b> Light pink-coloured liquid. Aromatic odour.	
<b>Odor threshold:</b> N/Av	<b>Specific gravity (water = 1):</b> 1.2	<b>Vapor pressure:</b> N/Av	<b>Vapor density:</b> N/Av
<b>Evaporation rate:</b> N/Av (n-Butyl acetate = 1)	<b>Boiling point:</b> N/Av	<b>Melting/freezing point:</b> N/Av	<b>Solubility in water:</b> < 50 g/1000 cm <sup>3</sup>
<b>% volatile by volume:</b> N/Av	<b>pH:</b> N/Av	<b>Coefficient of oil/water distribution:</b> N/Av	<b>Particle size:</b> N/Av
<b>% volatile by weight:</b> N/Av	<b>Weight/Gallon:</b> N/Av	<b>Volatile Organic Content (VOC):</b> N/Av	
<b>SECTION 10 – REACTIVITY AND STABILITY DATA</b>			
<b>Stability and reactivity:</b> Stable under the recommended storage and handling conditions prescribed.			
<b>Polymerization:</b> Hazardous polymerization will not occur.			
<b>Conditions to avoid:</b> Extreme heat and flame.			
<b>Materials to avoid (incompatibles):</b> Strong acids, oxidizing agents, organic solvents			
<b>Hazardous decomposition products:</b> None known. Refer to 'Hazardous combustion products', Section 5.			
<b>SECTION 11 - TOXICOLOGICAL INFORMATION</b>			
<b>Toxicological data:</b> There is no available data for the product itself. See below for individual ingredient acute toxicity data.			
<u>Ingredients:</u>  Vinyl acetate copolymer		<u>LD<sub>50</sub> (route, species):</u>  >1000 mg/kg (oral, rat)	<u>LC<sub>50</sub> (species):</u>  N/Av
<b>Carcinogenicity:</b> Vinyl acetate copolymer is not classified as carcinogenic by IARC, ACGIH, NTP or OSHA. Vinyl acetate copolymer may contain unknown low levels of Vinyl acetate. Vinyl acetate is classified as possibly carcinogenic to humans by IARC (Group 2B), and a confirmed animal carcinogen with unknown relevance to humans by ACGIH (Group A3).			
<b>Teratogenicity, mutagenicity, other reproductive effects:</b> None known.			
<b>Sensitization to material:</b> Not expected to cause skin or respiratory sensitization reactions.		<b>Synergistic materials:</b> N/Av	
<b>Irritancy of material:</b> Mild irritant.			
<b>For more details, refer to Section 3.</b>			

**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. Do not discharge product unmonitored into the environment.

**Important environmental characteristics:** N/Av

**Aquatic toxicity:** N/Av

**SECTION 13 - WASTE DISPOSAL****Handling and storage conditions for disposal:**

Handle according to recommendations listed in Section 7.

**Methods of disposal:**

Dispose of in sealed containers in accordance with all applicable government regulations. Dispose in accordance with all applicable federal, provincial, state and local regulations. Contact your local, state or federal environmental agency for specific rules.

**RCRA:**

If this product, as supplied, becomes a waste, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. Waste classification should be determined by the end user of the product. For disposal of unused or waste material, check with local, state and federal environmental agencies.

**SECTION 14 - TRANSPORTATION INFORMATION****Transportation of Dangerous Goods Regulations (TDGR) Shipping Information:**

This product is not regulated for transportation by ground within Canada.

**US DOT 49 CFR Shipping information:**

This product is not regulated for transportation by ground within the continental United States.

**SECTION 15 - REGULATORY INFORMATION****In Canada:****WHMIS information:**

This product is NOT a WHMIS Controlled Product. It does not meet any of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR). Refer to Section 1 for a WHMIS Classification for this product.

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.**

**CEPA information:** Vinyl acetate copolymer is listed on the DSL.

**In U.S.A.:**

**TSCA information:** All ingredients are listed on the TSCA inventory.

**DOT/CERCLA Reportable Quantity (RQ):** None Reportable

**SARA TITLE III:**

*Sec. 313, Toxic Chemicals Notification, 40 CFR 372:* This material is not subject to the TSCA notification requirements, since it does not contain Toxic Chemical constituents above *de minimus* concentrations.

**California Proposition 65:**

To the best of our knowledge, this product is not known to contain chemicals known to the State of California to cause cancer or reproductive harm.

**New Jersey Hazardous Substance Lists:**

This product contains the following substances required to be disclosed on product labelling:

<u>Chemical Name</u>	<u>CAS #</u>	<u>New Jersey Hazardous Substance</u>
Vinyl acetate copolymer	24937-78-8	No

**SECTION 16 - OTHER INFORMATION****Prepared by:**

Ardex Engineered Cements

**Telephone number:**

(724) 203-5000

**Preparation date:**

January 26, 2007

**References:**

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2006.
2. International Agency for Research on Cancer Monographs, searched January 2007.
3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2007 (Chempendium and RTECs).
4. Material Safety Data Sheet from manufacturer.
5. US EPA Title III List of Lists – January 27, 2005 version.
6. California Proposition 65 List – December 8, 2006 version.


**SECTION 16 - OTHER INFORMATION Continued****Abbreviations:**

ACGIH = American Conference of Governmental Industrial Hygienists  
CAS = Chemical Abstract Service  
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
CFR = Code of Federal Regulations (U.S.A.)  
DOT = Department of Transport (U.S.A.)  
DSL = Domestic Substance List  
EPA = Environmental Protection Agency (U.S.A.)  
IARC = International Agency for Research on Cancer  
MSHA = Mine Safety & Health Administration  
N/Av = Not available.  
N/Ap = Not applicable  
NDSL = Non-Domestic Substances List  
NIOSH = National Institute for Occupational Safety and Health  
NTP = National Toxicology Program (U.S.A.)  
OSHA = Occupational Safety and Health Administration (U.S.A.)  
PEL = Permissible Exposure Limit  
RCRA = Resource Conservation and Recovery Act  
SARA = Superfund Amendments & Reauthorization Act  
STEL = Short-term Exposure Limit  
TLV = Threshold Limit Value  
TSCA = Toxic Substances Control Act  
TWA = Time Weighted Average  
WHMIS = Workplace Hazardous Materials Information System

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.

**End of Document**

SECTION 1 - PRODUCT IDENTIFICATION		
<b>Manufacturer/Supplier identifier:</b>    Ardex Engineered Cements 400 Ardex Park Drive Aliquippa, PA 15001 U.S.A. Tel: (724) 203-5000		<b>MATERIAL SAFETY DATA SHEET</b>  Use in case of emergency only: <b>CHEM-TEL – 1-800-255-3924</b> OR 1-813-248-0585 (call collect)  Visit our Website: <a href="http://www.ardex.com">http://www.ardex.com</a>
<b>Product identifier/Trade name:</b> ARDEX 8+9 (PART 9 - POWDER)		<b>HMIS Hazard Index:</b> HEALTH = *3 FLAMMABILITY = 1 REACTIVITY = 0 4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal * = Chronic  <b>WHMIS Classification:</b> D2A – Very Toxic material with other toxic effects; E – Corrosive Material.
<b>CHEMICAL NAME</b> Not Applicable	<b>CHEMICAL FAMILY</b> Not Applicable	<b>CHEMICAL FORMULA</b> Not Applicable
<b>TRADE NAME AND SYNONYMS</b> Ardex 9	<b>MOLECULAR WEIGHT</b> Not Applicable	<b>MATERIAL USE</b> Waterproofing Compound

SECTION 2 - CHEMICAL COMPOSITION / HAZARDOUS INGREDIENTS						
Hazardous Ingredients	C.A.S. Numbers	% (weight)	OSHA PEL		ACGIH TLV	
			TWA	STEL	TWA	STEL
Crystalline silica - Quartz	14808-60-7	30 – 60	0.1 mg/m <sup>3</sup> (final rule limit)	N/Av	0.025 mg/m <sup>3</sup> (respirable)	N/Av
Portland Cement	65997-15-1	30 - 60	15 mg/m <sup>3</sup> (total dust); 5 mg/m <sup>3</sup> (respirable)	N/Av	10 mg/m <sup>3</sup>	N/Av
Calcium carbonate	1317-65-3	30 – 60	15 mg/m <sup>3</sup> (total dust); 5 mg/m <sup>3</sup> (respirable)	N/Av	10 mg/m <sup>3</sup>	N/Av
Vinyl acetate copolymer	24937-78-8	10 – 30	*15 mg/m <sup>3</sup> (total dust); *5 mg/m <sup>3</sup> (respirable)	N/Av	*3 mg/m <sup>3</sup> (respirable); *10 mg/m <sup>3</sup> (inhalable)	N/Av
*Note: The OSHA PEL's and ACGIH TLV's listed above for Vinyl acetate copolymers are for 'Particulates Not Otherwise Specified / Regulated'.						
This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).						

SECTION 3 - HAZARDS IDENTIFICATION
<b>Emergency Overview</b> Fine, gray powder with no odor. Danger! CORROSIVE. Causes eye burns. May cause skin burns. Effects may be delayed. Causes respiratory tract irritation. Contains material which can cause lung damage. Cancer hazard. Contains material which can cause cancer.
<b>POTENTIAL HEALTH EFFECTS:</b>
<b>Primary entry route(s):</b> Skin, eyes, ingestion and inhalation.
<b>Target organs:</b> Lungs, skin, eyes.
<b>Effects of short-term (acute) exposure:</b> <b>Inhalation:</b> May cause severe irritation to the nose, throat and respiratory tract. Symptoms may include coughing, shortness of breath, wheezing and reduced lung function.  <b>Skin:</b> 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.  <b>Eye:</b> Direct contact may strongly irritate or burn the eyes. Could cause blindness.  <b>Ingestion:</b> May cause severe irritation to the mouth and digestive tract if ingested in large amounts.
<b>Effects of long-term (chronic) exposure:</b> 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.

SECTION 3 - HAZARDS IDENTIFICATION Continued	
<b>Conditions aggravated by exposure:</b> Any pre-existing respiratory tract, eye and skin conditions.	<b>Carcinogenic status:</b> See TOXICOLOGICAL INFORMATION, Section 11.
<b>Additional health hazards:</b> For further information, see TOXICOLOGICAL INFORMATION, Section 11.	<b>Potential environmental effects:</b> See ECOLOGICAL INFORMATION, Section 12.

SECTION 4 - FIRST AID MEASURES
<p><b>Inhalation:</b> In case of exposure, immediately remove source of contamination or have victim move to fresh air. If breathing is difficult, give oxygen by qualified medical personnel. If not breathing, give artificial respiration. Seek immediate medical attention.</p> <p><b>Skin contact:</b> Immediately wash skin thoroughly with mild soap and running water for at least 20 minutes, while removing contaminated clothing. Seek immediate medical attention.</p> <p><b>Eye contact:</b> Immediately flush eyes thoroughly with running water for at least 20 to 30 minutes. Seek immediate medical attention.</p> <p><b>Ingestion:</b> Never give anything by mouth if victim is unconscious. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink one to two glasses of water. Seek immediate medical attention.</p>

SECTION 5 – FIRE FIGHTING MEASURES		
<b>Fire hazards/conditions of flammability:</b> Product is not flammable under normal conditions. Closed containers may rupture if exposed to excess heat or flame, due to a build-up of internal pressure. Contact with water may cause hydration, and formation of caustic alkaline material.		
<b>Flammability classification (OSHA 29 CFR 1910.1200):</b> Non-flammable.		
<b>Flash point (Method):</b> Not applicable	<b>Lower flammable limit (% by volume):</b> Not applicable	<b>Upper flammable limit (% by volume):</b> Not applicable
<b>Auto-ignition temperature:</b> N/Av	<b>Hazardous combustion products:</b> Carbon oxides, calcium oxide, vinyl acetate, various hydrocarbons, aldehydes (e.g. acrolein and formaldehyde) and other toxic vapors and gases that are common to thermal degradation of organic compounds.	
<b>Sensitivity to mechanical impact:</b> N/Av	<b>Sensitivity to static discharge:</b> N/Av	
<b>Suitable extinguishing media:</b> Carbon dioxide, dry chemical powder, appropriate foam.		
<b>Special fire-fighting procedures/equipment:</b> Firefighters should wear proper chemically resistant, protective equipment and self-contained breathing apparatus, operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water only to cool fire exposed containers. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.		

SECTION 6 - ACCIDENTAL RELEASE MEASURES
<p><b>Personal precautions:</b> CORROSIVE. 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 especially where exposure to vapor, dust or fume is possible. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.</p>
<p><b>Spill response/Cleanup:</b> Ventilate area of spill or release. Eliminate all sources of ignition. Stop leak if you can do so without risk. Contain material, preventing it from entering sewer lines or waterways. Using HEPA vacuum, wet 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.</p>
<p><b>Environmental precautions:</b> Do not allow material to be discharged into the atmosphere or into sewers or ground water.</p>
<p><b>Special spill response procedures:</b> If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002). <b>DOT/CERCLA Reportable quantity (RQ):</b> None to report.</p>

**SECTION 7 - HANDLING AND STORAGE****Safe handling procedures:**

CORROSIVE. Wear suitable chemically resistant, protective equipment. Use only in well-ventilated area. 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. Do not breathe vapors, fumes or dust. Avoid contact with eyes, skin and clothing. Keep away from extreme heat and flame. Avoid wet or humid conditions. Keep away from acids and incompatibles. Avoid and control operations which create dusts. Keep containers tightly closed when not in use. Wash thoroughly after handling.

**Storage requirements:**

Store in a cool, dry, well-ventilated area away from incompatibles. No smoking in the area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect from damage.

**SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION****Engineering controls:**

Use with local exhaust ventilation to meet TLV requirements.

**PERSONAL PROTECTIVE EQUIPMENT**

**Respiratory Protection:** Respiratory protection is required if the airborne concentration exceeds the TLV. NIOSH / MSHA - approved respirators are recommended.

**Skin protection and other protective equipment:** Impervious gloves appropriate to the material, are required. Advice should be sought from glove suppliers. Where extensive exposure to product is possible, use resistant coveralls, apron and boots to prevent contact. An eyewash fountain and safety shower must be made available in the immediate working area.

**Eye / face protection:** Wear protective chemical safety goggles to prevent dusts from entering the eyes.

**Permissible exposure levels:**

For individual ingredient exposure levels, see Section 2.

**General Hygiene Considerations:**

Do not breathe dusts. Avoid contact with eyes, skin and clothing. Never eat, drink, or smoke in work areas. Clean all equipment and clothing, and shower with mild soap and water to remove dusts, at end of each work shift.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES****Physical state:**

Fine powder (solid).

**Odor and appearance:**

Fine, gray powder with no odor.

**Odor threshold:**

N/Av

**Specific gravity (water = 1):**

1.2

**Vapor pressure:**

N/Av

**Vapor density:**

N/Av

**Evaporation rate:**

N/Av (n-Butyl acetate = 1)

**Boiling point:**

N/Av

**Melting/freezing point:**

N/Av

**Solubility in water:**

< 50 g/1000 cm<sup>3</sup>

**% volatile by volume:**

N/Av

**pH:**

N/Av

**Coefficient of oil/water distribution:**

N/Av

**Particle size:**

N/Av

**% volatile by weight:**

N/Av

**Weight/Gallon:**

N/Av

**Volatile Organic Content (VOC):**

N/Av

**SECTION 10 – REACTIVITY AND STABILITY DATA****Stability and reactivity:**

Stable under the recommended storage and handling conditions prescribed. Contact with water may cause hydration and formation of caustic calcium hydroxide.

**Polymerization:**

Hazardous polymerization will not occur.

**Conditions to avoid:**

Extreme heat and flame, wet or humid conditions.

**Materials to avoid (incompatibles):**

Acids, oxidizing agents, ammonium salts, aluminum, organic solvents.

**Hazardous decomposition products:**

None known. Refer to 'Hazardous combustion products', Section 5.



**SECTION 11 - TOXICOLOGICAL INFORMATION****Toxicological data:**

There is no available data for the product itself. See below for individual ingredient acute toxicity data.

<u>Ingredients:</u>	<u>LD<sub>50</sub> (route, species):</u>	<u>LC<sub>50</sub> (species):</u>
Crystalline silica - Quartz	N/Av	N/Av
Portland cement	N/Av	N/Av
Calcium carbonate	6450 mg/kg (oral, rat)	N/Av
Vinyl acetate copolymer	>1000 mg/kg (oral, rat)	N/Av

**Carcinogenicity:**

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).

**Teratogenicity, mutagenicity, other reproductive effects:** None known.

**Sensitization to material:**

Portland Cement may cause an allergic skin reaction, in hypersensitive individuals possibly due to trace amounts of chromium. Not expected to cause respiratory sensitization reactions.

**Irritancy of material:**

Moderately irritating to corrosive.

**Synergistic materials:**

N/Av

**For more details, refer to Section 3.**

**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. Do not discharge product unmonitored into the environment.

**Important environmental characteristics:** N/Av

**Aquatic toxicity:** N/Av

**SECTION 13 - WASTE DISPOSAL****Handling and storage conditions for disposal:**

Handle according to recommendations listed in Section 7.

**Methods of disposal:**

Dispose of in sealed containers in accordance with all applicable government regulations. Dispose in accordance with all applicable federal, provincial, state and local regulations. Contact your local, state or federal environmental agency for specific rules.

**RCRA:**

If this product, as supplied, becomes a waste, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. Waste classification should be determined by the end user of the product. For disposal of unused or waste material, check with local, state and federal environmental agencies.

**SECTION 14 - TRANSPORTATION INFORMATION****Transportation of Dangerous Goods Regulations (TDGR) Shipping Information:**

This product is not regulated for transportation by ground within Canada.

**US DOT 49 CFR Shipping information:**

This product is not regulated for transportation by ground within the continental United States.

**SECTION 15 - REGULATORY INFORMATION****In Canada:****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 Controlled Products Regulations (CPR). Refer to Section 1 for a WHMIS Classification for this product.

**This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.**

**CEPA information:** Crystalline silica – Quartz, Portland cement and Vinyl acetate copolymer are listed on the DSL. Calcium carbonate is listed on the NDSL.

**SECTION 15 - REGULATORY INFORMATION Continued****In U.S.A.:**

**TSCA information:** All ingredients are listed on the TSCA inventory.

**DOT/CERCLA Reportable Quantity (RQ):** None Reportable

**SARA TITLE III:**

*Sec. 313, Toxic Chemicals Notification, 40 CFR 372:* This material is not subject to the TSCA notification requirements, since it does not contain Toxic Chemical constituents above *de minimus* concentrations.

**California Proposition 65:**

This product contains a chemical known to the State of California to cause cancer.

**New Jersey Hazardous Substance Lists:**

This product contains the following substances required to be disclosed on product labelling:

<u>Chemical Name</u>	<u>CAS #</u>	<u>New Jersey Hazardous Substance</u>
Crystalline silica – Quartz	14808-60-7	Yes
Calcium carbonate	1317-65-3	No
Portland cement	65997-15-1	No
Vinyl acetate copolymer	24937-78-8	No

**SECTION 16 - OTHER INFORMATION****Prepared by:**

Ardex Engineered Cements

**Telephone number:**

(724) 203-5000

**Preparation date:**

January 29, 2007

**References:**

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2006.
2. International Agency for Research on Cancer Monographs, searched January 2007.
3. Canadian Centre for Occupational Health and Safety, CCHInfoWeb databases, 2007 (Chempendium and RTECs).
4. Material Safety Data Sheet from manufacturer.
5. US EPA Title III List of Lists – January 27, 2005 version.
6. California Proposition 65 List – December 8, 2006 version.

**Abbreviations:**

ACGIH = American Conference of Governmental Industrial Hygienists  
 CAS = Chemical Abstract Service  
 CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act of 1980  
 CFR = Code of Federal Regulations (U.S.A.)  
 DOT = Department of Transport (U.S.A.)  
 DSL = Domestic Substance List  
 EPA = Environmental Protection Agency (U.S.A.)  
 IARC = International Agency for Research on Cancer  
 MSHA = Mine Safety & Health Administration  
 N/Av = Not available.  
 N/Ap = Not applicable  
 NDSL = Non-Domestic Substances List  
 NIOSH = National Institute for Occupational Safety and Health  
 NTP = National Toxicology Program (U.S.A.)  
 OSHA = Occupational Safety and Health Administration (U.S.A.)  
 PEL = Permissible Exposure Limit  
 RCRA = Resource Conservation and Recovery Act  
 SARA = Superfund Amendments & Reauthorization Act  
 STEL = Short-term Exposure Limit  
 TLV = Threshold Limit Value  
 TSCA = Toxic Substances Control Act  
 TWA = Time Weighted Average  
 WHMIS = Workplace Hazardous Materials Information System

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.