


| SECTION 1 - PRODUCT IDENTIFICATION | | |
|---|---|---|
| Manufacturer/Supplier identifier:  Ardex Engineered Cements 400 Ardex Park Drive Aliquippa, PA 15001 U.S.A. Tel: (724) 203-5000 | | <h2 style="text-align: center;">MATERIAL SAFETY DATA SHEET</h2> <p style="text-align: center;">Use in case of emergency only: CHEM-TEL – 1-800-255-3924 OR 1-813-248-0585 (call collect)</p> <p style="text-align: center;">Visit our Website: http://www.ardex.com</p> |
| Product identifier/Trade name: Ardex S-MC, Hardener (Part A) | | HMS Hazard Index: HEALTH = 3 FLAMMABILITY = 1 REACTIVITY = 0 4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal WHMIS Classification: E – Corrosive material D2B – Toxic material with other toxic effects |
| CHEMICAL NAME Not Applicable | CHEMICAL FAMILY Not Applicable | CHEMICAL FORMULA Not Applicable |
| TRADE NAME AND SYNONYMS Ardex S-MC | MOLECULAR WEIGHT Not Applicable | MATERIAL USE Hardener |

| SECTION 2 - CHEMICAL COMPOSITION / HAZARDOUS INGREDIENTS | | | | | | |
|---|----------------|------------|----------|------|-----------|------|
| Hazardous Ingredients | C.A.S. Numbers | % (weight) | OSHA PEL | | ACGIH TLV | |
| | | | TWA | STEL | TWA | STEL |
| 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | 2855-13-2 | 30-60 | N/Av | N/Av | N/Av | N/Av |
| 1,3-Phenylenebismethylamine | 1477-55-0 | 10-30 | N/Av | N/Av | N/Av | N/Av |
| Benzyl alcohol | 100-51-6 | 10-30 | N/Av | N/Av | N/Av | N/Av |
| 1,2-Cyclohexanediamine | 694-83-7 | 3-7 | N/Av | N/Av | N/Av | N/Av |
| Trimethylhexanemethylene diamine | 25620-58-0 | 1-5 | N/Av | N/Av | N/Av | N/Av |
| Nonyl phenol | 25154-52-3 | 1-5 | N/Av | N/Av | N/Av | N/Av |
| This material is classified as hazardous under OSHA regulations (29CFR 1910.1200). | | | | | | |

| SECTION 3 - HAZARDS IDENTIFICATION |
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| Emergency Overview CORROSIVE. Yellow to brown fluid with an amine-like odor. Causes moderate to severe burns to digestive tract, respiratory tract, skin and eyes. Mild central nervous system depressant. High mist concentrations may cause headache, nausea, dizziness, drowsiness, incoordination and confusion. Repeated or prolonged exposure to skin may cause skin sensitization. Aspiration hazard. Swallowing or vomiting of the liquid may result in aspiration into the lungs. |
| POTENTIAL HEALTH EFFECTS: |
| Primary entry route(s): Skin, eye, ingestion and inhalation. |
| Target organs: Lungs. |

| SECTION 3 - HAZARDS IDENTIFICATION continued | |
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| Effects of short-term (acute) exposure: | |
| <u>Inhalation:</u> Causes moderate to severe burns to respiratory tract. Mild central nervous system depressant. High mist concentrations may cause headache, nausea, dizziness, drowsiness, incoordination and confusion. | |
| <u>Skin:</u> Causes moderate to severe burns to skin. Symptoms such as redness and pain may occur. Severe exposures may result in serious skin burns. Product may be absorbed through the skin and cause toxic effects. | |
| <u>Eye:</u> Causes moderate to severe burns to eyes. Symptoms such as redness, pain, and blurred vision may occur. Severe exposure could result in eye burns that might cause permanent injury such as blindness. | |
| <u>Ingestion:</u> Causes moderate to severe burns to digestive tract. Symptoms such as pain, nausea, vomiting, diarrhea, weakness and collapse may occur. Aspiration hazard. Swallowing or vomiting of the liquid may result in aspiration into the lungs. | |
| Effects of long-term (chronic) exposure: | |
| Repeated or prolonged exposure to respiratory tract may cause lung damage. Repeated or prolonged exposure to skin may cause skin sensitization (dermatitis). | |
| Conditions aggravated by exposure: | Carcinogenic status: |
| Any existing respiratory tract and skin conditions. | See TOXICOLOGICAL INFORMATION, Section 11. |
| Additional health hazards: | Potential environmental effects: |
| For further information, see TOXICOLOGICAL INFORMATION, Section 11. | See ECOLOGICAL INFORMATION (Section 12). |

| SECTION 4 - FIRST AID MEASURES |
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| <u>Inhalation:</u> In case of exposure to excessive quantities of dusts/vapours, remove source of contamination or have victim move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately. |
| <u>Skin contact:</u> Flush skin thoroughly with lukewarm water for at least 20 minutes. Under running water, remove contaminated clothing. Get medical attention immediately. |
| <u>Eye contact:</u> Flush eyes thoroughly with lukewarm water for at least 20 minutes while holding the eyelid(s) open. Get medical attention immediately. |
| <u>Ingestion:</u> Never give anything by mouth if patient is unconscious. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink two glasses of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Repeat administration of water. Get medical attention immediately. |

| SECTION 5 – FIRE FIGHTING MEASURES | | |
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| Fire hazards/conditions of flammability: | | |
| Product is not flammable under normal conditions. | | |
| Flammability classification (OSHA 29 CFR 1910.1200): | | |
| Non-flammable. | | |
| Flash point (Method): | Lower flammable limit (% by volume): | Upper flammable limit (% by volume): |
| 101°C / 213.8°F (Setaflash Closed Tester) | Not applicable | Not applicable |
| Auto-ignition temperature: | Hazardous combustion products: | |
| N/Av | Carbon monoxide, carbon dioxide, and other toxic vapors and gases that are common to thermal degradation or organic compounds. | |
| Sensitivity to mechanical impact: | Sensitivity to static discharge: | |
| N/Av | N/Av | |
| Suitable extinguishing media: | | |
| Carbon dioxide, dry chemical powder, appropriate foam or water fog. | | |
| Special fire-fighting procedures/equipment: | | |
| Firefighters should wear proper chemically protective equipment and self-contained breathing apparatus. Move containers from fire area if it can be done without risk. Closed containers may explode with the pressure building from the heat. Use water 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>Personal precautions: CORROSIVE. Wear 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.</p> |
| <p>Spill response/Cleanup: Ventilate area of spill or release. Eliminate all sources of ignition. Contain material, preventing it from entering sewer lines or waterways. Use absorbents to assist the pick up of material. Scrape up product and place it into a container for disposal. Residual of product, while still wet, can be cleaned up with warm soapy water. Notify the appropriate authorities as required.</p> |
| <p>Environmental precautions: Do not allow material to be discharged into the atmosphere or into sewers or ground water.</p> |
| <p>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).</p> <p><u>DOT/CERCLA Reportable quantity (RQ):</u> None to report.</p> |

| SECTION 7 - HANDLING AND STORAGE |
|--|
| <p>Safe handling procedures: CORROSIVE. Wear suitable protective equipment. 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. Do not breathe vapors, fumes or dust. Avoid contact with eyes, skin and clothing. Keep away from flame, sparks and other ignition sources. Avoid and control operations which create vapors/dusts.</p> |
| <p>Storage requirements: Store in a cool (temperature below 32.2°C / 90°F), dry, well-ventilated area. No smoking in the area. Protect from damage.</p> |

| SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION |
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| <p>Engineering controls: Use with adequate ventilation. Normal ambient ventilation should be sufficient.</p> |
| <p>PERSONAL PROTECTIVE EQUIPMENT</p> <p><u>Respiratory Protection:</u> Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirator if the exposure limits are unknown.</p> <p><u>Skin protection and other protective equipment:</u> Impervious gloves appropriate to the material if skin contact with product is expected. Advice should be sought from glove suppliers. Where exposure to product is possible use protective clothing. An eyewash fountain and safety shower should be made available in the immediate working area.</p> <p><u>Eye / face protection:</u> Wear protective chemical safety goggles or in a splash environment in combination with a face shield.</p> |
| <p>Permissible exposure levels: For individual ingredient exposure levels, see Section 2.</p> |
| <p>General Hygiene Considerations: Avoid contact with eyes, skin and clothing. Avoid breathing vapors/dusts. Never eat, drink, or smoke in work areas. Clean all equipment and clothing at end of each work shift.</p> |

| SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES | | | |
|--|--|---|---|
| Physical state: Yellow to brown fluid (liquid) | | Odor and appearance: Yellow to brown fluid with an amine-like odor. | |
| Odor threshold: N/Av | Specific gravity (water = 1): N/Av | Vapor pressure: 0.1 hPa at 20°C / 68°F | Vapor density: Heavier than air |
| Evaporation rate: N/Av (n-Butyl acetate = 1) | Boiling point: 96.1°C / 205°F | Melting/freezing point: N/Av | Solubility in water: Emulsifiable |
| % 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 |
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| Stability and reactivity: Stable under the recommended storage and handling conditions prescribed. |
| Polymerization: Hazardous polymerization will not occur. |
| Conditions to avoid: Temperatures above 32.2°C / 90°F. |
| Materials to avoid: Strong oxidizing agents and acids. |
| Hazardous decomposition products: Carbon monoxide, carbon dioxide, and other toxic vapors and gases that are common to thermal degradation or organic compounds. |

| 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>LD₅₀ (route, species):</u> | <u>LC₅₀ (species):</u> |
| 3-Aminomethyl-3,5,5-trimethylcyclohexylamine | Not Available | Not Available |
| 1,3-Phenylenebismethylamine | 930 mg/kg (oral, rat) | 700 ppm 1 hour (rat) |
| Benzyl alcohol | 1230 mg/kg (oral, rat) | Not Available |
| 1,2-Cyclohexanediamine | 4556 mg/kg (oral, rat) | Not Available |
| Trimethylhexanemethylene diamine | Not Available | Not Available |
| Nonyl phenol | 580 mg/kg (oral, rat) | Not Available |
| Carcinogenicity: No ingredient classified as carcinogenic to humans by IARC, NTP, OSHA and ACGIH. | | |
| Teratogenicity, mutagenicity, other reproductive effects: None known. | | |
| Sensitization to material: Skin sensitization/allergies (dermatitis). | Synergistic materials: N/Av | |
| Irritancy of material: High degree of irritation to skin, eyes, respiratory and digestive tract. | | |
| For more details, refer to Section 3. | | |

| SECTION 12 - ECOLOGICAL INFORMATION |
|---|
| Environmental effects: N/Av |
| Important environmental characteristics: N/Av |
| Aquatic toxicity: N/Av |

| SECTION 13 - WASTE DISPOSAL |
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| 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. |

SECTION 13 - WASTE DISPOSAL continued**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 (TDG) Information:**

This product is regulated according Canadian Regulations.

| | |
|------------------------|--|
| Proper shipping name: | AMINES, LIQUID, CORROSIVE, N.O.S. (3-Aminomethyl-3,5,5-trimethylcyclohexylamine; 1,2-Cyclohexanediamine) |
| Class: | 8 |
| Identification number: | UN2735 |
| Packing group: | III |
| Special case: | Product may also be shipped as a LIMITED QUANTITY/CONSUMER COMMODITY according to TDG Section 1.17 if each inner container does not exceed the maximum quantity of Column 6 in Schedule 1. |

US DOT 49 CFR information:

This product is regulated according to US Regulations.

| | |
|------------------------|--|
| Proper shipping name: | AMINES, LIQUID, CORROSIVE, N.O.S. (3-Aminomethyl-3,5,5-trimethylcyclohexylamine; 1,2-Cyclohexanediamine) |
| Class: | 8 |
| Identification number: | UN2735 |
| Packing group: | III |
| Special case: | Product may also be shipped as an ORM-D/CONSUMER COMMODITY according to 49 CFR Part 172.101 Column 8A. |

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

This product is controlled by WHMIS. It does meet the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR).

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:

Ingredients are listed on the DSL/NDSL.

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 the minimum levels.

California Proposition 65:

This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.


New Jersey Hazardous Substance Lists:

This product contains the following listed hazardous substances above threshold percentages:

| <u>Chemical Name</u> | <u>CAS #</u> |
|----------------------------------|--------------|
| 1,3-Phenylenebismethylamine | 1477-55-0 |
| Trimethylhexanemethylene diamine | 25620-58-0 |

| SECTION 16 - OTHER INFORMATION | | |
|---|--|--|
| Prepared by: Ardex Engineered Cements | Telephone number: (724) 203-5000 | Preparation date: December 7, 2007 |
| References: <ol style="list-style-type: none"> 1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2004. 2. International Agency for Research on Cancer Monographs, 2004. 3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2004 (Chempendium and RTECs). 4. Material Safety Data Sheet from manufacturer. 5. US EPA Title III List of Lists – October 2001 version. 6. California Proposition 65 List – December 7, 2004 version. | | |
| Abbreviations: <p>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 (Transportation in U.S.A.) DOT = Department of Transport (U.S.A.) DSL = Domestic Substance List IARC = International Agency for Research on Cancer N/Av = Not available. N/Ap = Not applicable 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</p> | | |
| <p>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.</p> <p>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.</p> | | |

End of the MSDS

| SECTION 1 - PRODUCT IDENTIFICATION | | |
|---|---|---|
| Manufacturer/Supplier identifier:  Ardex Engineered Cements 400 Ardex Park Drive Aliquippa, PA 15001 U.S.A. Tel: (724) 203-5000 | | <h2 style="text-align: center;">MATERIAL SAFETY DATA SHEET</h2> <p style="text-align: center;">Use in case of emergency only: CHEM-TEL – 1-800-255-3924 OR 1-813-248-0585 (call collect)</p> <p style="text-align: center;">Visit our Website: http://www.ardex.com</p> |
| Product identifier/Trade name: Ardex S-MC, Resin (Part B) | | HMS Hazard Index: HEALTH = 1 FLAMMABILITY = 1 REACTIVITY = 0 4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal WHMIS Classification: D2B – Toxic material with other toxic effects |
| CHEMICAL NAME Not Applicable | CHEMICAL FAMILY Not Applicable | CHEMICAL FORMULA Not Applicable |
| TRADE NAME AND SYNONYMS Ardex S-MC | MOLECULAR WEIGHT Not Applicable | MATERIAL USE Resin |

| SECTION 2 - CHEMICAL COMPOSITION / HAZARDOUS INGREDIENTS | | | | | | |
|---|----------------|------------|----------|------|-----------|------|
| Hazardous Ingredients | C.A.S. Numbers | % (weight) | OSHA PEL | | ACGIH TLV | |
| | | | TWA | STEL | TWA | STEL |
| Bisphenol A, epichlorohydrin resin | 25068-38-6 | 60-100 | N/Av | N/Av | N/Av | N/Av |
| This material is classified as hazardous under OSHA regulations (29CFR 1910.1200). | | | | | | |

| SECTION 3 - HAZARDS IDENTIFICATION | |
|---|---|
| Emergency Overview IRRITANT. Colorless liquid with a characteristic odor. Causes moderate irritations to eyes. Repeated or prolonged exposure to skin may cause skin sensitization. May cause minor, temporary irritation to respiratory tract and skin. | |
| POTENTIAL HEALTH EFFECTS: | |
| Primary entry route(s): Skin, eye, ingestion and inhalation. | |
| Target organs: N/Av | |
| Effects of short-term (acute) exposure: <u>Inhalation:</u> May cause minor, temporary irritation to respiratory tract. <u>Skin:</u> May cause minor, temporary irritation to skin. <u>Eye:</u> Causes moderate irritations to eyes. Symptoms such as redness, pain, and blurred vision may occur. <u>Ingestion:</u> None expected. May cause nausea, and irritation to the mouth and digestive tract if ingested in large amounts. | |
| Effects of long-term (chronic) exposure: Repeated or prolonged exposure to skin may cause skin sensitization (dermatitis). | |
| Conditions aggravated by exposure: Any existing respiratory tract and skin conditions. | Carcinogenic status: See TOXICOLOGICAL INFORMATION, Section 11. |
| Additional health hazards: For further information, see TOXICOLOGICAL INFORMATION, Section 11. | Potential environmental effects: See ECOLOGICAL INFORMATION (Section 12). |

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| <p>SECTION 4 - FIRST AID MEASURES</p> <p><u>Inhalation:</u> In case of exposure to excessive quantities of dusts/vapours, remove source of contamination or have victim move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.</p> <p><u>Skin contact:</u> Flush skin thoroughly with lukewarm water for at least 20 minutes. Under running water, remove contaminated clothing. Get medical attention immediately.</p> <p><u>Eye contact:</u> Flush eyes thoroughly with lukewarm water for at least 20 minutes while holding the eyelid(s) open. Get medical attention immediately.</p> <p><u>Ingestion:</u> Never give anything by mouth if patient is unconscious. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink two glasses of water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Repeat administration of water. Get medical attention immediately.</p> |
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| | | |
|--|---|---|
| <p>SECTION 5 – FIRE FIGHTING MEASURES</p> | | |
| <p>Fire hazards/conditions of flammability: Product is not flammable under normal conditions.</p> | | |
| <p>Flammability classification (OSHA 29 CFR 1910.1200): Non-flammable.</p> | | |
| <p>Flash point (Method): N/Av</p> | <p>Lower flammable limit (% by volume): Not applicable</p> | <p>Upper flammable limit (% by volume): Not applicable</p> |
| <p>Auto-ignition temperature: N/Av</p> | <p>Hazardous combustion products: Carbon monoxide, carbon dioxide, and other toxic vapors and gases that are common to thermal degradation or organic compounds.</p> | |
| <p>Sensitivity to mechanical impact: N/Av</p> | <p>Sensitivity to static discharge: N/Av</p> | |
| <p>Suitable extinguishing media: Carbon dioxide, dry chemical powder, appropriate foam or water fog.</p> | | |
| <p>Special fire-fighting procedures/equipment: Firefighters should wear proper chemically protective equipment and self-contained breathing apparatus. Move containers from fire area if it can be done without risk. Closed containers may explode with the pressure building from the heat. Use water to cool fire exposed containers. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.</p> | | |

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| <p>SECTION 6 - ACCIDENTAL RELEASE MEASURES</p> |
| <p>Personal precautions: IRRITANT. Wear 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.</p> |
| <p>Spill response/Cleanup: Ventilate area of spill or release. Eliminate all sources of ignition. Contain material, preventing it from entering sewer lines or waterways. Use absorbents to assist the pick up of material. Scrape up product and place it into a container for disposal. Residual of product, while still wet, can be cleaned up with warm soapy water. Notify the appropriate authorities as required.</p> |
| <p>Environmental precautions: Do not allow material to be discharged into the atmosphere or into sewers or ground water.</p> |
| <p>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).</p> |
| <p><u>DOT/CERCLA Reportable quantity (RQ):</u> None to report.</p> |

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

IRRITANT. Wear suitable protective equipment. 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. Do not breathe vapors, fumes or dust. Avoid contact with eyes, skin and clothing. Keep away from flame, sparks and other ignition sources. Avoid and control operations which create vapors/dusts.

Storage requirements:

Store in a cool (temperature below 32.2°C / 90°F), dry, well-ventilated area. No smoking in the area. Protect from damage.

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

Use with adequate ventilation. Normal ambient ventilation should be sufficient.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Respiratory protection is required if the concentrations are higher than the exposure limits. Use a NIOSH approved respirator if the exposure limits are unknown.

Skin protection and other protective equipment: Impervious gloves appropriate to the material if skin contact with product is expected. Advice should be sought from glove suppliers. Where exposure to product is possible use protective clothing. An eyewash fountain and safety shower should be made available in the immediate working area.

Eye / face protection: Wear protective chemical safety goggles or in a splash environment in combination with a face shield.

Permissible exposure levels:

For individual ingredient exposure levels, see Section 2.

General Hygiene Considerations:

Avoid contact with eyes, skin and clothing. Avoid breathing vapors/dusts. Never eat, drink, or smoke in work areas. Clean all equipment and clothing at end of each work shift.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|--|--|---|---|
| Physical state: Colorless liquid. | | Odor and appearance: Colorless liquid with a characteristic odor. | |
| Odor threshold: N/Av | Specific gravity (water = 1): N/Av | 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: Not miscible or difficult to mix |
| % 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.

Polymerization:

Hazardous polymerization will not occur.

Conditions to avoid:

Temperatures above 32.2°C / 90°F.

Materials to avoid:

Strong oxidizing agents and acids.

Hazardous decomposition products:

Carbon monoxide, carbon dioxide, and other toxic vapors and gases that are common to thermal degradation or organic compounds.

| 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>LD₅₀ (route, species):</u> | <u>LC₅₀ (species):</u> |
| Bisphenol A, epichlorohydrin resin | 30000 mg/kg (oral, rat) | Not Available |
| Carcinogenicity: No ingredient classified as carcinogenic to humans by IARC, NTP, OSHA and ACGIH. | | |
| Teratogenicity, mutagenicity, other reproductive effects: None known. | | |
| Sensitization to material: Skin sensitization/allergies (dermatitis). | Synergistic materials: N/Av | |
| Irritancy of material: Moderate degree of irritation to eyes. | | |
| For more details, refer to Section 3. | | |

| SECTION 12 - ECOLOGICAL INFORMATION |
|---|
| Environmental effects: N/Av |
| 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 |
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| Transportation of Dangerous Goods (TDG) Information: This product is not regulated according Canadian Regulations. |
| US DOT 49 CFR information: This product is not regulated according to US Regulations. |

| SECTION 15 - REGULATORY INFORMATION |
|--|
| In Canada: WHMIS information: This product is controlled by WHMIS. It does meet the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR). 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: Ingredient is listed on the DSL/NDSL. |

SECTION 15 - REGULATORY INFORMATION continued**In U.S.A.:****TSCA information:**

Ingredient is 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 the minimum levels.

California Proposition 65:

This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

New Jersey Hazardous Substance Lists:

This product contains the following listed hazardous substances above threshold percentages:

| <u>Chemical Name</u> | <u>CAS #</u> |
|----------------------|--------------|
| None | None |

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

Ardex Engineered Cements

Telephone number:

(724) 203-5000

Preparation date:

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References:

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2004.
2. International Agency for Research on Cancer Monographs, 2004.
3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2004 (Chempendium and RTECs).
4. Material Safety Data Sheet from manufacturer.
5. US EPA Title III List of Lists – October 2001 version.
6. California Proposition 65 List – December 7, 2004 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 (Transportation in U.S.A.)
 DOT = Department of Transport (U.S.A.)
 DSL = Domestic Substance List
 IARC = International Agency for Research on Cancer
 N/Av = Not available.
 N/Ap = Not applicable
 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.

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End of the MSDS