

MATERIAL SAFETY DATA SHEET**Section 1 - Identification****Manufacturer's name and address:**

ARDEX Engineered Cements

400 Ardex Park Drive

Aliquippa, PA, US

15001

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Visit our Website: <http://www.ardexamericas.com>**Supplier's name and address:**

Refer to Manufacturer

24 Hr. Emergency Tel # : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)**Product Identifier** : **ARDEX EP 2000 Resin (Part A)****Chemical Name** : N/Ap**Chemical Family** : Mixture.**Chemical Formula** : N/Ap**Trade Name/Synonyms** : ARDEX EP 2000**Molecular Weight** : N/Ap**Material Use** : Resin.**SECTION 2 - HAZARDS IDENTIFICATION****Classification** : WHMIS classification:
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: : Colourless liquid. Characteristic odour.
Warning! Excessive heating above 50°C / 122°F may degrade the resin component. May cause allergic skin reaction. May cause mild eye irritation. May cause minor, temporary irritation to respiratory tract and skin.**POTENTIAL HEALTH EFFECTS:****Signs and symptoms of short-term (acute) exposure***Inhalation* : May cause minor respiratory irritation.*Skin* : Direct skin contact may cause slight or mild, transient irritation.*Eyes* : May cause mild eye irritation. Symptoms will include pain, redness and tearing.*Ingestion* : May cause irritation of mouth, throat, and stomach. May cause nausea, vomiting, and diarrhea.**Effects of long-term (chronic) exposure**

: Prolonged exposure may irritate the skin and cause dermatitis.

Carcinogenic status : See TOXICOLOGICAL INFORMATION, Section 11.**Additional health hazards** : Skin sensitizer. See TOXICOLOGICAL INFORMATION, Section 11.**Potential environmental effects**

: See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>Wt. %</u>
Bisphenol A / epichlorohydrin resin	25068-38-6	60.00 - 100.00

SECTION 4 - FIRST AID MEASURES

- Inhalation** : If inhaled, move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Obtain medical advice.
- Skin contact** : Remove contaminated clothing. Wash off with soap and plenty of water. Get medical attention.
- Eye contact** : For eye contact, flush with running water for at least 15 minutes. If irritation persists, seek prompt medical attention.
- Ingestion** : Never give anything by mouth to an unconscious person. 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. 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)

- : Combustible Liquid Class III B.

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; Aldehydes; Acids; other unidentified organic compounds.

NFPA Rating

- | | | | | |
|------------------|------------------------|-----------------------|-------------------------|------------|
| 0 - Minimal | 1 - Slight | 2 - Moderate | 3 - Serious | 4 - Severe |
| <hr/> | | | | |
| <i>Health:</i> 1 | <i>Flammability:</i> 1 | <i>Instability:</i> 0 | <i>Special Hazards:</i> | 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. 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. Recommended storage temperature: < 32.2°C (90°F).
- 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

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>
Bisphenol A / epichlorohydrin resin	N/Av	N/Av	N/Av	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.

Skin protection

- : Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.

Eye / face protection

- : Safety goggles or glasses as appropriate for the job.

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	: Liquid	Appearance	: Colourless liquid.
Odour	: characteristic	Odour threshold	: N/Av
pH	: N/Av		
Boiling point	: N/Av	Specific gravity	: N/Av
Melting/Freezing point	: N/Av	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)	: N/Av	Solubility in water	: Not miscible.
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: 0 g/L	Volatiles (% by weight)	: N/Av
Particle size	: N/Av	General Info.	: Weight / Gallon: N/Av
Flash point	: N/Av		
Flash point Method	: N/Av	Auto-ignition temperature	: N/Av
Lower flammable limit (% by vol.)	: N/Av	Upper flammable limit (% by vol.)	: N/Av
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. Excessive heating above 50°C / 122°F may degrade the resin component.
- Hazardous polymerization** : Hazardous polymerisation does not occur.
- Conditions to avoid** : Extreme heat. Temperatures above: 32.2°C (90°F).
- Materials To Avoid And Incompatibility**

: Oxidizing agents; Acids; Amines

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 : *Inhalation:* YES *Skin Absorption:* NO *Skin & Eyes:* YES *Ingestion:* 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>
Bisphenol A / epichlorohydrin resin	N/Av	11,400 mg/kg (rat)	> 23,500mg/kg (rabbit)

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects : None known.

Teratogenicity : None known.

Mutagenicity : None known.

Epidemiology : Not available.

Sensitization to material : May cause severe skin sensitization with allergic contact dermatitis symptoms such as swelling, rash and eczema. No data available to indicate product or components may be respiratory sensitizers.

Synergistic materials : N/Av

Irritancy : Slight to mild.

other important hazards : See Section 2 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.


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	UN 3082	Environmentally hazardous substances, liquid, n.o.s.	Class 9	III	

TDG Additional information	(Contains: Bisphenol A - Epichlorohydrin polymer).				
49CFR/DOT	UN 3082	Environmentally hazardous substances, liquid, n.o.s.	Class 9	III	
49CFR/DOT Additional information	(Contains: Bisphenol A - Epichlorohydrin polymer).				

SECTION 15 - REGULATORY INFORMATION

Canadian Information:

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

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 Canadian 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.

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

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
 COC: Cleveland Open Cup
 DOT: Department of Transportation
 DSL: Domestic Substances List
 EPA: Environmental Protection Agency
 IARC: International Agency for Research on Cancer
 LC: Lethal Concentration
 LD: Lethal Dose
 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
 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 for Chemical Substances and Physical Agents & Biological Exposure Indices for 2012.
2. International Agency for Research on Cancer Monographs, searched 2012.
3. Canadian Centre for Occupational Health and Safety, CCIInfoWeb databases, 2012 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
5. US EPA Title III List of Lists - July 2012 version.
6. California Proposition 65 List – February 08, 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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