

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

*** Section 1 - Chemical Product and Company Identification ***

Product Use: Epoxy Hardener

Manufacturer Information

ARDEX Engineered Cements
400 Ardex Park Drive
Aliquippa, PA 15001

Phone: 724-203-8499

Emergency # CHEM-TEL 800-255-3924
1-813-248-0585 (Call Collect)

*** Section 2 - Hazards Identification ***

Emergency Overview

DANGER! Combustible liquid and vapor. Toxic. Corrosive. Causes skin and eye burns. Harmful if inhaled, swallowed or absorbed through the skin. Contains components which may be easily absorbed through the skin. May cause severe irritation to the respiratory tract if vapors are inhaled. May cause allergic reactions.

Hazard Statements

Keep away from heat and flame. Do NOT get into eyes, on skin or on clothing. Do NOT breathe vapor. Do NOT swallow. Wash thoroughly after handling. Clean contaminated clothing before reuse. Keep container tightly closed. Use only with adequate ventilation.

Potential Health Effects: Eyes

Causes burns if in contact with the eyes. May cause permanent eye damage if not treated promptly.

Potential Health Effects: Skin

Causes burns if in contact with the skin. Harmful if absorbed through the skin in significant amounts. Contains components which are easily absorbed through the skin. Contact may cause an allergic skin reaction.

Potential Health Effects: Ingestion

Harmful if swallowed. May cause burns to the mouth, throat and digestive tract.

Potential Health Effects: Inhalation

Vapors are harmful if inhaled. May cause severe irritation to the respiratory system producing coughing and difficulty breathing. May cause drowsiness, dizziness, or loss of coordination if inhaled in large amounts.

HMIS Ratings: Health: 3* Fire: 2 Reactivity: 0 Pers. Prot.: safety glasses with side shields, protective clothing and gloves

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

WHMIS Classification: D2A, D2B, E

*** Section 3 - Composition / Information on Ingredients ***

CAS #	Component	Percent
100-51-6	Benzyl alcohol	30-60
90-72-2	2,4,6-Tri(dimethylaminomethyl)phenol	10-30
109-55-7	3-(Dimethylamino)-propylamine	10-30
2855-13-2	Isophorone diamine	10-30

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

1477-55-0	m-Xylene- α , α' -diamine	10-30
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Component Information/Information on Non-Hazardous Components

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication). This product is a controlled product under the criteria specified in the Canadian Workplace Hazardous Materials Information System (WHMIS).

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Immediately flush eyes with large amounts of water, including under the eyelids, for 15-30 minutes. Remove contact lenses if present and easy to do. Obtain immediate medical attention.

First Aid: Skin

In case of contact, immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing. Wash skin with mild soap if needed to completely remove material. Obtain immediate medical attention.

First Aid: Ingestion

Obtain immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

First Aid: Inhalation

If inhaled, immediately remove the affected person to fresh air. If not breathing, have qualified personnel give artificial respiration and seek medical attention immediately.

*** Section 5 - Fire Fighting Measures ***

General Fire Hazards

See Section 9 for Flammability Properties.

Material is a combustible liquid. Ignition temperatures decrease with increasing vapor volume and vapor/air contact time and are influenced by pressure changes. Therefore, ignition may occur below published ignition temperatures. Use of this product in processes involving elevated-temperatures must be thoroughly evaluated to assure safe operation. Exposing closed containers to heat may cause excessive pressure resulting in explosive rupture.

Hazardous Combustion Products

Under conditions of fire, material may decompose and emit oxides of nitrogen, carbon monoxide, carbon dioxide, and/or low molecular weight hydrocarbons.

Extinguishing Media

Dry chemical, alcohol resistant foam, water or carbon dioxide.

Fire Fighting Equipment/Instructions

Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

NFPA Ratings: Health: 3 Fire: 2 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

*** Section 6 - Accidental Release Measures ***

Personal Precautions

Do NOT get into eyes, on skin or on clothing. Do NOT breathe vapor. Do NOT swallow. Wash thoroughly after handling. Clean contaminated clothing before reuse. Keep container tightly closed. Use only with adequate ventilation.

Containment Procedures

Wear appropriate personal protective equipment to prevent contact with material during clean up procedure, including impervious gloves and safety glasses. Contain spill with inert material. Block any potential routes to water systems.

Environmental Precautions

Prevent discharge into sewers or waterways.

Clean-Up Procedures

Ventilate the area. If spill is large, be prepared to isolate the hazard area. Deny access to persons who are not involved in the cleanup and/or who have not been properly trained in spill management of hazardous liquids. Absorb spill with inert material. Carefully place material into appropriate container for disposal. Rinse area with clean, cold water and then dry. Material is highly alkaline and should not be discharged into sewers or waterways.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Material is corrosive; avoid contact during clean up. Spilled material may be slippery.

*** Section 7 - Handling and Storage ***

Handling Procedures

Observe good hygiene standards when handling this material. Do NOT get into eyes, on skin or on clothing. Do NOT breathe vapor. Do NOT swallow. Wash thoroughly after handling. Wash contaminated clothing before reuse. Keep container tightly closed. Use only with adequate ventilation. The use of barrier cream is recommended for additional skin protection.

Storage Procedures

Store in a cool, dry, well-ventilated area. Do not store in open, unlabeled or mislabeled containers. Keep container tightly closed when not in use. Store in original container.

*** Section 8 - Exposure Controls / Personal Protection ***

A: Component Exposure Limits

Consult local authorities for acceptable exposure limits.

3-(Dimethylamino)-propylamine (109-55-7)

Ontario: 0.5 ppm TWAEV; 2 mg/m³ TWAEV

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

m-Xylene- α , α' -diamine (1477-55-0)

ACGIH:	0.1 mg/m ³ Ceiling Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA:	0.1 mg/m ³ Ceiling Prevent or reduce skin absorption
NIOSH:	0.1 mg/m ³ Ceiling Potential for dermal absorption
Alberta:	0.1 mg/m ³ Ceiling
British Columbia:	0.1 mg/m ³ Ceiling
Manitoba:	0.1 mg/m ³ Ceiling
New Brunswick:	0.1 mg/m ³ Ceiling
NW Territories:	0.1 mg/m ³ Ceiling
Nova Scotia:	0.1 mg/m ³ Ceiling
Nunavut:	0.1 mg/m ³ Ceiling
Ontario:	0.1 mg/m ³ CEV
Quebec:	0.1 mg/m ³ Ceiling
Saskatchewan:	0.1 mg/m ³ Ceiling
Yukon:	0.1 mg/m ³ Ceiling

Engineering Controls

Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Chemical splash goggles or safety glasses with side shields are recommended. Consider use of full face shield.

Personal Protective Equipment: Skin

Wear impervious gloves. Materials such as nitrile rubber or Viton (fluorocarbon rubber) are recommended.

Personal Protective Equipment: Respiratory

Under normal conditions of use, respiratory protection should not be necessary. If work process generates excessive quantities of vapor or dust, or exposures in excess of any PEL, wear an appropriate respirator which is equipped to handle corrosive organic vapor.

Personal Protective Equipment: General

Eye wash fountains and emergency showers are required in the workplace when handling corrosive substances. Use good industrial hygiene practices when handling this material.

*** Section 9 - Physical & Chemical Properties ***

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

Appearance:	Solution	Color:	Yellowish
Odor:	Amine	Physical State:	Liquid
pH:	Basic	Vapor Pressure:	Not available
Vapor Density:	Not available	Boiling Point:	275° F (135° C) (approximately)
Melting Point:	Not available	Solubility in Water:	Not soluble
Specific Gravity:	1.02	Flash Point:	187° F (86° C) (approximately)
Flash Point Method:	DIN 53213	Lower Flammability Limit:	1.3 %
Auto Ignition:	716° F (380° C)	Upper Flammability Limit:	13.0 %
Freezing Point:	Not available	Decomposition Temperature:	Not available
Evaporation Rate:	Not available	Viscosity:	600-1400 mPa.s
Percent Volatile:	95 %	VOC:	0 g/L
Octanol/H2O Coeff.:	Not available	Molecular Weight:	Mixture

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability

Stable under normal conditions.

Conditions to Avoid

Avoid prolonged exposure to heat.

Incompatibility

Avoid contact with acids and strong oxidizing agents.

Hazardous Decomposition

Under conditions of fire, material may decompose and emit oxides of nitrogen, carbon monoxide, carbon dioxide, and/or low molecular weight hydrocarbons.

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

*** Section 11 - Toxicological Information ***

Acute Dose Effects

A: General Product Information

Harmful if inhaled, swallowed or absorbed through the skin. Contains components which may be absorbed through the skin in harmful amounts.

B: Component Analysis - LD50/LC50

Benzyl alcohol (100-51-6)

Inhalation LC50 Rat 8.8 mg/L 4 h; Oral LD50 Rat 1230 mg/kg; Dermal LD50 Rabbit 2000 mg/kg

3-(Dimethylamino)-propylamine (109-55-7)

Inhalation LC50 Rat >4.31 mg/L 4 h; Oral LD50 Rat 922 mg/kg; Dermal LD50 Rabbit 600 µL/kg

m-Xylene- α , α' -diamine (1477-55-0)

Inhalation LC50 Rat 700 ppm 1 h; Oral LD50 Rat 930 mg/kg; Dermal LD50 Rabbit 2000 mg/kg

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

Isophorone diamine (2855-13-2)

Oral LD50 Rat 1030 mg/kg

2,4,6-Tri(dimethylaminomethyl)phenol (90-72-2)

Oral LD50 Rat 1000 mg/kg; Dermal LD50 Rat 1280 mg/kg

Repeated Dose Effects

Contains a component which causes kidney and liver damage after repeated or prolonged exposure. May cause allergic reactions. Contains components which may be absorbed through the skin in harmful amounts, especially after repeated or prolonged exposure.

Corrosivity

Causes skin and eye burns. May cause permanent eye damage.

Carcinogenicity

A: General Product Information

No information is available for the product.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Developmental Effects

Contains components which may damage fertility and cause harm to the unborn child.

Sensitization

Contains multiple components which are known to cause sensitization reactions.

Target Organ Effects

Contains a component which causes liver and kidney damage.

Other Toxicological Information

Contains a component which is an endocrine disruptor.

*** Section 12 - Ecological Information ***

Ecotoxicity

A: General Product Information

Product is toxic to the aquatic environment and is expected to have long lasting effects.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Benzyl alcohol (100-51-6)

Test & Species

96 Hr LC50 Pimephales promelas
96 Hr LC50 Lepomis macrochirus
3 Hr EC50 Anabaena variabilis
48 Hr EC50 water flea

Results & Conditions

460 mg/L [static]
10 mg/L [static]
35 mg/L
23 mg/L

3-(Dimethylamino)-propylamine (109-55-7)

Test & Species

96 Hr LC50 Leuciscus idus
72 Hr EC50 Desmodemus subspicatus
96 Hr EC50 Desmodemus subspicatus
48 Hr EC50 Daphnia magna

Results & Conditions

122 mg/L [static]
56.2 mg/L
57.5 mg/L
59.5 mg/L

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

Isophorone diamine (2855-13-2)

Test & Species

96 Hr LC50 Leuciscus idus
72 Hr EC50 Desmodesmus subspicatus
24 Hr EC50 Daphnia magna
48 Hr EC50 Daphnia magna

Results & Conditions

110 mg/L [semi-static]
37 mg/L
42 mg/L
14.6 - 21.5 mg/L [semi-static]

Other Adverse Effects

Material is highly alkaline and should not be discharged into sewers or waterways.

*** Section 13 - Disposal Considerations ***

US EPA Waste Number & Descriptions

A: General Product Information

Material, if discarded, is expected to be a D002 Corrosive Waste. You must test your waste using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Waste must be handled in accordance with all local regulations. In case of large spills, follow all facility Emergency Response Procedures. Do not allow this material to into sewers/water supplies. Do not reuse containers. Dispose of container and any unused contents in accordance with local regulations. See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Corrosive liquids, n.o.s. (Contains: Isophorone diamine , m-Xylene- α , α' -diamine)

UN/NA #: UN1760 **Hazard Class:** 8 **Packing Group:** III

Required Label(s): CORROSIVE LIQUID

Additional Info.: Material is also a combustible liquid with a flashpoint of approximately 187°F (86°C).

TDG Information

Shipping Name: Corrosive liquid, n.o.s. (Contains: Isophorone diamine , m-Xylene- α , α' -diamine)

UN/NA #: UN1760 **Hazard Class:** 8 **Packing Group:** III

*** Section 15 - Regulatory Information ***

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

US Federal Regulations

A: General Product Information

No additional information is available.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

None.

C: Component Marine Pollutants

No information is available.

State Regulations

A: General Product Information

Other state regulations may apply.

B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Benzyl alcohol	100-51-6	No	Yes	Yes	No	Yes	No
3-(Dimethylamino)-propylamine	109-55-7	No	Yes	No	Yes	Yes	No
m-Xylene- α , α' -diamine	1477-55-0	Yes	Yes	Yes	Yes	Yes	Yes
Isophorone diamine	2855-13-2	No	No	No	Yes	No	No

Canadian WHMIS Information

A: General Product Information

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

B: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Benzyl alcohol	100-51-6	1 %
m-Xylene- α , α' -diamine	1477-55-0	1 %
Isophorone diamine	2855-13-2	1 %

WHMIS Classification: D2A, D2B, E

Additional Regulatory Information

A: General Product Information

No additional information is available.

Material Safety Data Sheet

Material Name: ARDEX MC PLUS SEALER Hardener (Part B)

MSDS ID: WWHC-007

B: Component Analysis – Inventory

Component	CAS #	TSCA	CAN	EEC
Benzyl alcohol	100-51-6	Yes	DSL	EINECS
3-(Dimethylamino)-propylamine	109-55-7	Yes	DSL	EINECS
m-Xylene- α , α' -diamine	1477-55-0	Yes	DSL	EINECS
Isophorone diamine	2855-13-2	Yes	DSL	EINECS
2,4,6-Tri(dimethylaminomethyl)phenol	90-72-2	Yes	DSL	EINECS

*** Section 16 - Other Information ***

Other Information

No additional information is available.

MSDS History

New MSDS

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CPR = Controlled Products Regulations; DOT = Department of Transportation; DSL = Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; EPA = Environmental Protection Agency; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; mg/Kg = milligrams per Kilogram; mg/L = milligrams per Liter; mg/m3 = milligrams per Cubic Meter; MSHA = Mine Safety and Health Administration; NA = Not Applicable or Not Available; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; SARA = Superfund Amendments and Reauthorization Act; TDG = Transport Dangerous Goods; TSCA = Toxic Substances Control Act; WHMIS = Workplace Hazardous Materials Information System.

End of Sheet WWHC-007