

MATERIAL SAFETY DATA SHEET

Industrial Use Only

MIPCO

Date Issued: 09/08/2009

MSDS No: #144 Artic Crete Part-A

1. PRODUCT AND COMPANY IDENTIFICATION

GENERAL USE: #144 Epoxy Resin Part-A of a two part epoxy resin mortar. Use with #144 Hardener Part-B and Blended aggregate Part-C.

PRODUCT DESCRIPTION: Acrylate/Epoxy Binder Resin

PRODUCT CODE: MIPCO #144 Artic Crete Part-A

MANUFACTURER

Midwest Industrial Products Corp.
7424 Bessemer Avenue
Cleveland OH 44127

Product Stewardship: 216-771-8555

Service Number: 800-521-2107

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation) :(800) 424 - 9300

CHEMTREC (Out Side USA) :(703) 527 - 3887

COMMENTS: EMERGENCY TELEPHONE NUMBER: In the event of an emergency involving spills, leaks, fire, exposure, or accident involving this product, contact CHEMTREC. Within the USA, Canada, or US Virgin Islands call CHEMTREC at 1-800-424-9300, 24 hours a day. Out side these areas call (703) 527-3887. Collect calls are accepted.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear straw color viscous liquid.

IMMEDIATE CONCERNS: USE WITH CAUTION! This product may cause eye, skin, and respiratory tract irritation. This product may cause allergic skin reaction.

POTENTIAL HEALTH EFFECTS

EYES: May cause mild eye irritation include stinging, tearing, and redness.

SKIN: Allergic reaction and significant irritation to the skin is possible.

INGESTION: Ingestion is not expected to be a significant route into the body.

INHALATION: Vapors may be irritating to the upper respiratory tract (including the nasal area) and eyes. Can cause severe eye, skin, and respiratory tract burns. May cause nose, throat, and lung irritation. Prolonged or repeated exposure to high concentrations may be harmful and cause adverse effects including labored breathing.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: Sensitization, irritation and dermatitis.

CHRONIC EFFECTS: Data for long-term chronic effects or carcinogenicity is not known or available on this product.

MEDICAL CONDITIONS AGGRAVATED: Allergy, eczema or skin conditions.

SENSITIZATION: Possible sensitizer by skin contact.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS	EINECS
Bisphenol a-epichlorohydrin polymer	90 - 100	25068-38-6	500-033-5
Acrylate	< 5	15625-89-5	- -

COMMENTS: Criteria for listing components in this MSDS are as follows: Carcinogens are listed at 0.1% or greater; hazardous components according to OSHA 29 CFR 1910.1200 are listed at 1.0% or greater; non-hazardous components are not listed. This is not intended to be the complete compositional disclosure. Refer to section 15 for other regulatory information.

4. FIRST AID MEASURES

EYES: Immediately flush with plenty of water for two minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Have eyes examined and tested by medical personnel.

SKIN: Remove contaminated clothing and immediately wash affected skin area with plenty of soap and water. Seek medical attention. Either discard or wash contaminated clothing and shoes before reuse.

INGESTION: Make sure victim is conscious and alert. If so, give 2-3 glasses of water to dilute. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Do not leave victim unattended as spontaneous vomiting may occur. Lay victim on side with head lower than waist to prevent aspiration of swallowed product. If victim is conscious and vomiting occurs, give water to further dilute the chemical.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Seek medical attention if cough or other symptoms develop.

ADDITIONAL INFORMATION: Seek medical advice and/or treatment. If breathing is irregular or stopped, administer artificial respiration and call 911.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: > 248.8°C (479.8°F) Pensky-Martens CC

FLAMMABLE CLASS: Not Applicable

GENERAL HAZARD: Evacuate personnel downwind of a fire to avoid inhalation of irritating and/or harmful fumes and smoke.

EXTINGUISHING MEDIA: Dry Chemical, Foam, or Carbon Dioxide. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop spill or leak and to disperse vapors.

FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus pressure-demand, (AS/NZS 1715 and AS/NZS 1716 approved or equivalent) and full protective gear. Toxic vapors may evolve. Fight fires from a safe distance or protected areas. Use of large volumes of water may produce run-off that could be toxic to wildlife and/or pose a hazardous waste disposal issue. Water may not be effective for large fires.

FIRE FIGHTING EQUIPMENT: Fire fighting personnel are required to use respiratory and eye protection. Full fire protective equipment (Bunker Gear) and self contained breathing apparatus (SCBA) is recommended to be used for all indoor fires and any significant outdoor fires. SCBA may not be required for small outdoor fires that may easily be extinguished with a portable fire extinguisher.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Nitrogen, Oxides of Carbon.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Dike area to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as diatomaceous earth, sawdust, vermiculite, or any appropriate readily available material and sweep or shovel adsorbed material into closed containers for disposal. After all visible traces, including ignitable vapors, have been removed thoroughly wash the contaminated area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

Wear the appropriate personal protective equipment designated in Section 8, remove the leaking container to a containment area and place into an appropriate container to prevent any further spill.

LARGE SPILL: Construct temporary dikes of dirt or sand to contain spill. Take precautions as necessary to prevent contamination of ground and surface waters. Recover spilled material on adsorbent, such as diatomaceous earth, sawdust, vermiculite, or any appropriate readily available material and sweep or shovel adsorbed material into closed containers for disposal. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

Wear the appropriate personal protective equipment designated in Section 8, close or cap leaking valves and/or block or plug hole in leaking container. Remove the leaking containers to a containment area and place into an appropriate container to prevent any further spill.

Contain material as described above and call the local fire, police, or appropriate emergency response provider for immediate emergency assistance.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of material into sources of water.

GENERAL PROCEDURES: Absorb spill with an emergency spill kit, diatomaceous earth, saw dust or equivalent inert material. Shovel up and dispose of at an appropriate waste disposal facility following applicable laws and regulations.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Store product in original containers. Store in a cool, dry, well ventilated area.

HANDLING: Use with sufficient ventilation to keep employee exposure below recommended limits. Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Avoid breathing in vapors, mists, and aerosols. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

STORAGE: Store and warehouse product in an appropriate area or facility. Segregate like materials together to avoid negative chemical reactions. Protect materials from excessive exposure to heat. Observe proper storage conditions and temperatures.

STORAGE TEMPERATURE: (50°F) Minimum to (75°F) Maximum

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Bisphenol a-epichlorohydrin polymer	TWA	[1]	[1]	[1]	[1]	[1]	[1]
	STEL	[1]	[1]	[1]	[1]	[1]	[1]
OSHA TABLE COMMENTS:							
1. Not Established							

ENGINEERING CONTROLS: Proper industrial hygiene practices are required for workers and should be achieved through engineering controls including ventilation with a high turn over rate whenever feasible. When such controls are not available or not feasible to achieve full protection, respirators for workers (and others in the area) and other personal protective equipment is mandated. Exhaust air may need to be scrubbed (cleaned) or filtered to reduce environmental contamination and odors.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety goggles or safety glasses with side shields when handling and mixing this material.

SKIN: Wear impervious compatible chemical resistant protective clothing such as neoprene or butyl rubber gloves, aprons, boots or Tyvek coveralls, as appropriate to prevent contact with skin.

RESPIRATORY: For respirator selection and training, seek professional advice. Whenever workplace conditions require a use of a respirator, follow a respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements. Wear an OSHA/NIOSH approved respirator selected on its suitability to provide adequate worker protection for the chemicals used and given working conditions including the level of airborne contamination and presence of sufficient oxygen.

WORK HYGIENIC PRACTICES: Always follow "Good personal hygiene practices" when working with this material.

COMMENTS: Always practice "good personal hygiene" during and after use of this materials, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. DO NOT eat, drink, or smoke in work areas that contain hazardous chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Light musty to no odor.

APPEARANCE: Clear straw colored liquid.

VAPOR PRESSURE: Heavier than air.

FLASHPOINT AND METHOD: > 248.8°C (479.8°F) Pensky-Martens CC

SPECIFIC GRAVITY: 9.510 lb./gal. at 25°C (74°F)

VISCOSITY #1: 4500 to 6500 cPs at 25°C (74°F) Brookfield

(VOC): < 0.010 g/l Calculated

Notes: VOC listed on the MSDS is for this component only. Mixed VOC for the combined product may have a different value. Consult the manufacturer or product data sheet for final mixed product VOC value.

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

STABILITY: This material (product) is stable under normal ambient conditions of temperature and pressure. Follow recommendations for proper storage and use.

CONDITIONS TO AVOID: Avoid contact with strong acids or caustics.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, aldehydes.

INCOMPATIBLE MATERIALS: Oxidizing agents.

11. TOXICOLOGICAL INFORMATION**ACUTE**

NOTES: LD50 data is not available for this product. Toxicity of this product may be attributed to a combination of the chemicals contained in this product.

SKIN EFFECTS: Possible sensitizer to the skin.

CARCINOGENICITY

IARC: Not Listed by IARC.

NTP: Not listed by NTP.

OSHA: Not listed by OSHA.

GENERAL COMMENTS: This product does not contain substances considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.

COMMENTS: The chemical, physical, and toxicological properties have not been thoroughly investigated or tested to the best of our knowledge.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No environmental data has been established or is available for this product.

GENERAL COMMENTS: Avoid contaminating waterways.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: See the manufacturers instructions to mix together with the proper components of multi-component materials, and allow to harden. Dispose solids at an appropriate waste disposal facility according to current applicable laws and regulations.

COMMENTS: Refer to Section 6. Accidental Release Measures for additional information.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME: Not Regulated

OTHER SHIPPING INFORMATION: Not a Dangerous Good according to the Australian Dangerous Goods (ADG) code. This material may be hazardous according to the criteria of NOHSC Australia.

AIR (ICAO/IATA)

SHIPPING NAME: Not Regulated

VESSEL (IMO/IMDG)

SHIPPING NAME: Not Regulated

CANADA TRANSPORT OF DANGEROUS GOODS

SHIPPING NAME: Not Regulated

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All ingredients in this mixture are listed with the TSCA Chemical Substance Inventory.

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



Toxic

DOMESTIC SUBSTANCE LIST (INVENTORY): The components in this product are listed or exempt from the Canadian Domestic Substance List (DSL).

INTERNATIONAL REGULATIONS: EINECS Inventory Status: The components in this product are listed on or exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substance (ELINCS).

Australian Inventory Status: The components in this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

PREPARED BY: TAG

REVISION SUMMARY: New MSDS

HMIS RATING

HEALTH:	3
FLAMMABILITY:	1
PHYSICAL HAZARD:	1
PERSONAL PROTECTION:	G

MANUFACTURER DISCLAIMER: This MSDS to the best of our knowledge conforms to the requirements of OSHA 29 CFR 1910.1200, 91/155/EEC and summarizes the health and safety hazard information and general guidance on how to safety handle the material at the date of issue. Each user must review the MSDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Responsibility for the product sold is subject to our standard terms and conditions, a copy if which is available upon request. This company warrants only that its products meet

the specifications stated in the sales contract. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications. While all the information presented in this document is believed to be reliable and to represent the best available data on these products, NO GUARANTY, WARRANTY, OR REPRESENTATION IS MADE, INTENDED, OR IMPLIED AS TO THE CORRECTNESS, OR SUFFICIENCY OF ANY INFORMATION, OR AS TO THE MERCHANTABILITY OR SUITABILITY OR FITNESS OF ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS FOR ANY PARTICULAR USE OR PURPOSE, OR THAT ANY CHEMICAL COMPOUNDS OR OTHER PRODUCTS OR THE USE THEREOF ARE NOT SUBJECT TO A CLAIM BY A THIRD PARTY FOR INFRINGEMENT OF ANY PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT. Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. Liability by this company for all claims, whether arising out of breach of warranty, negligence, strict liability, or otherwise, is limited to the purchase price of the material. Products may be toxic and require special precautions in handling. For all products listed, the user should obtain detailed information on toxicity, together with the proper shipping, handling and storage procedures, and comply with all applicable safety and environmental standards. Toxicity and risk characteristics of chemical compounds and other products may differ when used with other materials or in a manufacturing or other process. Those risk characteristics should be determined by the user and made known to handlers, processors, and end users.