

MATERIAL SAFETY DATA SHEET

Product: Aremco-Bond 805-A Activator
Revision Date: 1/03/2012

1. MATERIAL IDENTIFICATION

Product Name: Aremco-Bond 805-A Activator

Product Description: Polyamine Mixture, Clear Amber, Amine Odor
Product Use: High Performance Adhesive Hardener

Manufacturer: Aremco Products, Inc.
707-B Executive Blvd.
Valley Cottage, NY 10989

Telephone: 845-268-0039
Emergency Phone: 845-268-0039 or Infotrac (24/7) 800-535-5053

2. COMPOSITION

Ingredient	CAS #	ACGIH TLV (mg/m ³)	OSHA PEL (mg/m ³)
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	68953-36-6	N/E	N/E
Fatty acids, vegetable-oil, reaction products with tetraethylenepentamine	68991-84-4	N/E	N/E
Tetraethylenepentamine	112-57-2	5	5
Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	25068-38-6	N/E	N/E
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	N/E	N/E

3. HAZARDS IDENTIFICATION

Emergency Overview: Harmful in contact with eyes, skin and if swallowed.

Eye Contact: May cause eye irritation, swelling, and burns.

Skin Contact: May cause irritation, sensitization, and burns. Symptoms can be immediate or delayed several hours.

Inhalation Acute: Vapors may cause irritation and temporary or permanent sensitization.

Ingestion Acute: Not a likely route of entry. May cause irritation to mouth, esophagus, and stomach.

Physical: Spilled material is tacky, slippery, and difficult to remove from skin.

Other: Pre-existing skin sensitization may be aggravated by exposure to this product.

HMIS: Health: 3
Flammability: 1
Reactivity: 0
Personal Protection: H

4. FIRST AID MEASURES

Eye Exposure:
Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. If a physician is not immediately available, eye irrigation should be continued for an additional 15 minutes.

Skin Exposure:
Immediately wipe excess material off skin with a dry cloth then wash with plenty of soap and water for at least 5 minutes. See medical attention if irritation develops or persists. Remove contaminated clothing and shoes and clean thoroughly before re-use.

Inhalation:

Remove from immediate source of exposure and assure that victim is breathing. If not breathing, administer cardio-pulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Seek medical attention. Symptoms can be delayed several hours.

Ingestion:

If swallowed, do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of milk or water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention immediately. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give additional milk or water to further dilute the chemical.

Medical Conditions Possibly Aggravated by Exposure:

Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure to fumes or vapors of this product. Existing allergies may increase the chance of developing increase allergy symptoms.

5. FIRE FIGHTING MEASURES

Flash Point:	201 °F (94 °C) Closed Cup
Flammable Limits:	Not available.
Auto-Ignition Temperature:	Product is not self-igniting.
Extinguishing Media:	Use carbon dioxide, dry chemical, or appropriate foam.
Special Fire Fighting Procedures:	Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face-piece and full chemical resistant protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Extreme heat or water contamination may cause closed containers to explode.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection:	Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs.
Spill Cleanup:	Mop up liquid with absorbent such as sand, diatomite, acid binders, universal binders, or sawdust. Dispose in accordance with federal, state and local regulations or permits. Flush area with solvent then water to complete cleanup.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Keep container closed. Promptly clean residue from closures with cloth and solvent. Promptly clean up spills.
Storage:	Store at room temperature in a dry, well ventilated area, away from combustible material, and away from ignition sources. Keep containers closed. Store in clean plastic or steel containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:	Normal ventilation for good working conditions should be used. Keep containers closed. Safety shower and eyewash fountain should be within direct access.
Respiratory Protection:	This product is not considered respirable in either the liquid or cured forms. However, if the cured product is polished, ground or chipped during processing, handling or use, powders may be released as airborne respirable particles. In these instances, appropriate personal protection equipment and local ventilation controls must be employed. If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained NIOSH-approved vapor respirator is required.
Skin Protection:	Wear body-covering protective clothing and gloves.
Eye Protection:	Wear chemical goggles or face shield.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Physical and chemical here represent typical properties of this product. Contact Technical Sales for exact specifications.

Appearance:	Liquid
Color:	Clear Amber
Odor:	Amine Odor
pH:	N/D
Specific Gravity, g/cc	0.96
Water Solubility:	Slightly Soluble
Melting Point:	Not Determined

Boiling Point: 333 °C (631 °F)
Vapor Pressure (mm Hg): 0 @ 20 °C
Vapor Density (air=1): > 1
VOC Content, g/l: 0.00

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal conditions of use and storage.
Conditions to Avoid: None if used according to specifications.
Materials to Avoid: Lewis or mineral acids, organic bases such as primary and secondary aliphatic amines, ketones, aldehydes, and oxidizing agents. A reaction accompanied by large heat release occurs when the product is mixed with acids.
Hazardous Polymerization: May occur with epoxy resins in large masses.
Hazardous Decomposition Materials: Nitrogen oxides, ammonia, carbon monoxide and unidentified organic compounds (some containing nitrogen) may be formed during thermal or oxidative decomposition or combustion. Nitrogen oxide can react with water vapors to form corrosive nitric acid.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Data:

CAS# 68953-36-6 Fatty acids, tall oil, reaction products with tetraethylenepentamine
Oral LD50 > 2000 mg/kg (rat)
Dermal LD50 <= 2000 mg/kg (rabbit)

CAS# 68991-84-4 Fatty acids, vegetable oil, reaction products with tetraethylenepentamine
Oral LD50 > 2000 mg/kg (rat)
Dermal LD50 <= 2000 mg/kg (rabbit)

CAS# 112-57-2 Tetraethylenepentamine
Dermal LD50 660 mg/kg (rabbit)

Primary Irritant Effect:

On the Skin: Strong caustic effect on skin and mucous membranes.
On the Eye: Strong irritant with the danger of severe eye injury.
Sensitization: Sensitization is possible through inhalation.
Sensitization is possible through skin contact.

Other: Product may be toxic if ingested. Swallowing will lead to a strong caustic effect on the mouth and throat and to the danger of perforation of esophagus and stomach.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic life.
General Notes: Water hazard class 2 (self-assessment) – hazardous for water.

13. DISPOSAL CONSIDERATIONS

Disposal: Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the environment occurs or is likely to occur. Utilize an appropriate disposal facility, in compliance with federal, state and local environmental control regulations.

14. TRANSPORTATION INFORMATION

DOT UN Status: The material is not a regulated hazardous material for transportation.

15. REGULATORY INFORMATION

U.S. Federal Regulations

CERCLA: No CERCLA reportable quantity has been established for this material.

TSCA: All ingredients of this material are listed on the TSCA inventory.

SARA Title III

Sections 302, 304, 313: This product does not contain any substances reportable under these sections.

Sections 311, 312:

Hazard Classes	Yes/No
Fire Hazard	No
Reactivity Hazard	No
Pressure Hazard	No
Immediate Hazard	Yes
Delayed Hazard	Yes

International Inventory	Status
Canada (DSL)	Yes
Europe (EINECS/ELINCS)	Yes
Australia (AICS)	Yes
Japan (MITI)	Yes
South Korea (KECL)	Yes

16. OTHER INFORMATION

NFPA:	Health:	3
	Flammability:	1
	Reactivity:	0

Key Legend Information

ACGIH	American Conference of Governmental Industrial Hygienists
ARD	International Agency for Research on Cancer
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
DSL	Domestic Substance List
HMIS	Hazardous Materials Identification System
ND	Not Determined
NE	Not Established
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments & Reauthorization Act
SARA Title III	Emergency Planning & Community Right to Know Act
SARA Section 302	Extremely Hazardous Substances
SARA Section 304	Emergency Release
SARA Section 311	MSDS/List of Chemicals & Hazardous Inventory
SARA Section 312	Emergency & Hazardous Inventory
SARA Section 313	Toxic Chemicals & Release Reporting
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average

Disclaimer: The information contained herein is based on data taken from sources believed to be both current and reliable at the time of publication. Aremco Products, Inc. makes no warranty, expressed or implied, as to the accuracy of this MSDS and assumes no liability arising from its use by others. Compliance with all applicable Federal, State and Local laws and regulations remains the responsibility of the user.

MATERIAL SAFETY DATA SHEET

Product: Aremco-Bond 805-B Resin
Revision Date: 1/03/2012

1. MATERIAL IDENTIFICATION

Product Name: Aremco-Bond 805-B Resin

Product Description: Epoxy Resin Mixture, Grey, Aromatic Odor
Product Use: High Performance Adhesive Resin

Manufacturer: Aremco Products, Inc.
707-B Executive Blvd.
Valley Cottage, NY 10989

Telephone: 845-268-0039
Emergency Phone: 845-268-0039 or Infotrac (24/7) 800-535-5053

2. COMPOSITION

Ingredient	CAS #	ACGIH TLV (mg/m ³)	OSHA PEL (mg/m ³)
Aluminum Powder/Flake	7429-90-5	5	5
Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	25068-38-6	N/E	N/E
Calcium Carbonate	1317-65-3	10	15
Butyl 2,3-epoxypropyl ether	2426-08-6	16	270

Notes:

- 1) This product is a liquid mixture and all powders are encapsulated.
- 2) Exposure values shown for guidance only. Please follow applicable regulations.

3. HAZARDS IDENTIFICATION

Emergency Overview: Harmful to eyes, skin and respiratory system.

Eye Contact: May cause eye irritation.

Skin Contact: May cause skin irritation and sensitization.

Inhalation Acute: Vapors may cause irritation and temporary or permanent sensitization.

Ingestion Acute: Not a likely route of entry. May cause irritation to mouth, esophagus, and stomach.

Physical: Spilled material is tacky, slippery, and difficult to remove from skin.

HMS: Health: 1
Flammability: 1
Reactivity: 0
Personal Protection: H

4. FIRST AID MEASURES

Eye Exposure:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. If a physician is not immediately available, eye irrigation should be continued for an additional 15 minutes.

Skin Exposure:

Immediately wipe excess material off skin with a dry cloth then wash with plenty of soap and water for at least 5 minutes. See medical attention if irritation develops or persists. Remove contaminated clothing and shoes and clean thoroughly before re-use.

Inhalation:

Remove from immediate source of exposure and assure that victim is breathing. If not breathing, administer cardio-pulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Seek medical attention. Symptoms can be delayed several hours.

Ingestion:

If swallowed, do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of milk or water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention immediately. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist. Vomiting may occur spontaneously. If vomiting occurs and the victim is conscious, give additional milk or water to further dilute the chemical.

Medical Conditions Possibly Aggravated by Exposure:

Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure to fumes or vapors of this product. Existing allergies may increase the chance of developing increase allergy symptoms.

5. FIRE FIGHTING MEASURES

Flash Point:	Not applicable.
Flammable Limits:	Not applicable.
Auto-Ignition Temperature:	Product is not self-igniting.
Extinguishing Media:	Use carbon dioxide, dry chemical, or appropriate foam.
Special Fire Fighting Procedures:	Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face-piece and full chemical resistant protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Extreme heat or water contamination may cause closed containers to explode.

6. ACCIDENTAL RELEASE MEASURES

Personal Protection:	Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs.
Spill Cleanup:	Mop up liquid with absorbent such as sand, diatomite, acid binders, universal binders, or sawdust. Dispose in accordance with federal, state and local regulations or permits. Flush area with solvent then water to complete cleanup.

7. HANDLING AND STORAGE

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Keep container closed. Promptly clean residue from closures with cloth and solvent. Promptly clean up spills.
Storage:	Store at room temperature in a dry, well ventilated area, away from combustible material, and away from ignition sources. Keep containers closed. Store in clean plastic or steel containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:	Normal ventilation for good working conditions should be used. Keep containers closed. Safety shower and eyewash fountain should be within direct access.
Respiratory Protection:	This product is not considered respirable in either the liquid or cured forms. However, if the cured product is polished, ground or chipped during processing, handling or use, powders may be released as airborne respirable particles. In these instances, appropriate personal protection equipment and local ventilation controls must be employed. If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained NIOSH-approved vapor respirator is required.
Skin Protection:	Wear body-covering protective clothing and gloves.
Eye Protection:	Wear chemical goggles or face shield.

9. PHYSICAL AND CHEMICAL PROPERTIES
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Physical and chemical here represent typical properties of this product. Contact Technical Sales for exact specifications.

Appearance:	Liquid
Color:	Grey
Odor:	Aromatic
pH:	Not Determined
Specific Gravity, g/cc	Not Determined
Water Solubility:	Not Soluble
Melting Point:	Not Determined

Boiling Point: > 260 °C (> 500 °F)
Vapor Pressure (mm Hg): Not Determined
Vapor Density (air=1): Not Determined
VOC Content, g/l: 7.4
Solids Content: 93.0%

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal conditions of use and storage.
Conditions to Avoid: Avoid elevated temperatures.
Materials to Avoid: Strong acids, strong bases, strong oxidizers, amines, and mercaptans.
Hazardous Polymerization: May occur if mixed with amines in large masses and/or with heat.
Hazardous Decomposition Materials: Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Data: CAS# 2426-08-6 Butyl 2,3-epoxypropyl ether
Oral LD50 2050 mg/kg (rat)
Dermal LD50 2520 mg/kg (rabbit)

Primary Irritant Effect:
On the Skin: Irritant to skin and mucous membranes.
On the Eye: Irritating effect.
Sensitization: Sensitization is possible through skin contact.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Harmful to aquatic life.
General Notes: Water hazard class 2 (self-assessment) – hazardous for water.

13. DISPOSAL CONSIDERATIONS

Disposal: Keep out of surface waters, sewers, and waterways entering or leading to surface waters. Notify authorities if any exposure to the environment occurs or is likely to occur. Utilize an appropriate disposal facility, in compliance with federal, state and local environmental control regulations.

14. TRANSPORTATION INFORMATION

DOT UN Status: The material is not a regulated hazardous material for transportation.

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SARA Title III

Sections 302, 304, 313: This product does not contain any substances reportable under these sections.

Sections 311, 312:

<u>Hazard Classes</u>	<u>Yes/No</u>
Fire Hazard	No
Reactivity Hazard	No
Pressure Hazard	No
Immediate Hazard	Yes
Delayed Hazard	No

<u>International Inventory</u>	<u>Status</u>
Canada (DSL)	Yes
Europe (EINECS/ELINCS)	Yes
Australia (AICS)	Yes
Japan (MITI)	Yes
South Korea (KECL)	Yes

16. OTHER INFORMATION

NFPA:	Health:	1
	Flammability:	1
	Reactivity:	0

Key Legend Information

ACGIH	American Conference of Governmental Industrial Hygienists
ARD	International Agency for Research on Cancer
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response, Compensation & Liability Act
DSL	Domestic Substance List
HMIS	Hazardous Materials Identification System
ND	Not Determined
NE	Not Established
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments & Reauthorization Act
SARA Title III	Emergency Planning & Community Right to Know Act
SARA Section 302	Extremely Hazardous Substances
SARA Section 304	Emergency Release
SARA Section 311	MSDS/List of Chemicals & Hazardous Inventory
SARA Section 312	Emergency & Hazardous Inventory
SARA Section 313	Toxic Chemicals & Release Reporting
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TLV	Threshold Limit Value
TWA	Time Weighted Average

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