MATERIAL SAFETY DATA SHEET

Product: **Aremco-Bond 2200-A Activator**
Revision Date: 1/03/2012

1. MATERIAL IDENTIFICATION

Product Name: **Aremco-Bond 2200-A Activator**

Product Description: Amine Mixture, Orange Paste, Slight Odor
Product Use: High Performance Coating 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)
Cycloaliphatic Amine	1761-71-3	N/E	N/E
Benzyl Alcohol	100-51-6	N/E	N/E
Aluminum Hydroxide	21645-51-2	10	15
Glass Fibers	65997-17-3	N/E	N/E
Silica, Pyrogenic, Synthetic Amorphous	112945-52-5	3	6

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: Causes irritation to eyes, skin, and respiratory and digestive tracts.
***Eye Contact*:** May cause eye irritation and swelling.
***Skin Contact*:** May cause irritation and sensitization. Symptoms can be immediate or delayed several hours.
***Inhalation Acute*:** Vapors may cause irritation and temporary or permanent sensitization.
***Ingestion Acute*:** 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: 2
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:
Inhalation of product may aggravate existing chromic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

5. FIRE FIGHTING MEASURES

Flash Point:	> 200 ^{o}F (closed cup)
Flammable Limits:	Not available.
Auto-Ignition Temperature:	Not available.
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 and 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

Physical and chemical here represent typical properties of this product. Contact Technical Sales for exact specifications.

Appearance:	Paste
Color:	Orange
Odor:	Ammonia Odor
pH:	N/D
Specific Gravity, g/cc	1.5
Water Solubility:	Slightly Soluble
Boiling Point Range:	N/D
Vapor Pressure (mm Hg):	< 1 @ 25 ^{o}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: Reacts with epoxy and strong oxidizing agents.
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Materials: Carbon monoxide, carbon dioxide, oxides of nitrogen, and other organic substances.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity Data: Not available
Chronic Toxicity Data: Not available

12. ECOLOGICAL INFORMATION

Ecotoxity: Not tested
Environmental Fate: Not tested

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	No

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: 2
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	Permissable 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

MATERIAL SAFETY DATA SHEET

Product: **Aremco-Bond 2200-B Resin**
Revision Date: 1/03/2012

1. MATERIAL IDENTIFICATION

Product Name: **Aremco-Bond 2200-B Resin**

Product Description: Epoxy Resin Mixture, Orange Paste, Slight 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)
Epoxy Phenolic Novolac Resin	28064-14-4	N/E	N/E
Bisphenol-A Epoxy Resin	25068-38-6	N/E	N/E
Aluminum Hydroxide	21645-51-2	10	15
Glass Fibers	65997-17-3	N/E	N/E
Silica, Pyrogenic, Synthetic Amorphous	112945-52-5	3	6

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: Causes irritation to eyes, skin, and respiratory and digestive tracts.
***Eye Contact*:** May cause eye irritation and swelling.
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***Inhalation Acute*:** Vapors may cause irritation and temporary or permanent sensitization.
***Ingestion Acute*:** 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: 2
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:
Inhalation of product may aggravate existing chromic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

5. FIRE FIGHTING MEASURES

Flash Point:	> 300 ^{o}F (closed cup)
Flammable Limits:	Not available.
Auto-Ignition Temperature:	Not available.
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 and 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

Physical and chemical here represent typical properties of this product. Contact Technical Sales for exact specifications.

Appearance:	Paste
Color:	Orange
Odor:	Slight Epoxy Odor
pH:	N/D
Specific Gravity, g/cc	1.6
Water Solubility:	Insoluble
Boiling Point:	N/D
Vapor Pressure (mm Hg):	< 1 @ 25 ^{o}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: Reacts with amines and strong oxidizing agents.
Hazardous Polymerization: Will not occur.
Hazardous Decomposition Materials: Carbon monoxide, carbon dioxide, and other organic substances.

11. TOXICOLOGICAL INFORMATION

Epoxy Resins: Acute Oral LD_{50} (Rat): 11.4 g/kg
Acute Dermal LD_{50} (Rabbit): > 20 g/kg

12. ECOLOGICAL INFORMATION

Ecotoxity: Not tested
Environmental Fate: Not tested

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	No

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: 2
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	Permissable 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