SAFETY DATA SHEET

Product: 568-A Revision Date: 6/01/2015

1. MATERIAL IDENTIFICATION

Product Name: Aremco-Bond 568-A Activator

Product Description: Amine Mixture, Aluminum Colored, Amine Odor

Product Use: High Performance Thermally Conductive 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. HAZARDS IDENTIFICATION

GHS Classification:

Skin, Acute Category 4
Skin Corrosion Category 1A
Skin Sensitization Category 1
Eye Damage/Irritation Aquatic, Acute Category 1
Aquatic, Chronic Category 1

GHS Label Elements:



GHS Signal Word:

Warning

GHS Hazard Determining Component:

Polyamide Resin Stabilized Aluminum

GHS Hazard Statements for Health Hazards:

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H400 Very toxic to aguatic life.

H400 Very toxic to aquatic life.H410 Very toxic to aquatic life with long lasting effects.

GHS Precautionary Statements - Prevention:

P260 Do not breathe vapors.

P264 Wash hands thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves and eye/face protection.

GHS Precautionary Statements - Response:

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do not induce vomiting.

P310 Immediately call a poison center or doctor.

P303+P361+P353 IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with water.

P363 Wash contaminated clothing before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P391 Collect spillage.

GHS Storage/Disposal:

P405 Store locked up.

P501 Dispose in accordance with local, regional, national or international regulations.

3. COMPOSITION

Chemical Name	CAS No.	EC No.	Concentration	GHS Product Identifier
Polyamide Resin	68410-23-1	614-452-7	60.0-80.0%	H312 Skin Acute, Cat 4 H314 Skin Corrosion, Cat 1A H317 Skin Sensitization, Cat 1 H318 Eye Damage/Irritation, Cat 1 H400 Aquatic Acute, Cat 1 H410 Aquatic Chronic, Cat 1
Aluminum Powder, Stabilized	7429-90-5	231-072-3	20.0-40.0%	H228 Flammable Solids, Cat 1

Note

This product is a paste mixture and all powders are encapsulated.

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.

Inaestion

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: > 356 °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

Chemical Name	CAS No.	EC No.	TLV (mg/m³)	PEL (mg/m³)
Polyamide Resin	68410-23-1	614-452-7	N/E	N/E
Aluminum Powder, Stabilized	7429-90-5	231-072-3	5	5

Normal ventilation for good working conditions should be used. Keep containers closed. Safety shower and Engineering Controls:

evewash fountain should be within direct access.

This product is not considered respirable in either the liquid or cured forms. However, if the cured product is Respiratory Protection:

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.

Wear chemical goggles or face shield. Eye Protection:

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Paste Color: Aluminum Odor: Amine Odor Odor Threshold: Not Determined pH: Not Determined Melting Point Range: Not Determined Boiling Point Range: Not Determined Flash Point: > 356 °F (closed cup) Not Applicable Flammability (solid, gaseous): **Decomposition Temperature:** Not Determined

Auto Igniting: Not Determined

Danger of Explosion: Product does not present an explosion hazard

Explosion Limits

Lower: Not Determined Upper: Not Determined Vapor Pressure (mm Hg): < 1 @ 25 °C 0.98 g/cc @ 20 °C Density: Relative Density: Not Determined Vapor Density: Not Determined Evaporation Rate: Not Determined

Solubility in / Miscibility Water:

Partition Coefficient

(n-Octanol/Water): Not Determined Viscosity, Dynamic: Not Determined Viscosity, Kinematic: Not Determined Volatile Organic Compounds: 0.00 g/l

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal conditions of use and storage.

Not miscible or difficult to mix

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: Oral: LD50 <5000 mg/kg (rat)

Dermal: LD50 1470 mg/kg (rat)

Primary Irritant Effect

Strong caustic effect on skin and mucous membranes Skin:

Eye: Strong caustic effect; strong irritant with danger of severe eye injury

Sensitization: Sensitization possible through skin contact

Swallowing will lead to a strong caustic effect on mouth and throat and danger of Additional:

perforation of esophagus and stomach.

Carcinogenic Effects: The product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or

suspected human carcinogens.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:No further relevant information available.Persistence & Degradability:No further relevant information available.Bioaccumulative Potential:No further relevant information available.Mobility in Soil:No further relevant information available.

Ecotoxicity: Very toxic for fish.

General Notes: Water hazard class 3 (self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Dangerous to drinking water even if extremely small quantities leak into the ground.

Poisonous to fish and plankton. Very toxic to aquatic organisms.

Results of PBT & vPvB Assessment:

PBT:Not applicable.VPvB:Not applicable

Other Adverse Effects: No further information available.

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 Ratings (scale 0 – 4)	Health, 3 Flammability, 1 Reactivity, 0 Personal Protection, H	3 1 0 H
HMIS Ratings (scale 0 – 4)	Health, 3 Flammability, 1 Reactivity, 0 Personal Protection, H	H 3 F 0 MARKETOTE MARKETOT

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 EC European Commission

HMIS Hazardous Materials Identification System

IARC International Agency for Research on Cancer

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

RE Repeat Exposure

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

SE Single Exposure

STEL Short Term Exposure Limit
STOT Specific Target Organ Toxicity
TLV Threshold Limit Value
TWA Time Weighted Average

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SAFETY DATA SHEET

Product: 568-B Revision Date: 6/01/2015

1. MATERIAL IDENTIFICATION

Product Name: Aremco-Bond 568-B Base Resin

Product Description: Epoxy Resin Mixture, Aluminum Colored, And Slight Odor **Product Use:** Epoxy Resin Mixture, Aluminum Colored, And Slight Odor Product Use:

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. HAZARDS IDENTIFICATION

GHS Classification:

Aquatic Chronic Category 2
Skin Irritation Category 2
Eye Irritation Category 2A
Skin Sensitization Category 1

GHS Label Elements:



GHS Signal Word:

Warning

GHS Hazard Determining Component:

Epoxy Resin Stabilized Aluminum

GHS Hazard Statements for Health Hazards:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

GHS Precautionary Statements - Prevention:

P261 Avoid breathing vapors.

P264 Wash hands thoroughly after handling. P273 Avoid release to the environment.

P280 Wear protective gloves.

GHS Precautionary Statements - Response:

P302+P352 IF ON SKIN: Wash with plenty of soap and water. P332+P313 If skin irritation occurs, get medical attention.

P362 Take off contaminated clothing and wash before reuse.

P391 Collect spillage.

GHS Storage/Disposal:

P405 Store locked up.

P501 Dispose in accordance with local, regional, national or international regulations.

3. COMPOSITION

Chemical Name	CAS No.	EC No.	Concentration	GHS Product Identifier
Epoxy Resin	25068-38-6	500-033-5	60.0-80.0%	H315 Skin Irritation, Cat 2 H317 Skin Sensitization, Cat 1 H319 Eye Irritation, Cat 2A H411 Aquatic Chronic, Cat 2
Aluminum Powder, Stabilized	7429-90-5	231-072-3	20.0-40.0%	H228 Flammable Solids, Cat 1

Note

This product is a paste mixture and all powders are encapsulated.

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 °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

Chemical Name	CAS No.	EC No.	TLV (mg/m³)	PEL (mg/m³)
Aluminum Powder, Stabilized	7429-90-5	231-072-3	5	5
Epoxy Resin	25068-38-6	500-033-5	N/E	N/E

Engineering Controls: Normal ventilation for good working conditions should be used. Keep containers closed. Safety shower and

eyewash fountain should be within direct access.

This product is not considered respirable in either the liquid or cured forms. However, if the cured product is Respiratory Protection:

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.

Wear body-covering protective clothing and gloves. Skin Protection:

Eye Protection: Wear chemical goggles or face shield.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Paste Color: Aluminum Odor: Slight Ether Odor Odor Threshold: Not Determined Not Determined pH: Melting Point Range: Not Determined **Boiling Point Range:** Not Determined Flash Point: > 300 °F (closed cup) Flammability (solid, gaseous): Not Applicable

Decomposition Temperature: Not Determined

Auto Igniting: Product is not self-igniting

Danger of Explosion: Product does not present an explosion hazard

Explosion Limits

Lower: Not Determined Upper: Not Determined Vapor Pressure (mm Hg): < 1 @ 25 °C 1.14 g/cc @ 20 °C Density: Relative Density: Not Determined Vapor Density: Not Determined Evaporation Rate: Not Determined

Solubility in / Miscibility Water:

Partition Coefficient

Not miscible or difficult to mix

(n-Octanol/Water): Not Determined Viscosity, Dynamic: Not Determined Viscosity, Kinematic: Not Determined

Volatile Organic Compounds: 0.00 g/l

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal conditions of use and storage.

Conditions to Avoid: Storage temperatures above 100 °C

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, aldehydes, and other organic substances.

11. TOXICOLOGICAL INFORMATION

Primary Irritant Effect: Acute Toxicity:

Irritant to skin and mucous membranes

Eye: Irritating effect

Sensitization: Sensitization possible through skin contact

The product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or Carcinogenic Effects:

suspected human carcinogens.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:

Persistence & Degradability:

Bioaccumulative Potential:

Mobility in Soil:

No further relevant information available.

No further relevant information available.

No further relevant information available.

Ecotoxicity: Toxic for fish.

General Notes: Water hazard class 2 (self-assessment): Hazardous for water.

Do not allow product to reach ground water, water course or sewage system. Dangerous to drinking water even if small quantities leak into the ground.

Poisonous to fish and plankton. Toxic to aquatic organisms.

Results of PBT & vPvB Assessment:

PBT: Not applicable. VPvB: Not applicable

Other Adverse Effects: No further information available.

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
	0

International InventoryStatusCanada (DSL)YesEurope (EINECS/ELINCS)YesAustralia (AICS)YesJapan (MITI)YesSouth Korea (KECL)Yes

16. OTHER INFORMATION

NFPA Ratings (scale 0 – 4)	Health, 1 Flammability, 1 Reactivity, 0 Personal Protection, H	110 H
HMIS Ratings (scale 0 – 4)	Health, 1 Flammability, 1 Reactivity, 0 Personal Protection, H	H 1 F 1 R 0 Haterier H

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 EC European Commission

HMIS Hazardous Materials Identification System

IARC International Agency for Research on Cancer

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

RE Repeat Exposure

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

SE Single Exposure

STEL Short Term Exposure Limit
STOT Specific Target Organ Toxicity
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.