

SAFETY DATA SHEET

Product: 657-A
Revision Date: 6/01/2015

1. MATERIAL IDENTIFICATION

Product Name: Aremco-Bond 657-A Activator
Product Description: Amine Mixture, Stainless Steel Gray, 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. HAZARDS IDENTIFICATION

GHS Classification:

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

GHS Label Elements:



GHS Signal Word:

Warning

GHS Hazard Determining Component:

Polyamide Resin
Stainless Steel

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 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
Stainless Steel Flake	65997-19-5	266-048-1	20.0-40.0%	H317 Sensitization, Skin, Cat 1 H334 Sensitization, Respiratory, Cat 1 H351 Suspected of Causing Cancer, Cat 2 H372 STOT, RE, Causes Damage to Organs, Cat 1 H413 Aquatic Chronic, Cat 4

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 chronic 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/m ³)	PEL (mg/m ³)
Polyamide Resin	68410-23-1	614-452-7	Not Established	Not Established
Stainless Steel Flake	65997-19-5	266-048-1	0.5	1.0

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

Form: Paste

Color: Stainless Steel Gray

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)

Flammability (solid, gaseous): Not Applicable

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

Density: 1.6 g/cc @ 20 °C

Relative Density: Not Determined

Vapor Density: Not Determined

Evaporation Rate: Not Determined

Solubility in / Miscibility Water: Not miscible or difficult to mix

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.

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
	Skin: Strong caustic effect on skin and mucous membranes
	Eye: Strong caustic effect; strong irritant with danger of severe eye injury
	Sensitization: Sensitization possible through skin contact
	Additional: Swallowing will lead to a strong caustic effect on mouth and throat and danger of 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.
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14. TRANSPORTATION INFORMATION

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

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

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SAFETY DATA SHEET

Product: 657-B
Revision Date: 6/01/2015

1. MATERIAL IDENTIFICATION

Product Name: Aremco-Bond 657-B Base Resin

Product Description: Epoxy Resin Mixture, Stainless Steel Gray, And 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. 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
Stainless Steel

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
Stainless Steel Flake	65997-19-5	266-048-1	20.0-40.0%	H317 Sensitization, Skin, Cat 1 H334 Sensitization, Respiratory, Cat 1 H351 Suspected of Causing Cancer, Cat 2 H372 STOT, RE, Causes Damage to Organs, Cat 1 H413 Aquatic Chronic, Cat 4

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 chronic 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/m ³)	PEL (mg/m ³)
Epoxy Resin	25068-38-6	500-033-5	N/E	N/E
Stainless Steel Flake	65997-19-5	266-048-1	0.5	1.0

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

Form:	Paste
Color:	Stainless Steel Gray
Odor:	Slight Ether Odor
Odor Threshold:	Not Determined
pH:	Not Determined
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
Density:	1.6 g/cc @ 20 °C
Relative Density:	Not Determined
Vapor Density:	Not Determined
Evaporation Rate:	Not Determined
Solubility in / Miscibility Water:	Not miscible or difficult to mix
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.
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

Acute Toxicity:	Primary Irritant Effect: Skin: Irritant to skin and mucous membranes Eye: Irritating effect Sensitization: Sensitization possible through skin contact
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:	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.
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14. TRANSPORTATION INFORMATION

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

<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 Ratings (scale 0 – 4)	Health, 1 Flammability, 1 Reactivity, 0 Personal Protection, H	
HMIS Ratings (scale 0 – 4)	Health, 1 Flammability, 1 Reactivity, 0 Personal Protection, 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.