SAFETY DATA SHEET

 Product:
 556-HTHC-A

 Revision Date:
 6/01/2015

1. MATERIAL IDENTIFICATION

Product Name:	Aremco-Bond 556-HTHC-A Activator
Product Description:	Imidazol Mixture, Light Yellow, Amine Odor
Product Use:	High Performance Electrically 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:

Acute Toxicity, Oral	Category 4
Skin Sensitization	Category 1
Eye Damage	Category 1

GHS Label Elements:



GHS Signal Word: Danger

GHS Hazard Determining Component:

4-Ethyl-4-Methylimidazole Propylene Carbonate

GHS Hazard Statements for Health Hazards:

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

GHS Precautionary Statements - Prevention:

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

GHS Precautionary Statements – Response:

P301+P312	IF SWALLOWED: Call a poison center or doctor if you feel unwell.
P330	Rinse mouth
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs, get medical attention.
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 and continue rinsing.
P310	Immediately call a poison center or doctor.

GHS Storage/Disposal:

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

3. COMPOSITION

Chemical Name	CAS No.	EC No.	Concentration	GHS Product Identifier
2-Ethyl-4-Methylimidazole	931-36-2	213-234-5	25.0-50.0%	H302 Acute Toxicity, Oral, Cat 4 H317 Sensitization, Skin, Cat 1 H318 Eye Damage/Irritation, Cat 1
Propylene Carbonate	108-32-7	203-572-1	25.0-50.0%	H319 Eye Damage/Irritation, Cat 2A

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

Extinguishing Media: Special Fire Fighting Procedures:	Use carbon dioxide, dry chemical, or appropriate foam. 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:

Storage:

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. 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

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Chemical Name	CAS No.	EC No.	TLV (mg/m ³)	PEL (mg/m ³)
Engineering Controls:		for good working conditio should be within direct ac		ners closed. Safety shower and
Respiratory Protection:	polished, ground o respirable particles must be employed	r chipped during processi 5. In these instances, app	ng, handling or use, powders ma ropriate personal protection equi ceeded and local ventilation is u	However, if the cured product is ay be released as airborne ipment and local ventilation controls navailable, a supplied-air respirator
Skin Protection: Eye Protection:		ng protective clothing and ggles or face shield.	gloves.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Light Yellow
Odor:	Amine-l ike
Odor Threshold:	Not Determined
••••	Not Determined
pH: Malting Daint Danga	Not Determined
Melting Point Range:	
Boiling Point Range:	468 °F (242 °C)
Flash Point (Closed Cup):	394 °F (201 °C)
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:	1.9 Vol %
Upper:	Not Determined
Vapor Pressure (mm Hg):	< 1 @ 25 °C
Density:	1.0 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:	50.0%

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 Products:Carbon monoxide, carbon dioxide, oxides of nitrogen, and other organic substances.

11. TOXICOLOGICAL INFORMATION

Acute	Toxicit	y:
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CAS No. 108-32-7, Propylene Carbonate Oral LD50 >29000 mg/kg (rat) Primary Irritant Effect: Skin: No irritant effect Eye: Irritating effect Sensitization: No sensitizing effects known

Carcinogenic Categories:	IARC	None of the ingredients is listed
	NTP	None of the ingredients is listed
	OSHA	None of the ingredients is listed

12. ECOLOGICAL INFORMAT	ION
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.
General Notes:	Water hazard class 1 (self-assessment): Slightly hazardous for water.
	Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.
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:

Japan (MITI)

South Korea (KECL)

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

Yes

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	H III I H IIII I H III III I H III IIII I

Key Legend Information

ARDInternational Agency for Research on CancerCASChemical Abstract ServiceCERCLAComprehensive Environmental Response, Compensation & LiabilityDSLDomestic Substance ListECEuropean CommissionHMISHazardous Materials Identification SystemIARCInternational Agency for Research on CancerNDNot DeterminedNENot EstablishedNFPANational Fire Protection AssociationNIOSHNational Institute for Occupational Safety & HealthNTPNational Institute for Occupational Safety & HealthNTPNational Toxicology ProgramOSHAOccupational Safety and Health AdministrationPELPermissible Exposure LimitRESuperfund Amendments & Reauthorization ActSARASuperfund Amendments & Reauthorization ActSARA Section 302Extremely Hazardous SubstancesSARA Section 311MSDS/List of Chemicals & Hazardous InventorySARA Section 312Emergency ReleaseSARA Section 313Toxic Chemicals & Release ReportingSESingle ExposureSTELShort Term Exposure LimitSTOTSpecific Target Organ ToxicityTLVThreshold Limit Value	y Act
TLV Threshold Limit Value TWA Time Weighted Average	

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SAFETY DATA SHEET

 Product:
 556-HTHC-B

 Revision Date:
 6/01/2015

1. MATERIAL IDENTIFICATION

Product Name:	Aremco-Bond 556-HTHC-B Base Resin	
Product Description:	Epoxy Resin Mixture, Paste, Aromatic Odor	
Product Use:	High Performance Electrically Conductive 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:

Skin Irritation	Category 2
Skin Sensitization	Category 1
Aquatic Chronic	Category 3

GHS Label Elements:



GHS Signal Word:

Warning

GHS Hazard Determining Component:

Epoxy Phenol Novolac Resin 1,3-Bis(2,3-Epoxypropxy)-2,2-Dimethylpropane Silver

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

GHS Precautionary Statements - Prevention:

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.

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.

GHS Storage/Disposal:

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

3. COMPOSITION

Chemical Name	CAS No.	EC No.	Concentration	GHS Product Identifier
Epoxy Phenol Novolac Resin	28064-14-4	500-006-8	10.0-25.0%	H303 Acute Toxicity, Oral, Cat 5 H313 Acute Toxicity, Dermal, Cat 5 H315 Skin Corrosion/Irritation, Cat 2 H317 Sensitization, Skin, Cat 1 H411 Aquatic Chronic, Cat 2
1,3-Bis(2,3-Epoxypropxy)-2,2- Dimethylpropane	17557-23-2	241-536-7	2.5-10.0%	H315 Skin Corrosion/Irritation, Cat 2 H317 Sensitization, Skin, Cat 1
Silver	7440-22-4	231-131-3	50.0-80.0%	None

Notes:

This product is a liquid 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

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
Spill Cleanup:	NIOSH approved respirator where mist occurs. 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

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Chemical Name	CAS No.	EC No.	TLV (mg/m ³)	PEL (mg/m ³)
Engineering Controls:		for good working conditio should be within direct ac		ners closed. Safety shower and
Respiratory Protection:	polished, ground o respirable particles must be employed	r chipped during processi 5. In these instances, app	ng, handling or use, powders ma ropriate personal protection equi ceeded and local ventilation is u	However, if the cured product is ay be released as airborne ipment and local ventilation controls navailable, a supplied-air respirator
Skin Protection: Eye Protection:		ng protective clothing and ggles or face shield.	gloves.	

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Paste
Color:	Silver
Odor:	Aromatic
Odor Threshold:	Not Determined
pH:	Not Determined
Melting Point Range:	Not Determined
Boiling Point Range:	Not Determined
Flash Point (Closed Cup):	394 °F (201 °C)
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:	3.5 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
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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 Products	: Carbon monoxide, carbon dioxide and other organic substances.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

CAS No. 28064-14-4 Epoxy Phenol Novolac Resin Oral LD50 >2000 mg/kg (rat)			
Dermal	LD50	>2000 mg/kg (rabbit)	
Primary Irritant Skin: Eye: Sensitization:	Effect:	Irritant to skin and mucous membranes Irritating effect Sensitization possible through skin contact	

Carcinogenic Categories:	IARC	None of the ingredients is listed
	NTP	None of the ingredients is listed
	OSHA	None of the ingredients is listed

12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Persistence & Degradability:	No further relevant information available. No further relevant information available.
Bioaccumulative Potential:	No further relevant information available.
Mobility in Soil:	No further relevant information available.
Ecotoxicity:	Harmful to 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. Danger to drinking water even if small quantities leak into the ground. Harmful 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
International Inventory Canada (DSL)	<u>Status</u> Yes
Canada (DSL)	Yes
Canada (DSL) Europe (EINECS/ELINCS)	Yes Yes

16. OTHER INFORMATION

NFPA Ratings (scale 0 – 4)	Health, 2 Flammability, 1 Reactivity, 0 Personal Protection, H	
HMIS Ratings (scale 0 – 4)	Health, 2 Flammability, 1 Reactivity, 0 Personal Protection, H	How we way 2 How way 1 Recently 0 Mathematical Structures H

Key Legend Information

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