



## SAFETY DATA SHEET

### EPO-TEK EE129-4 Part A

#### 1. IDENTIFICATION

<u>Product Name</u>	EPO-TEK EE129-4 Part A
<u>Product No.</u>	EPO-TEK EE129-4 Part A
<u>Identified uses</u>	Adhesive.
<u>Supplier</u>	Epoxy Technology, Inc. 14 Fortune Drive Billerica, MA 01821 USA www.epotek.com (978) 667-3805 (978) 663-9782
<u>Emergency Telephone</u>	(800) 255-3924

#### 2. HAZARD(S) IDENTIFICATION

<u>Appearance</u>	Paste
<u>Color</u>	Silver.
<u>Odor</u>	Mild.
<u>GHS Pictogram</u>	



<u>Signal Word</u>	Warning
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#### Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H412	Harmful to aquatic life with long lasting effects.

#### Precautionary Statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P313	Get medical advice/attention.
P501	Dispose of contents/container in accordance with local regulations.

#### Contains

Epoxy Phenol Novolac  
Resorcinol Diglycidyl Ether

#### GHS Classification

Physical and Chemical Hazards	Not classified.
Human health	Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; Muta. 2 - H341; Carc. 2 - H351
Environment	Aquatic Chronic 3 - H412

#### Inhalation

In high concentrations, vapors may irritate throat and respiratory system.

## EPO-TEK EE129-4 Part A

### Ingestion

May cause discomfort if swallowed.

### Skin Contact

Irritating to skin. May cause sensitization by skin contact.

### Eye Contact

Irritating to eyes.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Curing Agent	1-5%
CAS No.: Proprietary	EC No.: Proprietary
GHS Classification Acute Tox. 4 - H302; Acute Tox. 4 - H312; Skin Corr. 1B - H314; Skin Sens. 1 - H317; Aquatic Chronic 3 - H412	

Epoxy Phenol Novolac	5-10%
CAS No.: 9003-36-5	EC No.:
GHS Classification Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; Aquatic Chronic 2 - H411	

Reactive Diluent Blend	1-5%
CAS No.: Proprietary	EC No.: Proprietary
GHS Classification Acute Tox. 4 - H312; Acute Tox. 4 - H332; Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317	

Resorcinol Diglycidyl Ether	5-10%
CAS No.: 101-90-6	EC No.:
GHS Classification Acute Tox. 4 - H302; Acute Tox. 4 - H312; Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; Muta. 2 - H341; Carc. 2 - H351; Aquatic Chronic 2 - H411	

## 4. FIRST-AID MEASURES

### Description of first aid measures

#### Inhalation

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

#### Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues.

#### Skin Contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

#### Eye Contact

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayedInhalation

Inhalation of dusts during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

Ingestion

May cause discomfort if swallowed.

Skin Contact

Allergic rash. Skin irritation.

Eye Contact

May cause severe irritation to eyes.

Indication of any immediate medical attention and special treatment neededNotes To The Physician

Treat Symptomatically.

## 5. FIRE-FIGHTING MEASURES

Flash point (°C) >93

Extinguishing Media

Fire can be extinguished using: Dry chemicals. Foam. Water spray.

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Protective Equipment For Fire-Fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear protective clothing as described in Section 8 of this material safety data sheet.

Environmental Precautions

Do not discharge into drains, water courses or onto the ground. Avoid release to the environment.

Spill Clean Up Methods

Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

Reference to other sections

For personal protection, see section 8.

## 7. HANDLING AND STORAGE

Handling

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product.

Avoid inhalation of vapors. Provide good ventilation.

Storage

Store at -40 degrees C. Keep container tightly sealed when not in use.

Storage Class

Chemical storage.

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
Silver (dust)*	PEL		0.01 mg/m3			as Ag
Silver (dust)*	ACGIH		0.1 mg/m3			as Ag

## EPO-TEK EE129-4 Part A

COMPONENT	IDLH
Silver (dust)*	10 mg/m3

ACGIH=American Conference of Governmental Industrial Hygienists.

*\*This product contains Silver, which may cause respiratory irritation when inhaled in fine particulate form. Silver should not be respirable in this formulation. However, if cured material will be ground, milled, etc., wear respiratory protection to avoid inhaling any dust that may be produced.*

### Protective Equipment



### Engineering Measures

Provide adequate ventilation.

### Respiratory Equipment

If ventilation is insufficient, suitable respiratory protection must be provided.

### Hand Protection

Wear protective gloves.

### Eye Protection

Wear goggles/face shield.

### Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

### Hygiene Measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance</u>	Paste
<u>Color</u>	Silver.
<u>Odor</u>	Mild.
<u>Solubility</u>	Insoluble in water
<u>Bulk Density</u>	2.95 kg/l
<u>Flash point (°C)</u>	>93

## 10. STABILITY AND REACTIVITY

### Reactivity

Violent reaction with: Acids. Alkalis. Strong oxidizing agents. Strong reducing agents. Heavy metals.

### Stability

Stable under normal temperature conditions.

### Hazardous Polymerisation

Will not polymerise.

### Conditions To Avoid

Avoid contact with oxidizers or reducing agents. Avoid heat, flames and other sources of ignition.

### Materials To Avoid

Strong acids. Strong oxidizing substances. Strong reducing agents. Strong alkalis. Other metals or alloys.

### Hazardous Decomposition Products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. TOXICOLOGICAL INFORMATION

### Toxicological Information on Ingredients:

Toxic Dose 1 - LD 50

2, 570 mg/kg (oral, rat)

Toxic Dose 2 - LD 50

980 mg/kg (oral, mouse)

Carcinogenicity:

IARC Carcinogenicity

IARC Group 2B Possibly carcinogenic to humans.

NTP - Carcinogenicity

Reasonably anticipated human carcinogen.

## 12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Degradability

The product is moderately biodegradable.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility:

Mobile.

Other adverse effects

Not known.

## 13. DISPOSAL CONSIDERATIONS

Waste Management

Dangerous for the environment: May cause long-term adverse effects in the aquatic environment.

Disposal Methods

Dispose of waste and residues in accordance with local authority requirements.

## 14. TRANSPORT INFORMATION

General

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, DOT).

Road Transport Notes

Not Classified

Rail Transport Notes

Not classified.

Sea Transport Notes

Not classified.

Air Transport Notes

Not classified.

Transport Labels

No transport warning sign required.

Environmentally Hazardous Substance/Marine Pollutant

No.

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code Notes

Not applicable.

## 15. REGULATORY INFORMATION

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed.

Silver; 1, 000 lbs (454 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

The following ingredients are listed.

Resorcinol Diglycidyl Ether

Silver

CAA Accidental Release Prevention

None of the ingredients are listed.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

WARNING: This product contains a substance known to the State of California to cause cancer and/or reproductive harm.

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed. Silver

California Air Toxics "Hot Spots" (A-II)

The following ingredients are listed.

Resorcinol Diglycidyl Ether

Massachusetts "Right To Know" List

The following ingredients are listed.

Curing Agent

Resorcinol Diglycidyl Ether

Silver

Rhode Island "Right To Know" List

The following ingredients are listed.

Silver

Minnesota "Right To Know" List

The following ingredients are listed.

Resorcinol Diglycidyl Ether

Silver

New Jersey "Right To Know" List

The following ingredients are listed. Curing Agent

Resorcinol Diglycidyl Ether

Silver

Pennsylvania "Right To Know" List

The following ingredients are listed.

Curing Agent

Resorcinol Diglycidyl Ether

Silver

International Inventories

EU - EINECS/ELINCS

At least one ingredient is not listed.

Canada – DSL/NDSL

All ingredients are listed or exempt.

US - TSCA

All ingredients are listed or exempt.

US – TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

All ingredients are listed or exempt.

Japan – MITI

At least one ingredient is not listed.

Korea - KECI

At least one ingredient is not listed.

## EPO-TEK EE129-4 Part A

China - IECSC

All ingredients are listed or exempt.

Philippines – PICCS

All ingredients are listed or exempt.

### 16. OTHER INFORMATION

Revision Date 10 June 2014

Revision 1

#### Disclaimer

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Epoxy Technology, Inc. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Epoxy Technology, Inc. accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.



## SAFETY DATA SHEET

### EPO-TEK EE129-4 Part B

#### 1. IDENTIFICATION

<u>Product Name</u>	EPO-TEK EE129-4 Part B
<u>Product No.</u>	EPO-TEK EE129-4 Part B
<u>Identification No.</u>	UN2735
<u>Identified uses</u>	Adhesive.
<u>Supplier</u>	Epoxy Technology, Inc. 14 Fortune Drive Billerica, MA 01821 USA www.epotek.com (978) 667-3805 (978) 663-9782
<u>Emergency Telephone</u>	(800) 255-3924

#### 2. HAZARD(S) IDENTIFICATION

<u>Appearance</u>	Paste
<u>Color</u>	Silver.
<u>Odor</u>	Mild.
<u>GHS Pictogram</u>	



<u>Signal Word</u>	Danger
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#### Hazard Statements

H314	Causes severe skin burns and eye damage.
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#### Precautionary Statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P501	Dispose of contents/container in accordance with local regulations.

#### GHS Classification

Physical and Chemical Hazards	Not classified.
Human health	Skin Corr. 1B - H314
Environment	Not classified.

#### Inhalation

Gas or vapor in high concentrations may irritate respiratory system.

#### Ingestion

May cause discomfort if swallowed.

#### Skin Contact

Causes burns.

#### Eye Contact

Causes burns. Risk of corneal damage.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS



Substituted Amine Blend		10-30%
CAS No.: Proprietary	EC No.: Proprietary	
GHS Classification Acute Tox. 5 - H303; Skin Corr. 1B - H314		

#### 4. FIRST-AID MEASURES

##### Description of first aid measures

###### Inhalation

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

###### Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues.

###### Skin Contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing.

###### Eye Contact

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

##### Most important symptoms and effects, both acute and delayed

###### Inhalation

Inhalation of dusts during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

###### Ingestion

May cause discomfort if swallowed.

###### Skin Contact

Burns can occur.

###### Eye Contact

Extreme irritation of eyes and mucous membranes, including burning and tearing. Corneal damage.

##### Indication of any immediate medical attention and special treatment needed

###### Notes To The Physician

Treat Symptomatically.

#### 5. FIRE-FIGHTING MEASURES

Flash point (°C) 121

###### Extinguishing Media

Fire can be extinguished using: Dry chemicals. Foam. Water spray.

###### Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

###### Protective Equipment For Fire-Fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### 6. ACCIDENTAL RELEASE MEASURES

###### Personal Precautions

Wear protective clothing as described in Section 8 of this material safety data sheet.

###### Environmental Precautions

Avoid release to the environment.

###### Spill Clean Up Methods

Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

###### Reference to other sections

For personal protection, see section 8.

## 7. HANDLING AND STORAGE

Handling

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product. Provide good ventilation.

Storage

Store at -40 degrees C. Keep container tightly sealed when not in use. Store away from: Acids. Oxidizing material.

Storage Class

Chemical storage.

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
Silver (dust)*	PEL		0.01 mg/m3			as Ag
Silver (dust)*	ACGIH		0.1 mg/m3			as Ag
COMPONENT						IDLH
Silver (dust)*						10 mg/m3

ACGIH=American Conference of Governmental Industrial Hygienists.

*\*This product contains Silver, which may cause respiratory irritation when inhaled in fine particulate form. Silver should not be respirable in this formulation. However, if cured material will be ground, milled, etc., wear respiratory protection to avoid inhaling any dust that may be produced.*

Protective EquipmentProcess Conditions

Provide eyewash station.

Engineering Measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

Respiratory Equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

Hand Protection

Use suitable protective gloves if risk of skin contact.

Eye Protection

If risk of splashing, wear safety goggles or face shield.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene Measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Paste

Color

Silver.

Odor

Mild.

Solubility

Slightly soluble in water.

Initial boiling point and boiling range  
(°C)

260

## EPO-TEK EE129-4 Part B

<u>Bulk Density</u>	3.62 kg/l
<u>Vapor density (air=1)</u>	>1
<u>Evaporation rate</u>	<BuAc
<u>pH-Value, Conc. Solution</u>	>10
<u>Flash point (°C)</u>	121

### 10. STABILITY AND REACTIVITY

#### Reactivity

Violent reaction with: Acids. Alkalis. Strong oxidizing agents. Strong reducing agents.

#### Stability

Stable under normal temperature conditions.

#### Hazardous Polymerisation

Will not polymerise.

#### Conditions To Avoid

Avoid contact with oxidizers or reducing agents. Avoid heat, flames and other sources of ignition. Avoid contact with acids and alkalis.

#### Materials To Avoid

Strong acids. Strong alkalis. Strong reducing agents. Strong oxidizing substances.

#### Hazardous Decomposition Products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

### 11. TOXICOLOGICAL INFORMATION

No toxicological information available.

### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

The product contains a substance which is harmful to aquatic organisms.

#### Degradability

The product is biodegradable.

#### Bioaccumulative potential

No data available on bioaccumulation.

#### Mobility:

Mobile.

#### Other adverse effects

Not known.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal Methods

Dispose of waste and residues in accordance with local authority requirements.

### 14. TRANSPORT INFORMATION

#### Road Transport Notes

#### Rail Transport Notes

#### Sea Transport Notes

#### Air Transport Notes

UN No. (DOT/TDG) UN2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

DOT Proper Shipping Name AMINES, LIQUID, CORROSIVE, N.O.S. (Substituted Amine Blend)

TDG Proper Shipping Name AMINES, LIQUID, CORROSIVE, N.O.S. (Substituted Amine Blend)

#### DOT Hazard Class

8

#### DOT Hazard Label

Corrosive

<u>TDG</u>	<u>Class</u>
	8
<u>TDG Label(s)</u>	8
<u>IMDG Class</u>	8
<u>ICAO Class</u>	8
<u>Transport Labels</u>	



<u>DOT Pack Group</u>	III
<u>IMDG Pack Group</u>	III
<u>Air Pack Group</u>	III
<u>Environmentally Hazardous Substance/Marine Pollutant</u>	
No.	

<u>EMS</u>	F-A, S-B
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## 15. REGULATORY INFORMATION

### US Federal Regulations

#### SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

#### CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed.

Silver; 1, 000 lbs (454 Kg)

#### SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

#### SARA 313 Emission Reporting

The following ingredients are listed.

Silver

#### CAA Accidental Release Prevention

None of the ingredients are listed.

#### OSHA Highly Hazardous Chemicals

None of the ingredients are listed.

### US State Regulations

#### California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed.

#### California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed.

Silver

#### California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed.

#### Massachusetts "Right To Know" List

The following ingredients are listed.

Silver

#### Rhode Island "Right To Know" List

The following ingredients are listed.

Silver

#### Minnesota "Right To Know" List

The following ingredients are listed.

Silver

New Jersey "Right To Know" List

The following ingredients are listed.

Substituted Amine

Silver

Pennsylvania "Right To Know" List

The following ingredients are listed.

Silver

International InventoriesEU - EINECS/ELINCS

At least one ingredient is not listed.

Canada – DSL/NDSL

All ingredients are listed or exempt.

US - TSCA

All ingredients are listed or exempt.

US – TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

All ingredients are listed or exempt.

Japan – MITI

At least one ingredient is not listed.

Korea - KECI

All ingredients are listed or exempt.

China - IECSC

All ingredients are listed or exempt.

Philippines – PICCS

All ingredients are listed or exempt.

**16. OTHER INFORMATION**

Revision Date 10 June 2014

Revision 1

**Disclaimer**

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Epoxy Technology, Inc. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Epoxy Technology, Inc. accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.