



## SAFETY DATA SHEET EPO-TEK 354-T Part A

### 1. IDENTIFICATION

<u>Product Name</u>	EPO-TEK 354-T Part A
<u>Product No.</u>	EPO-TEK 354-T Part A
<u>Identification No.</u>	UN3082
<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>	Tan.
<u>Odor</u>	Slight odor.
<u>GHS Pictogram</u>	



Signal Word Warning

#### Hazard Statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H371	May cause damage to organs .
H411	Toxic to aquatic life with long lasting effects.

#### Precautionary Statements

P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
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.
P313	Get medical advice/attention.
P501	Dispose of contents/container to ...

#### GHS Classification

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H302;Acute Tox. 4 - H312;Acute Tox. 4 - H332;Skin Irrit. 2 - H315;Eye Irrit. 2 - H319;Skin Sens. 1 - H317;STOT SE 2 - H371
Environment	Aquatic Chronic 2 - H411

# EPO-TEK 354-T Part A

## Inhalation

Harmful by inhalation. Vapors may irritate throat and respiratory system and cause headache, dizziness and dullness.

## Ingestion

Harmful if swallowed. May cause stomach pain or vomiting.

## Skin Contact

Harmful in contact with skin. May cause sensitization by skin contact. Irritating to skin.

## Eye Contact

May cause severe irritation to eyes.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Epoxy Phenol Novolac	60-100%
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	
Polar Activator	1-5%
CAS No.: Proprietary	EC No.: Proprietary
GHS Classification Flam. Liq. 2 - H225; Acute Tox. 3 - H301; Acute Tox. 3 - H311; Acute Tox. 3 - H331; STOT SE 1 - H370	

### 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 delayed

##### Inhalation

Vapors may cause headache, fatigue, dizziness and nausea. Irritation of nose, throat and airway.

##### Ingestion

May cause stomach pain or vomiting. Drowsiness, dizziness, disorientation, vertigo.

##### Skin Contact

Allergic rash. Severe irritation.

##### Eye Contact

May cause severe irritation to eyes.

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

##### Notes To The Physician

Treat Symptomatically.

### 5. FIRE-FIGHTING MEASURES

# EPO-TEK 354-T Part A

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.

Special Fire Fighting Procedures

Avoid breathing fire 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 onto the ground or into water courses. 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 moderate temperatures in dry, well-ventilated area. Keep container tightly sealed when not in use. Store away from: 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
Polar Activator	ACGIH	200 ppm		250 ppm		Skin
Polar Activator	PEL	200 ppm	260 mg/m3			
COMPONENT						IDLH
Polar Activator						6000 ppm

ACGIH=American Conference of Governmental Industrial Hygienists.

Skin: Danger of cutaneous absorption. (ACGIH)

Protective Equipment



Process Conditions

Provide eyewash station.

Engineering Measures

Provide adequate ventilation.

Respiratory Equipment

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

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## 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>	Tan.
<u>Odor</u>	Slight odor.
<u>Solubility</u>	Insoluble in water
<u>Bulk Density</u>	1.12 kg/l
<u>Evaporation rate</u>	<BuAc
<u>Flash point (°C)</u>	93

## 10. STABILITY AND REACTIVITY

### Reactivity

Violent reaction with: Strong oxidizing agents.

### Stability

Stable under normal temperature conditions.

### Hazardous Polymerisation

Will not occur.

### Conditions To Avoid

Avoid excessive heat for prolonged periods of time. Avoid contact with strong oxidizers. Avoid heat, flames and other sources of ignition.

### Materials To Avoid

Strong oxidizing substances.

### Hazardous Decomposition Products

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## 11. TOXICOLOGICAL INFORMATION

### Toxicological Information on Ingredients:

#### Toxic Dose 1 - LD 50

>5, 000 mg/kg (oral, rat)

Epoxy Phenol Novolac (CAS: 9003-36-5)

#### Toxic Dose 1 - LD 50

6, 200 mg/kg (oral, rat)

Polar Activator (CAS: Proprietary)

#### Toxic Dose 2 - LD 50

15, 800 mg/kg (dermal, rabbit)

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

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

### Acute Fish Toxicity

Very toxic to aquatic organisms.

### Degradability

The product is biodegradable.

### Bioaccumulative potential

The product contains potentially bio-accumulating substances.

# EPO-TEK 354-T Part A

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

<u>UN No. (DOT/TDG)</u>	UN3082
<u>UN No. (IMDG)</u>	3082
<u>UN No. (ICAO)</u>	3082
<u>DOT Proper Shipping Name</u>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Phenol Novolac)
<u>TDG Proper Shipping Name</u>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Phenol Novolac)
<u>DOT Hazard Class</u>	9
<u>DOT Hazard Label</u>	Class 9
<u>TDG Class</u>	9
<u>TDG Label(s)</u>	9
<u>IMDG Class</u>	9
<u>ICAO Class</u>	9
<u>Transport Labels</u>	



<u>DOT Pack Group</u>	III
<u>IMDG Pack Group</u>	III
<u>Air Pack Group</u>	III

Environmentally Hazardous Substance/Marine Pollutant



<u>EMS</u>	F-A, S-F
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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.

Polar Activator; 5, 000 lbs (2270 Kg)

## EPO-TEK 354-T Part A

### SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

### SARA 313 Emission Reporting

The following ingredients are listed.

Polar Activator

### 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.

Polar Activator

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

None of the ingredients are listed.

#### Massachusetts "Right To Know" List

The following ingredients are listed.

Polar Activator

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

The following ingredients are listed.

Polar Activator

#### Minnesota "Right To Know" List

The following ingredients are listed.

Polar Activator

#### New Jersey "Right To Know" List

The following ingredients are listed.

Polar Activator

#### Pennsylvania "Right To Know" List

The following ingredients are listed.

Polar Activator

### 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

All ingredients are listed or exempt.

#### China - IECSC

All ingredients are listed or exempt.

Philippines – PICCS

All ingredients are listed or exempt.

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16. OTHER INFORMATION

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<u>Revision Date</u>	10/02/2014
<u>Revision</u>	1

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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 354-T Part B

### 1. IDENTIFICATION

<u>Product Name</u>	EPO-TEK 354-T Part B
<u>Product No.</u>	EPO-TEK 354-T Part B
<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>	Liquid
<u>Color</u>	Amber.
<u>Odor</u>	Slight odor.
<u>GHS Pictogram</u>	



Signal Word Danger

#### Hazard Statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

#### Precautionary Statements

P271	Use only outdoors or in a well-ventilated area.
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.
P501	Dispose of contents/container in accordance with local regulations.

#### GHS Classification

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H302; Skin Irrit. 2 - H315; Eye Dam. 1 - H318; STOT SE 3 - H335
Environment	Not classified.

#### Inhalation

Irritating to respiratory system.

#### Ingestion

Harmful if swallowed. May cause stomach pain or vomiting. May cause chemical burns in mouth, oesophagus and stomach.

#### Skin Contact

Irritating to skin.



# EPO-TEK 354-T Part B

## Eye Contact

Extreme irritation of eyes and mucous membranes, including burning and tearing. Risk of serious damage to eyes. Risk of corneal damage.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Imidazole Blend	60-100%
CAS No.: Proprietary	EC No.: Proprietary
GHS Classification Acute Tox. 4 - H302; Skin Irrit. 2 - H315; Eye Dam. 1 - H318; STOT SE 3 - H335	
Reactive Diluent	1-5%
CAS No.: Proprietary	EC No.: Proprietary
GHS Classification Acute Tox. 4 - H302; Eye Dam. 1 - H318; STOT SE 3 - H336	

### 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. Continue to rinse for at least 15 minutes and get medical attention.

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

##### Inhalation

Irritation of nose, throat and airway. Upper respiratory irritation.

##### Ingestion

May cause stomach pain or vomiting. May cause chemical burns in mouth and throat.

##### Skin Contact

Skin irritation.

##### 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) 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.

## EPO-TEK 354-T Part B

### Special Fire Fighting Procedures

Avoid breathing fire 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 handle broken packages without protective equipment. Do not eat, drink or smoke when using the product. Provide good ventilation.

### Storage

Store at moderate temperatures in dry, well-ventilated area. Keep container tightly sealed when not in use. Keep away from heat, sparks and open flame. Store separated from: Acids. Alkalis. Reducing Agents. 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

### 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 tight-fitting goggles or face shield.

### Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

## EPO-TEK 354-T Part B

### 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. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance</u>	Liquid
<u>Color</u>	Amber.
<u>Odor</u>	Slight odor.
<u>Solubility</u>	Slightly soluble in water.
<u>Flash point (°C)</u>	93

## 10. STABILITY AND REACTIVITY

### Reactivity

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

### Stability

Stable under normal temperature conditions.

### Hazardous Polymerisation

Will not occur.

### Conditions To Avoid

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

### Materials To Avoid

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

### Hazardous Decomposition Products

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## 11. TOXICOLOGICAL INFORMATION

### Toxicological Information on Ingredients:

### Reactive Diluent (CAS: Proprietary)

#### Toxic Dose 1 - LD 50

1, 540 mg/kg (oral, rat)

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

There are no data on the ecotoxicity of this product.

### Degradability

The product is moderately biodegradable.

### Bioaccumulative potential

The product contains potentially bio-accumulating substances.

### Mobility:

Semi-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

### 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)

None of the ingredients are listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

None of the ingredients are listed.

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)

None of the ingredients are listed.

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

None of the ingredients are listed.

Massachusetts "Right To Know" List

None of the ingredients are listed.

Rhode Island "Right To Know" List

None of the ingredients are listed.

Minnesota "Right To Know" List

None of the ingredients are listed.

New Jersey "Right To Know" List

None of the ingredients are listed.

Pennsylvania "Right To Know" List

None of the ingredients are listed.

### International Inventories

EU - EINECS/ELINCS

All ingredients are listed or exempt.

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.

China - IECSC

All ingredients are listed or exempt.

Philippines – PICCS

At least one ingredient is not listed.

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16. OTHER INFORMATION

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Revision Date 10/02/2014

Revision 1

Disclaimer

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