Revision Date 5 June 2014 Revision 1



SAFETY DATA SHEET EPO-TEK 360T Part A

1. IDENTIFICATION

Product Name	EPO-TEK 360T Part A
Product No.	EPO-TEK 360T Part A
Identification No.	UN3082
Identified uses	Adhesive.
<u>Supplier</u>	Epoxy Technology, Inc. 14 Fortune Drive Billerica, MA 01821 USA www.epotek.com (978) 667-3805 (978) 663-9782
Emergency Telephone	(800) 255-3924

2. HAZARD(S) IDENTIFICATION

Appearance	Paste
Color	Tan.
Odor	Mild.
GHS Pictogram	



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 in accordance with local regulations.		
Contains	Bisphenol A Diglycidyl Ether Resin			
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		

Human Health

In high concentrations, vapors and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Irritating to eyes and skin. Harmful by inhalation, in contact with skin and if swallowed.

General Information

The severity of the symptoms described below will vary based on concentration and length of exposure.

Inhalation

In high concentrations, vapors may irritate throat and respiratory system and cause coughing. Harmful by inhalation.

Ingestion

Gastrointestinal symptoms, including upset stomach. Harmful if swallowed.

Skin Contact

Irritating to skin. Harmful in contact with skin.

Eye Contact

Irritating and may cause redness and pain.

Environment

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Bisphenol A Diglycidyl Ether Resin

CAS No.: 25085-99-8

EC No.:

GHS Classification

Skin Irrit. 2 - H315; Eye Irrit. 2B - H320; Skin Sens. 1 - H317; Aquatic Chronic 2 - H411

 Polar Activator
 1-5%

 CAS No.: Proprietary
 EC No.: Proprietary

 GHS Classification
 Elameration

 Flam. Liq. 2 - H225; Acute Tox. 3 - H301; Acute Tox. 3 - H311; Acute Tox. 3 - H331; STOT SE 1 - H370

 Reactive Diluent
 10-30%

30-60%

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

Composition Comments

The Data Shown is in accordance with the latest EC Directives.

4. FIRST-AID MEASURES

Description of first aid measures

General Information

General first aid, rest, warmth and fresh air. Do not give victim anything to drink if they are unconscious. Get medical attention if any discomfort continues.

Inhalation

Place unconscious person on the side in the recovery position and ensure breathing can take place. If respiratory problems, artificial respiration/oxygen. Get medical attention if any discomfort continues.

Ingestion

Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Transport immediately to hospital and bring along these instructions.

Skin Contact

Immediately remove contaminated clothing. Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

Eye Contact

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 promptly if symptoms occur after washing.

Most important symptoms and effects, both acute and delayed

Inhalation

Vapors may cause headache, fatigue, dizziness and nausea.

Ingestion May cause stomach pain or vomiting. Skin Contact Severe irritation. Allergic rash. Eye Contact Irritation of eyes and mucous membranes.

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. Carbon dioxide (CO2).

Hazardous combustion products

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

Unusual Fire & Explosion Hazards

Fire causes formation of toxic gases.

Special Fire Fighting Procedures

Avoid breathing fire vapors. Water spray should be used to cool containers.

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

Absorb in vermiculite, dry sand or earth and place into containers. Wash thoroughly after dealing with a spillage.

Reference to other sections

For personal protection, see section 8.

7. HANDLING AND STORAGE

<u>Handling</u>

Avoid spilling, skin and eye contact. Provide good ventilation. Avoid inhalation of vapors. Do not eat, drink or smoke when using the product.

Storage

Store at moderate temperatures in dry, well-ventilated area. Keep containers tightly closed. Keep away from heat, sparks and open flame. Store away from: Oxidizing material. Reducing Agents.

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

All handling to take place in well-ventilated area.

Respiratory Equipment

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

Hand Protection

Wear protective gloves. Neoprene gloves are recommended. Barrier cream applied before work may make it easier to clean the skin after exposure, but does not prevent absorption through the skin.

Eye Protection

Wear splash-proof eye goggles to prevent any possibility of eye contact.

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	Tan.		
Odor	Mild.		
Solubility	Slightly soluble in water.		
Vapor density (air=1)	>1		
Evaporation rate	<buac< td=""></buac<>		
Flash point (°C)	>121		
Not known.			

10. STABILITY AND REACTIVITY

Reactivity

Violent reaction with: Strong oxidizing agents. Strong reducing agents. <u>Stability</u> Stable under normal temperature conditions. <u>Hazardous Polymerisation</u> Will not polymerise. <u>Conditions To Avoid</u> Avoid exposure to high temperatures or direct sunlight. Avoid contact with oxidizers or reducing agents. <u>Materials To Avoid</u> Strong oxidizing substances. Strong reducing agents.

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

11. TOXICOLOGICAL INFORMATION

Toxicological Information on Ingredients:

Bisphenol A Diglycidyl Ether Resin (CAS: 25085-99-8)

<u>Toxic Dose 1 - LD 50</u> >15, 000 mg/kg (oral, rat) <u>Toxic Dose 2 - LD 50</u> >23, 000 mg/kg (dermal, rabbit)

Reactive Diluent (CAS: Proprietary)

1, 163 mg/kg (oral, rat)

Polar Activator (CAS: Proprietary)

<u>Toxic Dose 1 - LD 50</u> 6, 200 mg/kg (oral, rat) <u>Toxic Dose 2 - LD 50</u> 15, 800 mg/kg (dermal, rabbit)

Toxic Dose 1 - LD 50

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Degradability

No data available.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility:

The product is partly soluble in water. May spread in the aquatic environment.

Other adverse effects

Not known.

13. DISPOSAL CONSIDERATIONS

Waste Management

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

Disposal Methods

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

14. TRANSPORT INFORMATION

General	Regulated. See information below.
UN No. (DOT/TDG)	UN3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
DOT Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Diglycidyl Ether Resin)
TDG Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Diglycidyl Ether Resin)
DOT Hazard Class	
9	
DOT Hazard Label	
Class 9	
TDG Class	9
TDG Label(s)	9
IMDG Class	9
ICAO Class	9



DOT Pack Group	Ш
IMDG Pack Group	Ш
Air Pack Group	Ш

Environmentally Hazardous Substance/Marine Pollutant



EMS

F-A, S-F

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) <u>SARA Extremely Hazardous Substances EPCRA Reportable Quantities</u> None of the ingredients are listed. <u>SARA 313 Emission Reporting</u> The following ingredients are listed. Polar Activator <u>CAA Accidental Release Prevention</u> None of the ingredients are listed. <u>OSHA Highly Hazardous Chemicals</u> 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. <u>Massachusetts "Right To Know" List</u> The following ingredients are listed. Polar Activator <u>Rhode Island "Right To Know" List</u> The following ingredients are listed. Polar Activator <u>Rhode Island "Right To Know" List</u> The following ingredients are listed. Polar Activator <u>Rhode Island "Right To Know" List</u> The following ingredients are listed. Polar Activator <u>Rhode Island "Right To Know" List</u> The following ingredients are listed. Polar Activator <u>Minnesota "Right To Know" List</u> 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.	
<u>US - TSCA</u>	
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	ON
Revision Date	5 June 2014

Revision Date Revision

5 Jui

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 360T Part B

1. IDENTIFICATION		
Product Name	EPO-TEK 360T Part B	
	EPO-TEK 360T Part B	
Product No. Identification No.	UN3267	
Identified uses	Adhesive. Epoxy Technology, Inc.	
Supplier	14 Fortune Drive	
	Billerica, MA 01821	
	USA	
	www.epotek.com	
	(978) 667-3805 (978) 663-9782	
Emergency Telephone	(800) 255-3924	
2. HAZARD(S) IDENTI	FICATION	
Appearance	Liquid	
Color	Amber.	
Odor	Slight odor.	
GHS Pictogram	-	
Signal Word	Danger	
Hazard Statements		
	H302	Harmful if swallowed.
	H314	Causes severe skin burns and eye damage.
Precautionary Statements	H361d	CLP only - Suspected of damaging the unborn child.
	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
	5000-040	contact lenses, if present and easy to do. Continue rinsing.
	P308+313 P310	IF exposed or concerned: Get medical advice/attention.
	P501	Immediately call a POISON CENTER or doctor/physician. Dispose of contents/container in accordance with local regulations.
Contains	Imidazole	
GHS Classification		
	Physical and Chemical Hazards	Not classified.
	Human health	Acute Tox. 4 - H302;Skin Corr. 1B - H314;Repr. 2 - H361d
	Environment	Not classified.
Ingestion		
Harmful if swallowed.		
Skin Contact		

Causes burns.

Eye Contact

Causes burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Imidazole

30-60%

60-100%

CAS No.: 288-32-4

GHS Classification

Acute Tox. 4 - H302; Skin Corr. 1B - H314; Repr. 2 - H361d

Imidazole Blend

CAS No.: Proprietary

EC No.: Proprietary

FC No .

GHS Classification Acute Tox. 4 - H302; Eye Dam. 1 - H318

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Ingestion

DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Remove victim immediately from source of exposure. Drink plenty of water. Get medical attention immediately! Provide rest, warmth and fresh air. Skin Contact

Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if irritation persists after washing. Eye Contact

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. Get medical attention promptly if symptoms occur after washing.

Most important symptoms and effects, both acute and delayed

Ingestion May cause chemical burns in mouth and throat. Skin Contact Burns can occur. Eye Contact Extreme irritation of eyes and mucous membranes, including burning and tearing.

Indication of any immediate medical attention and special treatment needed

93

Notes To The Physician

Treat Symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point (°C)

Extinguishing Media

Dry chemicals. Foam. Carbon dioxide (CO2).

Hazardous combustion products

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

Special Fire Fighting Procedures

Water spray should be used to cool containers.

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

Use protective gloves, goggles and suitable protective clothing.

Environmental Precautions

Avoid release to the environment.

Spill Clean Up Methods

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Absorb with sand or other inert absorbent. Transfer to a container for disposal.

Reference to other sections

For personal protection, see section 8.

7. HANDLING AND STORAGE

Handling

Avoid spilling, skin and eye contact. Do not eat, drink or smoke when using the product. Provide good ventilation.

Storage

Store at moderate temperatures in dry, well-ventilated area. Keep away from heat, sparks and open flame. Keep containers tightly closed. Store away from: Oxidizing material. Reducing Agents.

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 general and local exhaust ventilation.

Respiratory Equipment

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

Hand Protection

Use protective gloves.

Eye Protection

Wear approved safety goggles.

Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor 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. Wash promptly with soap & water if skin 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	Liquid	
Color	Amber.	
Odor	Slight odor.	
Solubility	Slightly soluble in water.	
Bulk Density	1.02 kg/m3	
Vapor density (air=1)	>1	
Evaporation rate	<buac< td=""></buac<>	
Flash point (°C)	93	
10. STABILITY AND REACTIVITY		

Reactivity

Reaction with: 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.
Materials To Avoid
Strong oxidizing substances. Strong reducing agents.
Hazardous Decomposition Products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. In case of fire, toxic gases (CO, CO2, NOx) may be formed.

11. TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation: Corrosive to skin.

Serious eye damage/irritation: Corrosive to eyes.

Reproductive Toxicity: Possible reproductive impact.

Toxicological Information on Ingredients:

Imidazole (CAS: 288-32-4)

Toxic Dose 1 - LD 50 970 mg/kg (oral, rat)

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not known.

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

	EI O-TER SOOT T ARD
Road Transport Notes	Not Classified
Rail Transport Notes	Not classified.
Sea Transport Notes	Not classified.
Air Transport Notes	Not classified.
UN No. (DOT/TDG)	UN3267
UN No. (IMDG)	3267
UN No. (ICAO)	3267
DOT Proper Shipping Name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)
TDG Proper Shipping Name	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)
DOT Hazard Class	
8	
DOT Hazard Label	
Corrosive	
TDG	Class
	8
TDG	Label(s)
	8
IMDG	Class
	8
ICAO	Class
	8
Transport Labels	



DOT Pack Group	III
IMDG Pack Group	Ш
Air Pack Group	111

Environmentally Hazardous Substance/Marine Pollutant No.

EMS

F-A, S-B

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
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)
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
All ingredients are listed or exempt.
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 Revision 5 June 2014 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.