



SAFETY DATA SHEET

EPO-TEK 377 Part A

1. IDENTIFICATION

<u>Product Name</u>	EPO-TEK 377 Part A
<u>Product No.</u>	EPO-TEK 377 Part A
<u>Identification No.</u>	UN3082
<u>Supplier</u>	Epoxy Technology, Inc. 14 Fortune Drive Billerica, MA 01821 USA (978) 667-3805 (978) 663-9782
<u>Emergency Telephone</u>	(800) 255-3924

2. HAZARD(S) IDENTIFICATION

<u>Appearance</u>	Liquid
<u>Color</u>	Clear
<u>Odor</u>	Mild.
<u>GHS Pictogram</u>	



<u>Signal Word</u>	Warning
--------------------	---------

Hazard Statements

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.
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.
P261	Avoid breathing vapour/spray.
P264	Wash contaminated skin thoroughly after handling.

Contains

Bisphenol A Diglycidyl Ether Resin

GHS Classification

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

Human Health

Harmful by inhalation and in contact with skin. Irritating to eyes and skin. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

General Information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

EPO-TEK 377 Part A

Inhalation

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

Ingestion

Gastrointestinal symptoms, including upset stomach.

Skin Contact

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

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	60-100%
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	
Reactive Diluent	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

Move the exposed person to fresh air at once. Get medical attention.

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

Skin Contact

Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Indication of any immediate medical attention and special treatment needed

Notes To The Physician

Treat Symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point (°C) 110

Extinguishing Media

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

Unusual Fire & Explosion Hazards

Fire causes formation of toxic gases.

Special Fire Fighting Procedures

Avoid breathing fire vapors. If possible, fight fire from protected position.

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

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

7. HANDLING AND STORAGE

Handling

Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level.

Storage

Store in tightly closed original container in a well-ventilated place. Store at room temperature.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment



Process Conditions

Provide eyewash station.

Engineering Measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. All handling to take place in well-ventilated area.

Respiratory Equipment

Wear mask supplied with: Gas cartridge suitable for organic substances.

Hand Protection

Use protective gloves made of: Neoprene. Nitrile. Rubber (natural, latex).

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 Liquid

Color Clear

Odor Mild.

EPO-TEK 377 Part A

Evaporation rate	<BuAc
Flash point (°C)	110

10. STABILITY AND REACTIVITY

Stability

No particular stability concerns.

Hazardous Decomposition Products

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)

Toxic Dose 1 - LD 50

>15, 000 mg/kg (oral, rat)

Toxic Dose 2 - LD 50

>23, 000 mg/kg (dermal, rabbit)

Reactive Diluent (CAS: Proprietary)

Toxic Dose 1 - LD 50

1, 163 mg/kg (oral, rat)

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste Management

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

Disposal Methods

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

14. TRANSPORT INFORMATION

<u>General</u>	No other information noted.
<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.
<u>TDG Proper Shipping Name</u>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<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>	



DOT Pack Group III

IMDG Pack Group III

Air Pack Group III

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.

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

The following ingredients are listed.

Reactive Diluent

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.

EPO-TEK 377 Part A

Australia - AICS

All ingredients are listed or exempt.

Japan – MITI

The following ingredients are listed.

Reactive Diluent

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 4 April 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 377 Part B

1. IDENTIFICATION

Product Name EPO-TEK 377 Part B
Product No. EPO-TEK 377 Part B
Supplier Epoxy Technology, Inc.
 14 Fortune Drive
 Billerica, MA 01821
 USA
 (978) 667-3805
 (978) 663-9782
Emergency Telephone (800) 255-3924

2. HAZARD(S) IDENTIFICATION

Appearance Liquid
Color Amber.
Odor Mild.
GHS Pictogram



Signal Word Danger

Hazard Statements

H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P285 In case of inadequate ventilation wear respiratory 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.
 P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 P501 Dispose of contents/container in accordance with local regulations.

Contains

Phthalic Anhydride

GHS Classification

Physical and Chemical Hazards Not classified.
 Human health Eye Dam. 1 - H318; Resp. Sens. 1 - H334; Skin Sens. 1 - H317
 Environment Not classified.

Inhalation

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

Ingestion

May cause discomfort if swallowed.

Skin Contact

May cause sensitization by skin contact.

Eye Contact

Risk of serious damage to eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Phthalic Anhydride	1-5%
CAS No.: 85-44-9	EC No.:
GHS Classification Acute Tox. 4 - H302; Skin Irrit. 2 - H315; Eye Dam. 1 - H318; Resp. Sens. 1 - H334; Skin Sens. 1 - H317; STOT SE 3 - H335	
Substituted Anhydride	60-100%
CAS No.: Proprietary	EC No.: Proprietary
GHS Classification Eye Dam. 1 - H318; Resp. Sens. 1 - H334; Skin Sens. 1 - H317	

4. FIRST-AID MEASURES

Description of first aid measuresInhalation

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 delayedInhalation

May cause an asthma-like shortness of breath.

Eye Contact

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

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.

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.

Spill Clean Up Methods

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.

7. HANDLING AND STORAGE

Handling

Avoid spilling, skin and eye contact.

Storage

Store at moderate temperatures in dry, well-ventilated area. Keep containers tightly closed.

Storage Class

Chemical storage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
Phthalic Anhydride	ACGIH	1 ppm				A4, Sen
Phthalic Anhydride	PEL	2 ppm	12 mg/m ³			
COMPONENT						IDLH
Phthalic Anhydride						60 mg/m ³

ACGIH=American Conference of Governmental Industrial Hygienists.

A4: Not Classifiable as a Human Carcinogen.

SEN: Sensitizer.

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

<u>Appearance</u>	Liquid
<u>Color</u>	Amber.
<u>Odor</u>	Mild.
<u>Bulk Density</u>	1.22 kg/l
<u>Flash point (°C)</u>	93

10. STABILITY AND REACTIVITY

Stability

Stable under normal temperature conditions.

EPO-TEK 377 Part B

Conditions To Avoid

Avoid heat, flames and other sources of ignition.

Materials To Avoid

Strong oxidizing substances. Strong reducing agents.

Hazardous Decomposition Products

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

11. TOXICOLOGICAL INFORMATION

Toxicological Information on Ingredients:

Substituted Anhydride (CAS: Proprietary)

Toxic Dose 1 - LD 50

4, 428 mg/kg (oral, rat)

Phthalic Anhydride (CAS: 85-44-9)

Toxic Dose 1 - LD 50

1, 530 mg/kg (oral, rat)

Toxic Dose 2 - LD 50

>10, 000 mg/kg (dermal, rabbit)

Toxic Conc. - LC 50

>210 mg/m³/1H (inhalation, rat)

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not regarded as dangerous for the environment.

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)

The following ingredients are listed.

Phthalic Anhydride; 5, 000 lbs (2270 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

The following ingredients are listed.

Phthalic Anhydride

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.

Phthalic Anhydride

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

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed.

Phthalic Anhydride

Rhode Island "Right To Know" List

The following ingredients are listed.

Phthalic Anhydride

Minnesota "Right To Know" List

The following ingredients are listed.

Phthalic Anhydride

New Jersey "Right To Know" List

The following ingredients are listed.

Phthalic Anhydride

Pennsylvania "Right To Know" List

The following ingredients are listed.

Phthalic Anhydride

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

At least one ingredient is not listed.

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.

EPO-TEK 377 Part B

Philippines – PICCS

At least one ingredient is not listed.

16. OTHER INFORMATION

<u>Revision Date</u>	4 April 2014
<u>Revision</u>	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.