



SAFETY DATA SHEET

EPO-TEK 320NC-2 Part A

1. IDENTIFICATION

<u>Product Name</u>	EPO-TEK 320NC-2 Part A
<u>Product No.</u>	EPO-TEK 320NC-2 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 (800) 255-3924
<u>Emergency Telephone</u>	

2. HAZARD(S) IDENTIFICATION

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



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

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

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.

<u>Contains</u>	Bisphenol A Diglycidyl Ether Resin
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GHS Classification

Physical and Chemical Hazards	Not classified.
Human health	Skin Irrit. 2 - H315; Eye Dam. 1 - H318; Skin Sens. 1 - H317; STOT SE 3 - H335
Environment	Aquatic Chronic 3 - H412

Inhalation

Gas or vapor may irritate respiratory system.

Ingestion

May cause discomfort if swallowed.

Skin Contact

May cause sensitization by skin contact. Irritating to skin.

Eye Contact

Risk of serious damage to eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Bisphenol A Diglycidyl Ether Resin	10-30%
CAS No.: 25085-99-8	EC No.:
GHS Classification Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; Aquatic Chronic 2 - H411	
Reactive Diluent	10-30%
CAS No.: Proprietary	EC No.: Proprietary
GHS Classification Acute Tox. 4 - H302; Acute Tox. 4 - H312; Acute Tox. 4 - H332; Skin Irrit. 2 - H315; Eye Dam. 1 - H318; Skin Sens. 1 - H317	

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

Irritation of nose, throat and airway. 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

Skin irritation. Allergic rash.

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. Carbon dioxide (CO2).

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. 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 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. Observe good chemical hygiene practices. Avoid inhalation of vapors.

Storage

Store at moderate temperatures in dry, well ventilated area. 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

Protective EquipmentProcess Conditions

Provide eyewash station.

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 made of: Impermeable material.

Eye Protection

Wear tight-fitting goggles or face shield.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

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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>	Black.
<u>Odor</u>	Mild.
<u>Solubility</u>	Slightly soluble in water.
<u>Vapor density (air=1)</u>	>1
<u>Evaporation rate</u>	<BuAc
<u>Flash point (°C)</u>	121

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 excessive heat for prolonged periods of time.

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:

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)

Toxic Dose 2 - LD 50

1, 130 mg/kg (dermal, rabbit)

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Acute Toxicity - Fish

Not available.

Degradability

No data available.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility:

The product has poor water-solubility.

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>General</u>	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, DOT).
<u>Road Transport Notes</u>	Not Classified
<u>Rail Transport Notes</u>	Not classified.
<u>Sea Transport Notes</u>	Not classified.
<u>Air Transport Notes</u>	Not classified.
<u>Transport Labels</u>	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 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 03/03/2015

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 320NC-2 Part B

1. IDENTIFICATION

Product Name EPO-TEK 320NC-2 Part B
Product No. EPO-TEK 320NC-2 Part B
Identification No. UN2327
Identified uses Adhesive.
Supplier 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 Liquid
Color Clear
Odor Pungent.
GHS Pictogram



Signal Word Danger

Hazard Statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

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.

Contains

Trimethyl-1, 6-Hexanediamine

GHS Classification

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H302; Skin Corr. 1B - H314; Skin Sens. 1 - H317
Environment	Aquatic Chronic 3 - H412

Inhalation

High concentrations of vapors may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

Ingestion

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

Skin Contact

May cause sensitization by skin contact. Causes burns.

EPO-TEK 320NC-2 Part B

Eye Contact

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Trimethyl-1, 6-Hexanediamine	60-100%
CAS No.: 25513-64-8	EC No.:
GHS Classification	
Acute Tox. 4 - H302; Skin Corr. 1B - H314; Skin Sens. 1 - H317; Aquatic Chronic 3 - H412	

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. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Keep the affected person warm and at rest. Get prompt medical attention.

Ingestion

DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Provide rest, warmth and fresh air. Get medical attention immediately!

Skin Contact

Remove affected person from source of contamination. Rinse the skin immediately with lots of water. Get medical attention promptly if symptoms occur 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

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

Ingestion

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

Skin Contact

Severe irritation. Burns can occur. Blistering may occur. Allergic rash.

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. Carbon dioxide (CO2).

Hazardous combustion products

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

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

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

EPO-TEK 320NC-2 Part B

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

Wear necessary protective equipment. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Do not let washing down water contaminate ponds or waterways.

Reference to other sections

For personal protection, see section 8.

7. HANDLING AND STORAGE

Storage

Store at moderate temperatures in dry, well ventilated area. Keep container tightly sealed when not in use.

Storage Class

Corrosive 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 general and local exhaust ventilation.

Respiratory Equipment

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

Hand Protection

Use protective gloves made of: Impermeable material.

Eye Protection

Wear tight-fitting goggles or face shield.

Other Protection

Provide eyewash station. Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene Measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes wet.

9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance</u>	Liquid
<u>Color</u>	Clear
<u>Odor</u>	Pungent.
<u>Solubility</u>	Slightly soluble in water.
<u>Vapor density (air=1)</u>	>1
<u>Evaporation rate</u>	<BuAc
<u>Flash point (°C)</u>	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. Avoid excessive heat for prolonged periods of time.

Materials To Avoid

Strong oxidizing substances. Strong reducing agents.

Hazardous Decomposition Products

In case of fire, toxic gases (CO, CO₂, NO_x) may be formed.

11. TOXICOLOGICAL INFORMATION

Toxicological Information on Ingredients:

Trimethyl-1, 6-Hexanediamine (CAS: 25513-64-8)

Toxic Dose 1 - LD 50

910 mg/kg (oral, rat)

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Acute Toxicity - Fish

Not available.

Degradability

No data available.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility:

The product has poor water-solubility.

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>	UN2327
<u>UN No. (IMDG)</u>	2327
<u>UN No. (ICAO)</u>	2327
<u>DOT Proper Shipping Name</u>	TRIMETHYLHEXAMETHYLENEDIAMINES
<u>TDG Proper Shipping Name</u>	TRIMETHYLHEXAMETHYLENEDIAMINES
<u>DOT Hazard Class</u>	
8	
<u>DOT Hazard Label</u>	
Corrosive	
<u>TDG Class</u>	8
<u>TDG Label(s)</u>	8
<u>IMDG Class</u>	8
<u>ICAO Class</u>	8
<u>Transport Labels</u>	



DOT Pack Group III

IMDG Pack Group III

Air Pack Group III

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

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

All 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

None of the ingredients are listed.

Korea - KECI

None of the ingredients are listed.

China - IECSC

All ingredients are listed or exempt.

Philippines – PICCS

None of the ingredients are listed.

16. OTHER INFORMATION

Revision Date 03/03/2015

Revision 1

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