



SAFETY DATA SHEET
EPO-TEK 431 Part A

1. IDENTIFICATION

<u>Product Name</u>	EPO-TEK 431 Part A
<u>Product No.</u>	EPO-TEK 431 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>	Brown.
<u>Odor</u>	Mild.
<u>GHS Pictogram</u>	



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

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
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.
P313	Get medical advice/attention.
P501	Dispose of contents/container in accordance with local regulations.

GHS Classification

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

Inhalation

Gas or vapor in high concentrations may irritate respiratory system.

Ingestion

May cause discomfort if swallowed.

Skin Contact

May cause sensitization by skin contact. Prolonged contact may cause redness, irritation and dry skin.

Eye Contact

Irritating to eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Epoxy Resin Blend	5-10%
CAS No.: Proprietary	EC No.: Proprietary
GHS Classification Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Skin Sens. 1 - H317; Aquatic Chronic 2 - H411	
Reactive Diluent	5-10%
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 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 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. Prolonged contact may cause redness, irritation and dry skin.

Eye Contact

Irritating and may cause redness and pain.

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. 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.

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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 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 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>	Brown.
<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>	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 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:

Reactive Diluent (CAS: Proprietary)

Toxic Dose 1 - LD 50

1, 540 mg/kg (oral, rat)

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

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

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<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)

The following ingredients are listed.

Copper; 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.

Copper

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.

Copper

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

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed.

Copper

Rhode Island "Right To Know" List

The following ingredients are listed.

Copper

Minnesota "Right To Know" List

The following ingredients are listed.

Copper

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New Jersey "Right To Know" List

The following ingredients are listed.

Copper

Pennsylvania "Right To Know" List

The following ingredients are listed.

Copper

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.

16. OTHER INFORMATION

<u>Revision Date</u>	03/27/2015
<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.



SAFETY DATA SHEET
EPO-TEK 431 Part B

1. IDENTIFICATION

<u>Product Name</u>	EPO-TEK 431 Part B
<u>Product No.</u>	EPO-TEK 431 Part B
<u>Identification No.</u>	UN3267
<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.
H314	Causes severe skin burns and eye damage.
H361d	CLP only - Suspected of damaging the unborn child.

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.
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	Acute Tox. 4 - H302;Skin Corr. 1B - H314;Repr. 2 - H361d
Environment	Not classified.

Human Health

Contains a substance/a group of substances which may cause harm to the unborn child.

Inhalation

Gas or vapor in high concentrations may irritate respiratory system.

Ingestion

Harmful if swallowed.

EPO-TEK 431 Part B

Skin Contact

Causes burns.

Eye Contact

Causes burns.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Imidazole	30-60%
CAS No.: 288-32-4	EC No.:
GHS Classification Acute Tox. 4 - H302; Skin Corr. 1B - H314; Repr. 2 - H361d	
Substituted Imidazole Blend	60-100%
CAS No.: Proprietary	EC No.: Proprietary
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

Notes To The Physician

Treat Symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point (°C) 93

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.

EPO-TEK 431 Part B

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 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. 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

<u>Appearance</u>	Liquid
<u>Color</u>	Amber.
<u>Odor</u>	Slight odor.
<u>Solubility</u>	Slightly soluble in water.
<u>Bulk Density</u>	1.02 kg/m ³
<u>Vapor density (air=1)</u>	>1
<u>Evaporation rate</u>	<BuAc
<u>Flash point (°C)</u>	93

10. STABILITY AND REACTIVITYReactivity

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, NO_x) may be formed.

11. TOXICOLOGICAL INFORMATIONReproductive 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 INFORMATIONEcotoxicity

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 CONSIDERATIONSDisposal Methods

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

14. TRANSPORT INFORMATION

EPO-TEK 431 Part B

<u>UN No. (DOT/TDG)</u>	UN3267
<u>UN No. (IMDG)</u>	3267
<u>UN No. (ICAO)</u>	3267
<u>DOT Proper Shipping Name</u>	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)
<u>TDG Proper Shipping Name</u>	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)
<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>	



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

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 03/27/2015

Revision 1

Disclaimer

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