

SAFETY DATA SHEET EPO-TEK N20E Part A

1. IDENTIFICATION

Product NameEPO-TEK N20E Part AProduct No.EPO-TEK N20E Part A

Identification No.UN3082Identified usesAdhesive.

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 Paste
Color Grey.
Odor Mild.

GHS Pictogram





Signal Word Warning

Hazard Statements

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

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.

<u>Contains</u> Epoxy Phenol Novolac

Nickel

GHS Classification

Physical and Chemical Hazards Not classified.

Human health Skin Irrit. 2 - H315;Eye Irrit. 2 - H319;Skin Sens. 1 - H317

Environment Aquatic Chronic 2 - H411

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. Irritating to skin.

Eye Contact

Irritating to eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Epoxy Phenol Novolac 30-60%

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

Nickel* 60-100%

CAS No.: 7440-02-0 EC No.:

GHS Classification

Skin Sens. 1 - H317; Carc. 2 - H351; Aquatic Chronic 3 - H412

*This product contains Nickel, which is suspected of causing cancer when inhaled in fine particulate form. Nickel should not be respirable in this formulation. However, if cured material will be ground, milled, etc., wear respiratory protection to avoid inhaling any dust that may be produced.

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

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

Irritating and may cause redness and pain.

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.

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. Provide good ventilation.

Storage

Nickel*

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

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
Nickel*	PEL		1 mg/m3			as Ni
Nickel*	ACGIH		1.5 mg/m3			A1, A4, A5, as Ni
COMPONENT						IDLH

10 mg/m3

ACGIH=American Conference of Governmental Industrial Hygienists

- A1: Confirmed Human Carcinogen.
- A4: Not Classifiable as a Human Carcinogen.
- A5: Not Suspected as a Human Carcinogen.

Protective Equipment





Process 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.

^{*}This product contains Nickel, which is suspected of causing cancer when inhaled in fine particulate form. Nickel should not be respirable in this formulation. However, if cured material will be ground, milled, etc., wear respiratory protection to avoid inhaling any dust that may be produced.

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

Appearance Paste
Color Grey.
Odor Mild.

Solubility Slightly soluble in water.

 Vapor density (air=1)
 >1

 Evaporation rate
 <BuAc</td>

 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 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:

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

Toxic Dose 1 - LD 50

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

Nickel (CAS: 7440-02-0)*

Carcinogenicity:

IARC Carcinogenicity

IARC Group 2B Possibly carcinogenic to humans.

NTP - Carcinogenicity

Reasonably anticipated to be a human carcinogen

OSHA - Carcinogenicity

Not listed.

*This product contains Nickel, which is suspected of causing cancer when inhaled in fine particulate form. Nickel should not be respirable in this formulation.

However, if cured material will be ground, milled, etc., wear respiratory protection to avoid inhaling any dust that may be produced.

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

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

 UN No. (DOT/TDG)
 UN3082

 UN No. (IMDG)
 3082

 UN No. (ICAO)
 3082

<u>DOT Proper Shipping Name</u> ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Phenol Novolac)

TDG Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Phenol Novolac)

DOT Hazard Class

9

DOT Hazard Label

Class 9 TDG Clas

 TDG Class
 9

 TDG Label(s)
 9

 IMDG Class
 9

 ICAO Class
 9

Transport Labels



 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.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed.

Nickel; 100 lbs (45.4 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

The following ingredients are listed.

Nickel

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.

Nickel

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

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed.

Nickel

Rhode Island "Right To Know" List

The following ingredients are listed.

Nickel

Minnesota "Right To Know" List

The following ingredients are listed.

Nickel

New Jersey "Right To Know" List

The following ingredients are listed.

Nicke

Pennsylvania "Right To Know" List

The following ingredients are listed.

Nickel

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

Revision Date 03/23/2015

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 N20E Part B

1. IDENTIFICATION

Product NameEPO-TEK N20E Part BProduct No.EPO-TEK N20E Part B

Identified uses Adhesive.

Supplier Epoxy Technology, Inc.

14 Fortune Drive Billerica, MA 01821

USA

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Emergency Telephone (800) 255-3924

2. HAZARD(S) IDENTIFICATION

Appearance Paste
Color Grey.
Odor Mild.

GHS Pictogram





Signal Word Danger

Hazard Statements

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.H318 Causes serious eye damage.

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.

P501 Dispose of contents/container in accordance with local regulations.

<u>Contains</u> Nickel

GHS Classification

Physical and Chemical Hazards Not classified.

Human health Acute Tox. 4 - H302; Eye Dam. 1 - H318; Skin Sens. 1 - H317

Environment Not classified.

Inhalation

Gas or vapor in high concentrations may irritate respiratory system.

Ingestion

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

Skin Contact

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

Eye Contact

Risk of serious damage to eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Nickel* 60-100%

CAS No.: 7440-02-0 EC No.:

GHS Classification

Skin Sens. 1 - H317; Carc. 2 - H351

Reactive Diluent 10-30%

CAS No.: Proprietary EC No.: Proprietary

GHS Classification

Acute Tox. 4 - H302; Eye Dam. 1 - H318; STOT SE 3 - H336

Substituted Imidazole 10-30%

CAS No.: Proprietary EC No.: Proprietary

GHS Classification

Acute Tox. 4 - H302; Skin Irrit. 2 - H315; Eye Dam. 1 - H318; STOT SE 3 - H335

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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.

Inaestior

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.

Eve 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 delayed

Inhalation

Inhalation of dusts during cutting, grinding or sanding of this product may cause irritation of the respiratory tract.

Ingestion

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

Skin Contact

Allergic rash. Prolonged contact may cause redness, irritation and dry skin.

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.

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.

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. Do not handle broken packages without protective equipment. Do not eat, drink or smoke when using the product. Observe good chemical hygiene practices. Provide good ventilation.

Storage

Nickel

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

COMPONENT	STD	TWA	TWA (8-hrs)		STEL (15 min)	
Nickel	PEL		1 mg/m3			as Ni
Nickel	ACGIH		1.5 mg/m3			A1, A4, A5, as Ni
COMPONENT						IDLH

10 mg/m3

ACGIH=American Conference of Governmental Industrial Hygienists.

- A1: Confirmed Human Carcinogen.
- A4: Not Classifiable as a Human Carcinogen.
- A5: Not Suspected as a Human Carcinogen.

*This product contains Nickel, which is suspected of causing cancer when inhaled in fine particulate form. Nickel should not be respirable in this formulation. However, if cured material will be ground, milled, etc., wear respiratory protection to avoid inhaling any dust that may be produced.

Protective Equipment





Process 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.

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 Grey.
Odor Mild.

Solubility Slightly soluble in water.

 Vapor density (air=1)
 >1

 Evaporation rate
 <BuAc</td>

 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 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:

Nickel (CAS: 7440-02-0)*

Carcinogenicity:

IARC Carcinogenicity

IARC Group 2B Possibly carcinogenic to humans.

NTP - Carcinogenicity

Reasonably anticipated to be a human carcinogen

OSHA - Carcinogenicity

Not listed.

Reactive Diluent (CAS: Proprietary)

Toxic Dose 1 - LD 50

1, 540 mg/kg (oral, rat)

*This product contains Nickel, which is suspected of causing cancer when inhaled in fine particulate form. Nickel should not be respirable in this formulation. However, if cured material will be ground, milled, etc., wear respiratory protection to avoid inhaling any dust that may be produced.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Not regarded as dangerous for the 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

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.

Nickel; 100 lbs (45.4 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

The following ingredients are listed.

Nicke

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.

Nickel

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

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed.

Nickel

Rhode Island "Right To Know" List

The following ingredients are listed.

Nickel

Minnesota "Right To Know" List

The following ingredients are listed.

Nickel

New Jersey "Right To Know" List

The following ingredients are listed.

Nickel

Pennsylvania "Right To Know" List

The following ingredients are listed.

Nickel

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

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

03/23/2015

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.