



SAFETY DATA SHEET EPO-TEK® H20E Part A

1. Identification

Product identifier

Product name EPO-TEK® H20E Part A
Product number H20E/A

Recommended use of the chemical and restrictions on use

Application Adhesive.

Details of the supplier of the safety data sheet

Supplier Epoxy Technology, Inc.
14 Fortune Drive
Billerica, MA 01821
USA
(978) 667-3805
(978) 663-9782
www.epotek.com, SDS@epotek.com

Emergency telephone number

Emergency telephone +1 (800) 255-3924, +1 (813) 248-0585

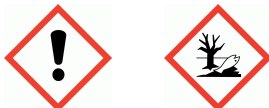
2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317
Environmental hazards Aquatic Chronic 2 - H411

Label elements

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 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/ container in accordance with national regulations.

EPO-TEK® H20E Part A

Contains Epoxy Phenol Novolac

Other hazards

Harmful dust may be released during cutting or grinding process.

Hazards not otherwise classified (HNOC) Contains epoxy constituents. May produce an allergic reaction.

3. Composition/information on ingredients

Mixtures

Silver	60-100%
CAS number: 7440-22-4	

Classification Aquatic Chronic 2 - H411

Epoxy Phenol Novolac	30-60%
CAS number: 9003-36-5	

Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
Skin Contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. 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	Causes skin irritation. May cause sensitisation by skin contact.
Eye contact	Causes serious eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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5. Fire-fighting measures

EPO-TEK® H20E Part A

Extinguishing media

Suitable extinguishing media Extinguish with the following media: Dry chemicals. Foam. Water spray.

Special hazards arising from the substance or mixture

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

Advice for firefighters

Protective actions during firefighting Avoid breathing fire gases or vapors. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions

Environmental precautions Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground.

Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

Reference to other sections For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product. Provide adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage precautions Store at room temperature. Keep container tightly sealed when not in use.

Storage class Chemical storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

Silver

Long-term exposure limit (8-hour TWA): 0.1

Exposure controls

EPO-TEK® H20E Part A

Protective equipment



Appropriate engineering controls	Provide adequate general and local exhaust ventilation.
Eye/face protection	Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	It is recommended that chemical-resistant, impervious gloves are worn.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Provide eyewash station. Do not smoke in work area. Wash 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.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Paste.
Color	Silver.
Odor	Mild.
Flash point	> 93°C
Evaporation rate	<BuAc
Solubility(ies)	Insoluble in water.
Other information	None.

10. Stability and reactivity

Reactivity	The following materials may react violently with the product: Strong oxidizing agents.
Stability	Stable at normal ambient temperatures.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Avoid contact with strong oxidizing agents. Avoid heat, flames and other sources of ignition.
Materials to avoid	Strong oxidizing agents.
Hazardous decomposition products	Fire creates: Carbon monoxide (CO). Carbon dioxide (CO ₂).

11. Toxicological information

Information on toxicological effects

EPO-TEK® H20E Part A

Inhalation	Inhalation of dust during cutting, grinding or sanding operations involving this product may cause irritation of the respiratory tract. Gas or vapor in high concentrations may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin Contact	May cause sensitisation by skin contact. Irritating to skin.
Eye contact	Causes serious eye irritation.

12. Ecological Information

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Acute toxicity - fish	Not available.
<u>Persistence and degradability</u>	
Persistence and degradability	The product is biodegradable.
<u>Bioaccumulative potential</u>	
Bio-Accumulative Potential	The product contains potentially bioaccumulating substances.
<u>Mobility in soil</u>	
Mobility	Mobile.
<u>Other adverse effects</u>	
Other adverse effects	Not known.

13. Disposal considerations

Waste treatment methods

Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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14. Transport information

UN Number

UN No. (TDG)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (DOT)	UN3082

UN proper shipping name

Proper shipping name (TDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Silver, Epoxy Phenol Novolac)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Silver, Epoxy Phenol Novolac)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Silver, Epoxy Phenol Novolac)
Proper shipping name (DOT)	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS Silver, Epoxy Phenol Novolac)

Transport hazard class(es)

EPO-TEK® H20E Part A

DOT hazard class	9
DOT hazard label	9
TDG class	9
TDG label(s)	9
IMDG Class	9
ICAO class/division	9

Transport labels



DOT transport labels



Packing group

TDG Packing Group	III
IMDG packing group	III
ICAO packing group	III
DOT packing group	III

Environmental hazards

Environmentally Hazardous Substance



Special precautions for user

EmS F-A, S-F

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

Regulatory References Proprietary information protected pursuant to WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Section 7, Art. 39.

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:

Silver

1,000 lbs (454 Kg)

EPO-TEK® H20E Part A

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

The following ingredients are listed:

Silver

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:

Silver

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

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed:

Silver

Rhode Island "Right To Know" List

The following ingredients are listed:

Silver

Minnesota "Right To Know" List

The following ingredients are listed:

Silver

New Jersey "Right To Know" List

The following ingredients are listed:

Silver

Pennsylvania "Right To Know" List

The following ingredients are listed:

Silver

Inventories

EU - EINECS/ELINCS

Some of the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

EPO-TEK® H20E Part A

US - TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

All the ingredients are listed or exempt.

Japan - MITI

Some of the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines - PICCS

All the ingredients are listed or exempt.

16. Other information

Revision date	8/15/2017
Revision	3
Supersedes date	10/24/2014
Hazard statements in full	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.

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® H20E Part B

1. Identification

Product identifier

Product name EPO-TEK® H20E Part B

Product number H20E/B

Recommended use of the chemical and restrictions on use

Application Adhesive.

Details of the supplier of the safety data sheet

Supplier Epoxy Technology, Inc.
14 Fortune Drive
Billerica, MA 01821
USA
(978) 667-3805
(978) 663-9782
www.epotek.com, SDS@epotek.com

Emergency telephone number

Emergency telephone +1 (800) 255-3924, +1 (813) 248-0585

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Eye Dam. 1 - H318

Environmental hazards Aquatic Chronic 2 - H411

Label elements

Pictogram



Signal word Danger

Hazard statements H318 Causes serious eye damage.
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+P351+P338 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/ doctor.
P391 Collect spillage.
P501 Dispose of contents/ container in accordance with national regulations.

Contains Reactive Diluent, Substituted Imidazole

EPO-TEK® H20E Part B

Other hazards

Harmful dust may be released during cutting or grinding process.

3. Composition/information on ingredients

Mixtures

Silver	60-100%
CAS number: 7440-22-4	

Classification

Aquatic Chronic 2 - H411

Reactive Diluent

10-30%

CAS number: Proprietary

Classification

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

Substituted Imidazole

5-10%

CAS number: Proprietary

Classification

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

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation

Move affected person to fresh air at once. Get medical attention. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

Ingestion

Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not induce vomiting. Remove affected person from source of contamination. Give plenty of water to drink. Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact

Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. 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

Inhalation

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

EPO-TEK® H20E Part B

Ingestion	May cause discomfort if swallowed.
Skin contact	May be slightly irritating to skin.
Eye contact	Severe irritation, burning and tearing. Corneal damage.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with the following media: Dry chemicals. Foam. Water spray, fog or mist.

Special hazards arising from the substance or mixture

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

Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes and clothing. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions

Environmental precautions Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for cleaning up Collect and place in suitable waste disposal containers and seal securely.

Reference to other sections For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Do not eat, drink or smoke when using the product.

Conditions for safe storage, including any incompatibilities

Storage precautions Store at room temperature. Keep container tightly sealed when not in use.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

Silver

EPO-TEK® H20E Part B

Long-term exposure limit (8-hour TWA): ACGIH 0.1 mg/m³

Short-term exposure limit (15-minute): ACGIH

ACGIH = American Conference of Governmental Industrial Hygienists.

Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

It is recommended that chemical-resistant, impervious gloves are worn.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

Do not smoke in work area. Wash 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 and water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Paste.
Color	Silver.
Odor	Slight.
Flash point	> 93°C
Evaporation rate	< BuAc
Other information	None.

10. Stability and reactivity

Reactivity	The following materials may react violently with the product: Acids. Alkalis. Strong reducing agents. Strong oxidizing agents.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
Materials to avoid	Strong acids. Strong alkalis. Strong oxidizing agents. Strong reducing agents.
Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO ₂).

EPO-TEK® H20E Part B

11. Toxicological information

Information on toxicological effects

Inhalation	Inhalation of dust during cutting, grinding or sanding operations involving this product may cause irritation of the respiratory tract. Gas or vapor in high concentrations may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin Contact	May be slightly irritating to skin.
Eye contact	Causes serious eye damage.

12. Ecological Information

Ecotoxicity	The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
Acute toxicity - fish	Not available.
<u>Persistence and degradability</u>	
Persistence and degradability	The product is moderately biodegradable.
<u>Bioaccumulative potential</u>	
Bio-Accumulative Potential	No data available on bioaccumulation.
<u>Mobility in soil</u>	
Mobility	Semi-mobile.
<u>Other adverse effects</u>	
Other adverse effects	Not known.

13. Disposal considerations

Waste treatment methods

Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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14. Transport information

UN Number

UN No. (TDG)	UN3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (DOT)	UN3082

UN proper shipping name

Proper shipping name (TDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)

EPO-TEK® H20E Part B

Proper shipping name (DOT) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)

Transport hazard class(es)

TDG class	9
TDG label(s)	9
IMDG Class	9
ICAO class/division	9

Transport labels



Packing group

TDG Packing Group	III
IMDG packing group	III
ICAO packing group	III
DOT packing group	III

Environmental hazards

Environmentally Hazardous Substance



Special precautions for user

EmS F-A, S-F

15. Regulatory information

Regulatory References Proprietary information protected pursuant to WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Section 7, Art. 39.

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:

Silver

1,000 lbs (454 Kg)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

The following ingredients are listed:

Silver

EPO-TEK® H20E Part B

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:

Silver

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

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed:

Silver

Rhode Island "Right To Know" List

The following ingredients are listed:

Silver

Minnesota "Right To Know" List

The following ingredients are listed:

Silver

New Jersey "Right To Know" List

The following ingredients are listed:

Silver

Pennsylvania "Right To Know" List

The following ingredients are listed:

Silver

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

All the ingredients are listed or exempt.

EPO-TEK® H20E Part B

Japan - MITI

Some of the ingredients are listed or exempt.

Korea - KECI

All the ingredients are listed or exempt.

China - IECSC

All the ingredients are listed or exempt.

Philippines - PICCS

All the ingredients are listed or exempt.

16. Other information

Revision date	8/15/2017
Revision	3
Supersedes date	10/24/2014
Hazard statements in full	H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.

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.