



## SAFETY DATA SHEET EPO-TEK® H31

### 1. Identification

#### Product identifier

**Product name** EPO-TEK® H31

**Product number** H31

#### Recommended use of the chemical and restrictions on use

**Application** Adhesive.

**Uses advised against** Use only for intended applications.

#### 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** ChemTel: +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 Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351

**Environmental hazards** Aquatic Chronic 2 - H411

**Human health** Contains a substance which may cause genetic defects. Contains a substance which may be potentially carcinogenic.

#### Label elements

##### Hazard symbols



**Signal word**

Danger

##### Hazard statements

H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H317 May cause an allergic skin reaction.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H411 Toxic to aquatic life with long lasting effects.

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**Precautionary statements**

P261 Avoid breathing vapor/ spray.  
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.  
P501 Dispose of contents/ container in accordance with national regulations.

**Contains** Resorcinol Diglycidyl Ether, Substituted Amine, Reactive Diluent

**Other hazards**

Harmful dust may be released during cutting or grinding process.

**3. Composition/information on ingredients****Mixtures**

<b>Silver</b>	<b>60-100%</b>
CAS number: 7440-22-4	
<b>Classification</b> Aquatic Chronic 2 - H411	
<b>Resorcinol Diglycidyl Ether</b>	<b>10-30%</b>
CAS number: 101-90-6	
<b>Classification</b> Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351	
<b>Substituted Amine</b>	<b>1-5%</b>
CAS number: Proprietary	
<b>Classification</b> Skin Irrit. 2 - H315 Eye Dam. 1 - H318	
<b>Reactive Diluent</b>	<b>1-5%</b>
CAS number: Proprietary	
<b>Classification</b> Acute Tox. 4 - H302 Eye Dam. 1 - H318 STOT SE 3 - H336	

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

**4. First-aid measures**

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### Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
<b>Ingestion</b>	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.
<b>Skin Contact</b>	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	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

<b>General information</b>	Suspected of causing cancer. Suspected of causing genetic defects.
<b>Inhalation</b>	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.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction. May cause sensitisation by skin contact.
<b>Eye contact</b>	Causes serious eye damage.

### Indication of immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Treat symptomatically.
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### **5. Fire-fighting measures**

#### Extinguishing media

**Suitable extinguishing 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.

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

#### 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.

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

### 7. Handling and storage

#### Precautions for safe handling

**Usage precautions** Handle all packages and containers carefully to minimize spills. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

**Advice on general occupational hygiene** Do not eat, drink or smoke when using this product. Wash promptly with soap and water if skin becomes contaminated. Wash after use and before eating, smoking and using the toilet. Wash contaminated clothing before reuse. Use appropriate skin cream to prevent drying of skin.

#### Conditions for safe storage, including any incompatibilities

**Storage precautions** Store at -40°C. 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): ACGIH 0.1 mg/m<sup>3</sup>

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. 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.

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<b>Odor</b>	Mild.
<b>Odor threshold</b>	No specific test data are available.
<b>pH</b>	No specific test data are available.
<b>Melting point</b>	No specific test data are available.
<b>Initial boiling point and range</b>	No specific test data are available.
<b>Flash point</b>	> 93°C
<b>Evaporation rate</b>	<BuAc
<b>Flammability (solid, gas)</b>	No specific test data are available.
<b>Upper/lower flammability or explosive limits</b>	No specific test data are available.
<b>Vapor pressure</b>	No specific test data are available.
<b>Vapor density</b>	>1
<b>Relative density</b>	No specific test data are available.
<b>Solubility(ies)</b>	Slightly soluble in water.
<b>Partition coefficient</b>	No specific test data are available.
<b>Auto-ignition temperature</b>	No specific test data are available.
<b>Decomposition Temperature</b>	No specific test data are available.
<b>Viscosity</b>	No specific test data are available.
<b>Other information</b>	None.

**10. Stability and reactivity**

<b>Reactivity</b>	The following materials may react violently with the product: Strong oxidizing agents. Strong reducing agents.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	May polymerize.
<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time. Avoid heat, flames and other sources of ignition.
<b>Materials to avoid</b>	Strong oxidizing agents. Strong reducing agents.
<b>Hazardous decomposition products</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

**11. Toxicological information****Information on toxicological effects****Acute toxicity - oral**

ATE oral (mg/kg) 2,417.79

**Acute toxicity - dermal**

ATE dermal (mg/kg) 5,765.2

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<b>Inhalation</b>	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.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin Contact</b>	Irritating to skin. May cause an allergic skin reaction. May cause sensitisation by skin contact.
<b>Eye contact</b>	Causes serious eye damage.
<b>Acute and chronic health hazards</b>	Suspected of causing cancer. Suspected of causing genetic defects.

**Toxicological information on ingredients.****Resorcinol Diglycidyl Ether****Carcinogenicity**

<b>IARC carcinogenicity</b>	IARC Group 2B Possibly carcinogenic to humans.
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<b>NTP carcinogenicity</b>	Reasonably anticipated to be a human carcinogen.
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**12. Ecological information**

<b>Ecotoxicity</b>	The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
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**Acute aquatic toxicity**

<b>Acute toxicity - fish</b>	Not available.
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**Persistence and degradability**

<b>Persistence and degradability</b>	The product is moderately biodegradable.
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**Bioaccumulative potential**

<b>Bio-Accumulative Potential</b>	The product contains potentially bioaccumulating substances.
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<b>Partition coefficient</b>	No specific test data are available.
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**Mobility in soil**

<b>Mobility</b>	Semi-mobile.
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**Other adverse effects**

<b>Other adverse effects</b>	Not known.
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**13. Disposal considerations****Waste treatment methods**

<b>Disposal methods</b>	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**

<b>UN No. (TDG)</b>	3082
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<b>UN No. (IMDG)</b>	3082
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<b>UN No. (ICAO)</b>	3082
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**EPO-TEK® H31**

UN No. (DOT) UN3082

**UN proper shipping name**

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

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

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

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

**Transport hazard class(es)**

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**

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### 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*

*Resorcinol Diglycidyl Ether*

#### **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**



This product can expose you to chemicals including those listed below, which is [are] known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

*Resorcinol Diglycidyl Ether*

#### **California Air Toxics "Hot Spots" (A-I)**

The following ingredients are listed:

*Silver*

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

The following ingredients are listed:

*Resorcinol Diglycidyl Ether*

#### **Massachusetts "Right To Know" List**

The following ingredients are listed:

*Silver*

*Resorcinol Diglycidyl Ether*

#### **Rhode Island "Right To Know" List**

The following ingredients are listed:

*Silver*



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### Minnesota "Right To Know" List

The following ingredients are listed:

*Silver*

*Resorcinol Diglycidyl Ether*

### New Jersey "Right To Know" List

The following ingredients are listed:

*Silver*

*Resorcinol Diglycidyl Ether*

### Pennsylvania "Right To Know" List

The following ingredients are listed:

*Silver*

*Resorcinol Diglycidyl Ether*

### 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 or exempt.

#### Australia - AICS

All the ingredients are listed or exempt.

#### Japan - ENCS

Some of the ingredients are listed or exempt.

#### Korea - KECI

Some of the ingredients are listed or exempt.

#### China - IECSC

All the ingredients are listed or exempt.

#### Philippines - PICCS

Some of the ingredients are listed or exempt.

### 16. Other information

Revision date	11/5/2019
Revision	3
Supersedes date	7/28/2016

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### Hazard statements in full

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H411 Toxic to aquatic life with long lasting effects.

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