



## SAFETY DATA SHEET

### EPO-TEK H20S-P PMF Syringe

#### 1. Identification

##### Product identifier

**Product name** EPO-TEK H20S-P PMF Syringe

**Product number** H20S-P

##### 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 Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Muta. 2 - H341

**Environmental hazards** Aquatic Chronic 2 - H411

##### Label elements

##### Pictogram



**Signal word**

Danger

##### Hazard statements

H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H341 Suspected of causing genetic defects.  
 H411 Toxic to aquatic life with long lasting effects.

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**Precautionary statements**

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P302+P352 If on skin: Wash with plenty of water.  
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P342+P311 If experiencing respiratory symptoms: Call a poison center/ doctor.  
 P501 Dispose of contents/ container in accordance with national regulations.

**Contains** Silver, Bisphenol A Diglycidyl Ether Resin, Reactive Diluent, Substituted Imidazole, Reactive Diluent

### Other hazards

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

### 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>Bisphenol A Diglycidyl Ether Resin</b> | <b>10-30%</b>  |
| CAS number: 25085-99-8                    |                |
| <b>Classification</b>                     |                |
| Skin Irrit. 2 - H315                      |                |
| Eye Irrit. 2 - H319                       |                |
| Skin Sens. 1 - H317                       |                |
| Aquatic Chronic 2 - H411                  |                |
| <b>Reactive Diluent</b>                   | <b>5-10%</b>   |
| CAS number: Proprietary                   |                |
| <b>Classification</b>                     |                |
| Acute Tox. 4 - H302                       |                |
| Eye Dam. 1 - H318                         |                |
| STOT SE 3 - H336                          |                |
| <b>Substituted Imidazole</b>              | <b>1-5%</b>    |
| CAS number: Proprietary                   |                |
| <b>Classification</b>                     |                |
| Acute Tox. 4 - H302                       |                |
| Skin Irrit. 2 - H315                      |                |
| Eye Dam. 1 - H318                         |                |
| STOT SE 3 - H335                          |                |

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|                         |             |
|-------------------------|-------------|
| <b>Reactive Diluent</b> | <b>1-5%</b> |
| CAS number: Proprietary |             |
| <b>Classification</b>   |             |
| Skin Irrit. 2 - H315    |             |
| Eye Irrit. 2 - H319     |             |
| Resp. Sens. 1 - H334    |             |
| Skin Sens. 1 - H317     |             |
| Muta. 2 - H341          |             |

The Full Text for all Hazard Statements are Displayed in Section 16.

### 4. First-aid measures

#### Description of first aid measures

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if symptoms are severe or persist. Place unconscious person on their side in the recovery position and ensure breathing can take place. Never give anything by mouth to an unconscious person. |
| <b>Ingestion</b>    | Remove affected person from source of contamination. Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms are severe or persist.   |
| <b>Skin Contact</b> | Remove contaminated clothing immediately and wash skin with soap and water. Do not use organic solvents. Get medical attention if symptoms are severe or persist after washing.  |
| <b>Eye contact</b>  | Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.   |

#### Most important symptoms and effects, both acute and delayed

|                            |  |
|----------------------------|--|
| <b>General information</b> | Suspected of causing genetic defects.                                      |
| <b>Inhalation</b>          | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| <b>Ingestion</b>           | May cause discomfort if swallowed.   |
| <b>Skin contact</b>        | Causes skin irritation. 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. |
|-----------------------------|------------------------|

### 5. Fire-fighting measures

#### Extinguishing media

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| <b>Suitable extinguishing media</b> | Dry chemicals. Foam. Water spray. |
|-------------------------------------|-----------------------------------|

#### Special hazards arising from the substance or mixture

|                                      |   |
|--------------------------------------|---|
| <b>Hazardous combustion products</b> | Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). |
|--------------------------------------|---|

#### Advice for firefighters

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|  |   |
|--|---|
| <b>Protective actions during firefighting</b>        | 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. |
| <b>Special protective equipment for firefighters</b> | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.   |

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

|                             |   |
|-----------------------------|---|
| <b>Personal precautions</b> | Wear protective clothing as described in Section 8 of this safety data sheet. Keep unnecessary and unprotected personnel away from the spillage. Avoid inhalation of vapors and contact with skin and eyes. Use suitable respiratory protection if ventilation is inadequate. |
|-----------------------------|---|

#### Environmental precautions

|                                  |   |
|----------------------------------|---|
| <b>Environmental precautions</b> | Avoid discharge to the aquatic environment. |
|----------------------------------|---|

#### Methods and material for containment and cleaning up

|                                |   |
|--------------------------------|---|
| <b>Methods for cleaning up</b> | Stop leak if safe to do so. Eliminate all sources of ignition. Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. |
|--------------------------------|---|

|                                    |   |
|------------------------------------|---|
| <b>Reference to other sections</b> | For personal protection, see Section 8. |
|------------------------------------|---|

### 7. Handling and storage

#### Precautions for safe handling

|                          |   |
|--------------------------|---|
| <b>Usage precautions</b> | Handle all packages and containers carefully to minimize spills. Avoid inhalation of vapors and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. |
|--------------------------|---|

|   |   |
|---|---|
| <b>Advice on general occupational hygiene</b> | Provide eyewash station. 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

|                            |  |
|----------------------------|--|
| <b>Storage precautions</b> | Store at -40 degrees C. Keep container tightly sealed when not in use. |
|----------------------------|--|

#### Specific end uses(s)

|                            |   |
|----------------------------|---|
| <b>Specific end use(s)</b> | The identified uses for this product are detailed in Section 1.2. |
|----------------------------|---|

### 8. Exposure Controls/personal protection

#### Control parameters

#### Occupational exposure limits

##### Silver

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

#### Exposure controls

##### Protective equipment



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|   |   |
|---|---|
| <b>Appropriate engineering controls</b> | Provide adequate general and local exhaust ventilation.   |
| <b>Eye/face protection</b>              | Wear tight-fitting, chemical splash goggles or face shield.   |
| <b>Hand protection</b>                  | It is recommended that chemical-resistant, impervious gloves are worn.  |
| <b>Other skin and body protection</b>   | Wear appropriate clothing to prevent any possibility of skin contact.   |
| <b>Hygiene measures</b>                 | Provide eyewash station. 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. |
| <b>Respiratory protection</b>           | If ventilation is inadequate, suitable respiratory protection must be worn.   |

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

|                          |                            |
|--------------------------|----------------------------|
| <b>Appearance</b>        | Paste.                     |
| <b>Color</b>             | Silver.                    |
| <b>Flash point</b>       | > 93°C                     |
| <b>Evaporation rate</b>  | < BuAc                     |
| <b>Solubility(ies)</b>   | Slightly soluble in water. |
| <b>Other information</b> | None.                      |

### 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | The following materials may react with the product: Acids. Alkalis. Oxidizing agents. 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.   |
| <b>Materials to avoid</b>                 | Acids. Alkalis. Oxidizing agents. Reducing agents.  |
| <b>Hazardous decomposition products</b>   | Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). |

### 11. Toxicological information

#### Information on toxicological effects

|                     |  |
|---------------------|--|
| <b>Inhalation</b>   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| <b>Ingestion</b>    | May cause discomfort if swallowed.   |
| <b>Skin Contact</b> | Causes skin irritation. May cause sensitisation by skin contact.           |

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|   |                                       |
|---|---------------------------------------|
| <b>Eye contact</b>                      | Causes serious eye damage.            |
| <b>Acute and chronic health hazards</b> | Suspected of causing genetic defects. |

### 12. Ecological Information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

#### Toxicity

**Acute toxicity - fish** Not available.

#### Persistence and degradability

**Persistence and degradability** No data available.

#### Bioaccumulative potential

**Bio-Accumulative Potential** No data available on bioaccumulation.

#### Mobility in soil

**Mobility** No data available.

#### Other adverse effects

**Other adverse effects** Not known.

### 13. Disposal considerations

#### Waste treatment methods

**General information** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

### 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, Bisphenol A Diglycidyl Ether Resin)

**Proper shipping name (IMDG)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Silver, Bisphenol A Diglycidyl Ether Resin)

**Proper shipping name (ICAO)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Silver, Bisphenol A Diglycidyl Ether Resin)

**Proper shipping name (DOT)** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS Silver, Bisphenol A Diglycidyl Ether Resin)

#### Transport hazard class(es)

**DOT hazard class** 9

**DOT hazard label** 9

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|                     |   |
|---------------------|---|
| 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 required to be listed.

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

The following ingredients are listed or exempt:

*Silver*

1,000 lbs (454 Kg)

#### **SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

None of the ingredients are required to be listed.

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### **SARA 313 Emission Reporting**

The following ingredients are listed or exempt:

*Silver*

### **CAA Accidental Release Prevention**

None of the ingredients are required to be listed.

### **OSHA Highly Hazardous Chemicals**

None of the ingredients are required to be listed.

### **US State Regulations**

#### **California Proposition 65 Carcinogens and Reproductive Toxins**

None of the ingredients are required to be listed.

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

The following ingredients are listed or exempt:

*Silver*

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

None of the ingredients are required to be listed.

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

The following ingredients are listed or exempt:

*Silver*

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

The following ingredients are listed or exempt:

*Silver*

#### **Minnesota "Right To Know" List**

The following ingredients are listed or exempt:

*Silver*

#### **New Jersey "Right To Know" List**

The following ingredients are listed or exempt:

*Silver*

#### **Pennsylvania "Right To Know" List**

The following ingredients are listed or exempt:

*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.

#### **US - TSCA 12(b) Export Notification**

None of the ingredients are listed or exempt.



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### 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

|                                  |   |
|----------------------------------|---|
| <b>Revision date</b>             | 7/22/2016   |
| <b>Revision</b>                  | 1   |
| <b>Hazard statements in full</b> | <p>H302 Harmful if swallowed.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>H341 Suspected of causing genetic defects.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p> |

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