

## SECTION 1: Identification

### 1.1. Identification

Product form : Mixture  
Product name : EPO-TEK® H72 PMF SYRINGE

### 1.2. Recommended use and restrictions on use

Use of the substance/mixture : adhesives  
Recommended use : adhesives  
Restrictions on use : Not to be used for any purpose other than the one the product was designed for

### 1.3. Supplier

Epoxy Technology, Inc.  
14 Fortune Drive  
Billerica, MA, 01821  
USA  
T 978-667-3805  
[www.epotek.com](http://www.epotek.com)

### 1.4. Emergency telephone number

Emergency number : ChemTel: +1 (800) 255-3924, +1 (813) 248-0585

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS US classification

|  |      |   |
|--|------|---|
| Acute toxicity (dermal) Category 4                               | H312 | Harmful in contact with skin                      |
| Skin corrosion/irritation Category 2                             | H315 | Causes skin irritation                            |
| Serious eye damage/eye irritation Category 1                     | H318 | Causes serious eye damage                         |
| Skin sensitization, Category 1                                   | H317 | May cause an allergic skin reaction               |
| Germ cell mutagenicity Category 2                                | H341 | Suspected of causing genetic defects              |
| Carcinogenicity Category 1B                                      | H350 | May cause cancer                                  |
| Reproductive toxicity Category 1B                                | H360 | May damage fertility or the unborn child          |
| Hazardous to the aquatic environment – Acute Hazard Category 3   | H402 | Harmful to aquatic life                           |
| Hazardous to the aquatic environment – Chronic Hazard Category 3 | H412 | Harmful to aquatic life with long lasting effects |

Full text of H statements : see section 16

### 2.2. GHS Label elements, including precautionary statements

#### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H312 - Harmful in contact with skin  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H341 - Suspected of causing genetic defects  
H350 - May cause cancer

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

|                                   |   |
|-----------------------------------|---|
| Precautionary statements (GHS US) | :<br>H360 - May damage fertility or the unborn child<br>H402 - Harmful to aquatic life<br>H412 - Harmful to aquatic life with long lasting effects<br>P201 - Obtain special instructions before use.<br>P202 - Do not handle until all safety precautions have been read and understood.<br>P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.<br>P264 - Wash hands, forearms and face thoroughly after handling.<br>P272 - Contaminated work clothing must not be allowed out of the workplace.<br>P273 - Avoid release to the environment.<br>P280 - Wear protective gloves/protective clothing/eye protection/face protection.<br>P302+P352 - If on skin: Wash with plenty of water.<br>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P308+P313 - If exposed or concerned: Get medical advice/attention.<br>P310 - Immediately call a poison center or doctor.<br>P312 - Call a poison center or doctor if you feel unwell.<br>P321 - Specific treatment (see supplemental first aid instruction on this label).<br>P322 - Specific treatment (see supplemental first aid instruction on this label)<br>P332+P313 - If skin irritation occurs: Get medical advice/attention.<br>P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.<br>P362+P364 - Take off contaminated clothing and wash it before reuse.<br>P363 - Wash contaminated clothing before reuse.<br>P405 - Store locked up.<br>P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |
|-----------------------------------|---|

### 2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Harmful dust may be released during cutting, milling or grinding process.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name                                | Product identifier    | %       | GHS US classification   |
|-------------------------------------|-----------------------|---------|---|
| Resorcinal diglycidyl ether         | CAS-No.: 101-90-6     | 10 – 30 | Acute Tox. 4 (Oral), H302<br>Acute Tox. 3 (Dermal), H311<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Muta. 2, H341<br>Carc. 1B, H350<br>Aquatic Chronic 3, H412 |
| Bisphenol A diglycidyl ether resin* | CAS-No.: Trade Secret | 1 – 10  | Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319<br>Skin Sens. 1, H317<br>Aquatic Acute 2, H401<br>Aquatic Chronic 2, H411  |

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Name                   | Product identifier    | %     | GHS US classification  |
|------------------------|-----------------------|-------|--|
| Epoxy resin*           | CAS-No.: Trade Secret | 1 – 5 | Eye Irrit. 2, H319<br>Skin Sens. 1, H317   |
| Substituted imidazole* | CAS-No.: Trade Secret | 1 – 5 | Acute Tox. 4 (Oral), H302<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Skin Sens. 1B, H317                          |
| Imidazole              | CAS-No.: 288-32-4     | ≥ 1   | Acute Tox. 4 (Oral), H302<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Repr. 1B, H360                               |
| Substituted imidazole* | CAS-No.: Trade Secret | < 1   | Acute Tox. 4 (Oral), H302<br>Acute Tox. 3 (Dermal), H311<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Carc. 2, H351 |

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Comments : Components not listed are either non-hazardous or are below reportable limits.

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

|                                       |  |
|---------------------------------------|--|
| First-aid measures general            | : IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor/physician if you feel unwell.                                   |
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing.   |
| First-aid measures after skin contact | : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.                   |
| First-aid measures after eye contact  | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. |
| First-aid measures after ingestion    | : Call a poison center/doctor/physician if you feel unwell.  |

### 4.2. Most important symptoms and effects (acute and delayed)

|                                     |  |
|-------------------------------------|--|
| Symptoms/effects after skin contact | : Irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact  | : Serious damage to eyes.                          |

### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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

For containment : Collect spillage.  
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Do not get in eyes, on skin, or on clothing. Avoid breathing dust/fume/gas/mist/vapors/spray.  
Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### EPO-TEK® H72 PMF SYRINGE

No additional information available

##### Substituted imidazole

No additional information available

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Substituted imidazole

No additional information available

### Imidazole (288-32-4)

No additional information available

### Epoxy resin

#### USA - ACGIH - Occupational Exposure Limits

|               |   |
|---------------|---|
| ACGIH OEL TWA | 3 mg/m <sup>3</sup> (Respirable fraction) |
|---------------|---|

### Bisphenol A diglycidyl ether resin

No additional information available

### Resorcinal diglycidyl ether (101-90-6)

No additional information available

## 8.2. Appropriate engineering controls

|                                  |  |
|----------------------------------|--|
| Appropriate engineering controls | : Ensure good ventilation of the work station. |
| Environmental exposure controls  | : Avoid release to the environment.            |

## 8.3. Individual protection measures/Personal protective equipment

### Hand protection:

Wear suitable gloves resistant to chemical penetration. Neoprene or nitrile rubber gloves. Butyl-rubber protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Refer to manufacturer's information. Gloves must be replaced after each use and whenever signs of wear or perforation appear

### Eye protection:

Safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Wear respiratory protection.

### Personal protective equipment symbol(s):



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                |                     |
|----------------|---------------------|
| Physical state | : Liquid            |
| Color          | : Gray              |
| Odor           | : Mild odor         |
| Odor threshold | : No data available |
| pH             | : No data available |
| Melting point  | : Not applicable    |

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

|   |                     |
|---|---------------------|
| Freezing point                                  | : No data available |
| Boiling point                                   | : No data available |
| Flash point                                     | : No data available |
| Relative evaporation rate (butyl acetate=1)     | : No data available |
| Flammability (solid, gas)                       | : Not applicable.   |
| Vapor pressure                                  | : No data available |
| Relative vapor density at 20 °C                 | : No data available |
| Relative density                                | : No data available |
| Solubility                                      | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature                       | : No data available |
| Decomposition temperature                       | : No data available |
| Viscosity, kinematic                            | : No data available |
| Viscosity, dynamic                              | : No data available |
| Explosion limits                                | : No data available |
| Explosive properties                            | : No data available |
| Oxidizing properties                            | : No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                             |                                 |
|-----------------------------|---------------------------------|
| Acute toxicity (oral)       | : Not classified                |
| Acute toxicity (dermal)     | : Harmful in contact with skin. |
| Acute toxicity (inhalation) | : Not classified                |

### EPO-TEK® H72 PMF SYRINGE

|                 |                           |
|-----------------|---------------------------|
| ATE US (dermal) | 1422.11 mg/kg body weight |
|-----------------|---------------------------|

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| <b>Substituted imidazole</b> |                          |
|------------------------------|--------------------------|
| LD50 oral rat                | 350 mg/kg Source: IUCLID |
| LD50 dermal rabbit           | 440 mg/kg Source: IUCLID |
| ATE US (oral)                | 173 mg/kg body weight    |
| ATE US (dermal)              | 440 mg/kg body weight    |

| <b>Substituted imidazole</b> |  |
|------------------------------|--|
| LD50 oral rat                | 731 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)  |
| LD50 dermal rabbit           | > 400 mg/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal)   |
| LC50 Inhalation - Rat        | > 0.03 mg/l (Equivalent or similar to OECD 403, 8 h, Rat, Male / female, Experimental value, (maximum achievable concentration), Inhalation (vapours)) |
| ATE US (oral)                | 731 mg/kg body weight  |

| <b>Imidazole (288-32-4)</b> |  |
|-----------------------------|--|
| LD50 oral rat               | 970 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 7 day(s)) |
| ATE US (oral)               | 960 mg/kg body weight  |

| <b>Bisphenol A diglycidyl ether resin</b> |   |
|---|---|
| LD50 dermal rat                           | > 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)) |

| <b>Resorcinal diglycidyl ether (101-90-6)</b> |                         |
|---|-------------------------|
| LD50 oral rat                                 | 2570 mg/kg Source: HSDB |
| ATE US (oral)                                 | 500 mg/kg body weight   |
| ATE US (dermal)                               | 300 mg/kg body weight   |

|                                   |   |
|-----------------------------------|---|
| Skin corrosion/irritation         | : Causes skin irritation.               |
| Serious eye damage/irritation     | : Causes serious eye damage.            |
| Respiratory or skin sensitization | : May cause an allergic skin reaction.  |
| Germ cell mutagenicity            | : Suspected of causing genetic defects. |
| Carcinogenicity                   | : May cause cancer.                     |

| <b>Substituted imidazole</b> |                                      |
|------------------------------|--------------------------------------|
| IARC group                   | 2B - Possibly carcinogenic to humans |

| <b>Bisphenol A diglycidyl ether resin</b>  |  |
|--|--|
| NOAEL (chronic,oral,animal/male,2 years)   | 15 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicity (migrated information)    |
| NOAEL (chronic,oral,animal/female,2 years) | 100 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicity (migrated information) |

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Resorcinol diglycidyl ether (101-90-6)

|  |   |
|--|---|
| IARC group                             | 2B - Possibly carcinogenic to humans          |
| National Toxicity Program (NTP) Status | Reasonably anticipated to be Human Carcinogen |
| Reproductive toxicity                  | : May damage fertility or the unborn child.   |
| STOT-single exposure                   | : Not classified                              |
| STOT-repeated exposure                 | : Not classified                              |

### Substituted imidazole

|                            |  |
|----------------------------|--|
| NOAEL (oral, rat, 90 days) | 150 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other: EPA OPPTS 870.3650 (Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test) |
|----------------------------|--|

### Imidazole (288-32-4)

|                            |   |
|----------------------------|---|
| NOAEL (oral, rat, 90 days) | 60 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |
|----------------------------|---|

### Bisphenol A diglycidyl ether resin

|                            |   |
|----------------------------|---|
| NOAEL (oral, rat, 90 days) | 50 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: other: Japanese MITI guidelines for toxicity testing of chemicals |
|----------------------------|---|

|                                     |  |
|-------------------------------------|--|
| Aspiration hazard                   | : Not classified                                   |
| Viscosity, kinematic                | : No data available                                |
| Symptoms/effects after skin contact | : Irritation. May cause an allergic skin reaction. |
| Symptoms/effects after eye contact  | : Serious damage to eyes.                          |

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

#### Substituted imidazole

|                      |                          |
|----------------------|--------------------------|
| LC50 - Fish [1]      | 0.34 mg/l Source: IUCLID |
| EC50 - Crustacea [1] | 180 mg/l Source: IUCLID  |

#### Substituted imidazole

|                      |   |
|----------------------|---|
| LC50 - Fish [1]      | 68.1 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value)  |
| EC50 - Crustacea [1] | 297.3 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value) |

#### Imidazole (288-32-4)

|                      |  |
|----------------------|--|
| LC50 - Fish [1]      | 283.6 mg/l (48 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)   |
| EC50 - Crustacea [1] | 341.5 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)  |
| ErC50 algae          | 133 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration) |



# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Imidazole (288-32-4)

|                    |         |
|--------------------|---------|
| NOEC chronic algae | 25 mg/l |
|--------------------|---------|

### Bisphenol A diglycidyl ether resin

|                |   |
|----------------|---|
| LOEC (chronic) | 1 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
|----------------|---|

|                |   |
|----------------|---|
| NOEC (chronic) | 0.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
|----------------|---|

## 12.2. Persistence and degradability

### Substituted imidazole

|                               |                           |
|-------------------------------|---------------------------|
| Persistence and degradability | Inherently biodegradable. |
|-------------------------------|---------------------------|

|                                 |  |
|---------------------------------|--|
| Biochemical oxygen demand (BOD) | 0.000002 g O <sub>2</sub> /g substance |
|---------------------------------|--|

|                              |                                      |
|------------------------------|--------------------------------------|
| Chemical oxygen demand (COD) | 0.0015 g O <sub>2</sub> /g substance |
|------------------------------|--------------------------------------|

### Substituted imidazole

|                               |                                 |
|-------------------------------|---------------------------------|
| Persistence and degradability | Readily biodegradable in water. |
|-------------------------------|---------------------------------|

### Imidazole (288-32-4)

|                               |  |
|-------------------------------|--|
| Persistence and degradability | Readily biodegradable in the soil. Readily biodegradable in water. |
|-------------------------------|--|

### Epoxy resin

|                               |   |
|-------------------------------|---|
| Persistence and degradability | Biodegradability in water: no data available. |
|-------------------------------|---|

### Bisphenol A diglycidyl ether resin

|                               |                                     |
|-------------------------------|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |
|-------------------------------|-------------------------------------|

### Resorcinol diglycidyl ether (101-90-6)

|                               |                                     |
|-------------------------------|-------------------------------------|
| Persistence and degradability | Not readily biodegradable in water. |
|-------------------------------|-------------------------------------|

## 12.3. Bioaccumulative potential

### Substituted imidazole

|   |                           |
|---|---------------------------|
| Partition coefficient n-octanol/water (Log Pow) | 0.35 (Experimental value) |
|---|---------------------------|

|                           |  |
|---------------------------|--|
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
|---------------------------|--|

### Substituted imidazole

|   |   |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | 1.13 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C) |
|---|---|

|                           |  |
|---------------------------|--|
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |
|---------------------------|--|

### Imidazole (288-32-4)

|   |   |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -0.02 (Weight of evidence approach, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C) |
|---|---|

|                           |                      |
|---------------------------|----------------------|
| Bioaccumulative potential | Not bioaccumulative. |
|---------------------------|----------------------|

### Epoxy resin

|                           |                                    |
|---------------------------|------------------------------------|
| Bioaccumulative potential | No bioaccumulation data available. |
|---------------------------|------------------------------------|

### Bisphenol A diglycidyl ether resin

|                                   |                                    |
|-----------------------------------|------------------------------------|
| BCF - Other aquatic organisms [1] | 31 (Estimated value, Fresh weight) |
|-----------------------------------|------------------------------------|

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Bisphenol A diglycidyl ether resin

|   |  |
|---|--|
| Partition coefficient n-octanol/water (Log Pow) | 3 (Estimated value, 25 °C)                     |
| Bioaccumulative potential                       | Low potential for bioaccumulation (BCF < 500). |

### Resorcinol diglycidyl ether (101-90-6)

|   |  |
|---|--|
| Partition coefficient n-octanol/water (Log Pow) | 1.15 Source: chemicalbook                        |
| Bioaccumulative potential                       | Low potential for bioaccumulation (Log Kow < 4). |

### 12.4. Mobility in soil

#### Substituted imidazole

|                  |   |
|------------------|---|
| Mobility in soil | 28.23 Source: EPI SUITE                               |
| Ecology - soil   | No (test)data on mobility of the substance available. |

#### Substituted imidazole

|  |  |
|--|--|
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 3.71 (log Koc, Calculated value, pH = 7) |
| Ecology - soil   | Low potential for mobility in soil.      |

#### Imidazole (288-32-4)

|  |   |
|--|---|
| Surface tension  | No data available in the literature     |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.36 – 2.32 (log Koc, Calculated value) |
| Ecology - soil   | Low potential for adsorption in soil.   |

#### Bisphenol A diglycidyl ether resin

|  |   |
|--|---|
| Surface tension  | 59 mN/m (20 °C, 0.09 g/l)               |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 2.65 (log Koc, SRC PCKOCWIN v2.0, QSAR) |
| Ecology - soil   | Low potential for adsorption in soil.   |

#### Resorcinol diglycidyl ether (101-90-6)

|  |  |
|--|--|
| Surface tension  | 63.9 mN/m (20 °C, 0.1 %, EU Method A.5: Surface tension) |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | 1.65 (log Koc, EU Method C.19, Experimental value)       |
| Ecology - soil   | Highly mobile in soil.                                   |

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

#### 14.1. UN number

DOT NA No : UN3267  
UN-No. (TDG) : UN3267  
UN-No. (IMDG) : 3267  
UN-No. (IATA) : 3267

#### 14.2. UN proper shipping name

Proper Shipping Name (DOT) : Corrosive liquid, basic, organic, n.o.s. (Imidazole)  
Proper Shipping Name (TDG) : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)  
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Imidazole)  
Proper Shipping Name (IATA) : Corrosive liquid, basic, organic, n.o.s. (Imidazole)

#### 14.3. Transport hazard class(es)

##### DOT

Transport hazard class(es) (DOT) : 8  
Hazard labels (DOT) : 8



##### TDG

Transport hazard class(es) (TDG) : 8  
Hazard labels (TDG) : 8



##### IMDG

Transport hazard class(es) (IMDG) : 8  
Hazard labels (IMDG) : 8



##### IATA

Transport hazard class(es) (IATA) : 8  
Hazard labels (IATA) : 8



#### 14.4. Packing group

Packing group (DOT) : III  
Packing group (TDG) : III  
Packing group (IMDG) : III

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Packing group (IATA) : III

### 14.5. Environmental hazards

Other information : No supplementary information available.

### 14.6. Special precautions for user

#### DOT

UN-No. (DOT) : UN3267  
DOT Special Provisions (49 CFR 172.102) : IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).  
T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)  
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (tr - tf)$  Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.  
TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.  
DOT Packaging Exceptions (49 CFR 173.xxx) : 154  
DOT Packaging Non Bulk (49 CFR 173.xxx) : 203  
DOT Packaging Bulk (49 CFR 173.xxx) : 241  
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L  
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L  
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.  
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters", 52 - Stow "separated from" acids

#### TDG

UN-No. (TDG) : UN3267  
TDG Special Provisions : 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks).  
(2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name:  
(a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S.;  
(b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S.;  
(c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S.;  
(d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S. or  
(e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S.  
(3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment:  
(a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or  
(b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS.  
Explosive Limit and Limited Quantity Index : 5 L  
Excepted quantities (TDG) : E1  
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 5 L  
Emergency Response Guide (ERG) Number : 153

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### IMDG

|                                    |   |
|------------------------------------|---|
| Special provision (IMDG)           | : 223, 274  |
| Limited quantities (IMDG)          | : 5 L   |
| Excepted quantities (IMDG)         | : E1  |
| Packing instructions (IMDG)        | : P001, LP01  |
| IBC packing instructions (IMDG)    | : IBC03   |
| Tank instructions (IMDG)           | : T7  |
| Tank special provisions (IMDG)     | : TP1, TP28   |
| EmS-No. (Fire)                     | : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE                              |
| EmS-No. (Spillage)                 | : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES                          |
| Stowage category (IMDG)            | : A   |
| Properties and observations (IMDG) | : Reacts violently with acids. Causes burns to skin, eyes and mucous membranes. |

### IATA

|  |            |
|--|------------|
| PCA Excepted quantities (IATA)               | : E1       |
| PCA Limited quantities (IATA)                | : Y841     |
| PCA limited quantity max net quantity (IATA) | : 1L       |
| PCA packing instructions (IATA)              | : 852      |
| PCA max net quantity (IATA)                  | : 5L       |
| CAO packing instructions (IATA)              | : 856      |
| CAO max net quantity (IATA)                  | : 60L      |
| Special provision (IATA)                     | : A3, A803 |
| ERG code (IATA)                              | : 8L       |

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

|                             |                  |          |
|-----------------------------|------------------|----------|
| Resorcinol diglycidyl ether | CAS-No. 101-90-6 | 10 – 30% |
|-----------------------------|------------------|----------|

### 15.2. International regulations

#### CANADA

##### Substituted imidazole

Listed on the Canadian NDSL (Non-Domestic Substances List)

##### Substituted imidazole

Listed on the Canadian DSL (Domestic Substances List)

##### Imidazole (288-32-4)

Listed on the Canadian DSL (Domestic Substances List)

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Epoxy resin

Listed on the Canadian DSL (Domestic Substances List)

### Bisphenol A diglycidyl ether resin

Listed on the Canadian DSL (Domestic Substances List)

### Resorcinol diglycidyl ether (101-90-6)

Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

No additional information available

### National regulations

#### Substituted imidazole

Listed on IARC (International Agency for Research on Cancer)

#### Imidazole (288-32-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

#### Resorcinol diglycidyl ether (101-90-6)

Listed on IARC (International Agency for Research on Cancer)  
Listed as carcinogen on NTP (National Toxicology Program)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)

### 15.3. US State regulations



#### WARNING:

This product can expose you to Substituted imidazole, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

| Component                             | State or local regulations  |
|---------------------------------------|---|
| Resorcinol diglycidyl ether(101-90-6) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List |

## SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Full text of H-phrases

|      |   |
|------|---|
| H302 | Harmful if swallowed                    |
| H311 | Toxic in contact with skin              |
| H312 | Harmful in contact with skin            |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation                  |
| H317 | May cause an allergic skin reaction     |
| H318 | Causes serious eye damage               |

# EPO-TEK® H72 PMF SYRINGE

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Full text of H-phrases |   |
|------------------------|---|
| H319                   | Causes serious eye irritation                     |
| H341                   | Suspected of causing genetic defects              |
| H350                   | May cause cancer                                  |
| H351                   | Suspected of causing cancer                       |
| H360                   | May damage fertility or the unborn child          |
| H401                   | Toxic to aquatic life                             |
| H402                   | Harmful to aquatic life                           |
| H411                   | Toxic to aquatic life with long lasting effects   |
| H412                   | Harmful to aquatic life with long lasting effects |

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.