



SAFETY DATA SHEET EPO-TEK® H27D PMF Syringe

1. Identification

Product identifier

Product name EPO-TEK® H27D PMF Syringe

Product number H27D

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 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.

EPO-TEK® H27D PMF Syringe

Precautionary statements	<p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	Bisphenol A Diglycidyl Ether Resin, Substitued Anhydride, Reactive Diluent, Phthalic Anhydride

3. Composition/information on ingredients

Mixtures

Silver	60-100%
CAS number: 7440-22-4	
Classification	
Aquatic Chronic 2 - H411	
Bisphenol A Diglycidyl Ether Resin	10-30%
CAS number: 25085-99-8	
Classification	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	
Substitued Anhydride	5-10%
CAS number: Proprietary	
Classification	
Eye Dam. 1 - H318	
Resp. Sens. 1 - H334	
Skin Sens. 1 - H317	
Reactive Diluent	1-5%
CAS number: Proprietary	
Classification	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Resp. Sens. 1 - H334	
Skin Sens. 1 - H317	
Muta. 2 - H341	

EPO-TEK® H27D PMF Syringe

Phthalic Anhydride	<1%
CAS number: 85-44-9	
Classification	
Acute Tox. 4 - H302	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	
Resp. Sens. 1 - H334	
Skin Sens. 1 - H317	
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 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.
Ingestion	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.
Skin Contact	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.
Eye contact	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

General information	Suspected of causing genetic defects.
Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion	May cause discomfort if swallowed.
Skin contact	Causes skin irritation. May cause sensitisation by skin contact.
Eye contact	Causes serious eye 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 Dry chemicals. Foam. Water spray.

Special hazards arising from the substance or mixture

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO₂).

Advice for firefighters

EPO-TEK® H27D PMF Syringe

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. 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

Environmental precautions Avoid discharge to the aquatic environment.

Methods and material for containment and cleaning up

Methods for cleaning up 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.

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 inhalation of vapors and contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

Advice on general occupational hygiene 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

Storage precautions Store at -40°C. 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

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

Phthalic Anhydride

Long-term exposure limit (8-hour TWA): ACGIH 1 ppm

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

ACGIH = American Conference of Governmental Industrial Hygienists.

Exposure controls

EPO-TEK® H27D PMF Syringe

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 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.

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

EPO-TEK® H27D PMF Syringe

10. Stability and reactivity

Reactivity	The following materials may react with the product: Acids. Alkalis. Oxidizing agents. Reducing agents.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	May polymerize.
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
Materials to avoid	Acids. Alkalis. Oxidizing agents. Reducing agents.
Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Carbon monoxide (CO). Carbon dioxide (CO ₂).

11. Toxicological information

Information on toxicological effects

Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion	May cause discomfort if swallowed.
Skin Contact	Causes skin irritation. May cause sensitisation by skin contact.
Eye contact	Causes serious eye damage.
Acute and chronic health hazards	Suspected of causing genetic defects.

12. Ecological Information

Ecotoxicity	Toxic to aquatic life with long lasting effects.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	Not available.
<u>Persistence and degradability</u>	
Persistence and degradability	No data available.
<u>Bioaccumulative potential</u>	
Bio-Accumulative Potential	No data available on bioaccumulation.
Partition coefficient	No specific test data are available.
<u>Mobility in soil</u>	
Mobility	No data available.
<u>Other adverse effects</u>	
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.
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EPO-TEK® H27D PMF Syringe**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 SUBSTANCE, LIQUID, N.O.S. (CONTAINS Silver, Bisphenol A Diglycidyl Ether Resin)

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

EPO-TEK® H27D PMF Syringe**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.

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.

Australia - AICS

Some of 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 8/17/2018

Revision 1

EPO-TEK® H27D PMF Syringe

Hazard statements in full

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- 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.