REGULATORY INFORMATION

PRODUCT NAME: Epo Tek H20E

DATE ISSUED: 4/17/97

EPOXY TECHNOLOGY 14 FORTUNE DRIVE **BILLERICA, MA 01821** TEL: (978) 667-3805

1. SARA Title III Section 313 Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372):

> Component Silver

CAS # 7440-22-4 60

This information must be included in all MSDSs that are copied and distributed for this material.

2. TSCA Inventory Status

All the components of this product are listed on the TSCA Inventory.

3. RCRA Status

This product contains the following chemicals listed on the 40 CFR Part 261.33: None

4. CERCLA Status

This product contains the following chemicals listed on the 40 CFR Part 302.4:

Component Silver

5. Transportation

DOT/IATA Shipping Name: Hazard Class/Division

Not Restricted Not Applicable

UN Number:

Not Applicable

The information contained herein is given in good faith. However, no guarantee or warranty of any kind expressed or implied is made with respect to this information.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Epo Tek H20E, Part A
INGREDIENT CODE NUMBER: Not applicable

'HMIS: HEALTH- 2 FIRE-1 REACTIVITY- 1

*ANSI CODE: 2

Carcinogen: NTP (No) IARC (No) OSHA (No)

EPOXY TECHNOLOGY 14 FORTUNE DRIVE BILLERICA, MA 01821

EMERGENCY PHONE:

(978) 667 3805

DATE ISSUED: 4/17/97

* HMIS and ANSI CODE ratings are estimated by Epoxy Technology.

I. IDENTIFICATION & PHYSICAL DATA

PERCENT VOLATILE: NA
BOILING POINT: NA
VAPOR DENSITY: >Air
APPEARANCE: Silver Paste

ODOR: Mild

VAPOR PRESSURE: NA SOLUBILITY IN WATER: Low EVAPORATION RATE: <BUAC SPECIFIC GRAVITY: NA

II. HAZARDOUS INGREDIENTS

CAS#

WT %

TOXICITY DATA

Silver flake

7440-22-4

60

See Ingredient 310200 MSDS

Silver is the only Epo Tek H20E, Part A ingredient that requires MSDS reporting per Mass. RTK.

III. FIRE & EXPLOSION DATA

FLASH POINT: >200F

EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide.

UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid furnes liberated by heat.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self contained breathing apparatus and complete personal protective equipment. Remove all ignition sources. Use a water spray to cool fire exposed containers.

IV. REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizing and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Fumes produced when heated to decomposition may include carbon monoxide, and carbon dioxide.

To the best of our knowledge, the information contained herein is accurate. Epoxy Technology Inc., however, assumes no liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

EFFECTS OF OVER EXPOSURE

INGESTION: May cause severe gastric disturbance. May be moderately toxic. INHALATION: Can cause respiratory irritation. This type of exposure is avoidable with the use of local exhaust ventilation.

SKIN CONTACT: Can cause dermatitis and irritation. This type of exposure can be avoided by the use of local exhaust ventilation, gloves, and chemical splash goggles. EYE CONTACT: Irritating to the eyes. this type of exposure can be avoided by the use of local exhaust ventilation and chemical splash goggles.

CHRONIC EFFECTS OF OVER EXPOSURE: Can cause dermatitis and sensitization. See MSDS for silver - Ingredient 310200.

EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT: In case of eye contact, flush well with water and get medical attention immediately.

SKIN CONTACT: In case of skin contact, clean with soap and water. Do not use solvents

INGESTION: If swallowed, get medical attention immediately.

INHALATION: Can be irritating to respiratory tract. This type of exposure is

avoidable with positive exhaust ventilation.

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED: Eliminate ignition sources. Use eye and skin protection. Place leaking containers in a well ventilated area. Absorb spillage with inert material and dispose.

WASTE DISPOSAL METHOD: Incinerate or use hazardous waste treatment procedures that are in accordance with federal, state and local regulations.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Wear an approved respirator whenever high level exposure to vapors or mist is anticipated.

VENTILATION: Locale exhaust recommended for exposure control.

PROTECTIVE GLOVES: Impervious gloves - neoprene or equivalent. A combination of barrier cream and gloves is recommended.

EYE PROTECTION: Chemical splash goggles recommended.

OTHER PROTECTIVE EQUIPMENT: For operations where contact can occur, use a face shield and impervious apron. A safety shower and eye wash facility should be available.

VIII. SPECIAL PRECAUTIONS: Avoid contact with skin and eyes. Avoid breathing vapors. Keep containers closed when not in use. Remove all contaminated clothing immediately and wash. Wash skin thoroughly with soap and water after handling. Solvents should not be used to clean skin because of increased penetration potential - protective skin oils can be dissolved by solvents.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Epo Tek H20E, Part B
INGREDIENT CODE NUMBER: Not applicable

*HMIS: HEALTH- 2 FIRE-1 REACTIVITY- 1

*ANSI CODE: 2

Carcinogen: NTP (No) IARC (No) OSHA (No)

EPOXY TECHNOLOGY 14 FORTUNE DRIVE BILLERICA, MA 01821

EMERGENCY PHONE:

(978) 667 3805

DATE ISSUED: 4/17/97

I. IDENTIFICATION & PHYSICAL DATA

PERCENT VOLATILE: NA
BOILING POINT: NA
VAPOR DENSITY: >Air
APPEARANCE: Silver Paste

ODOR: Mild

VAPOR PRESSURE: NA SOLUBILITY IN WATER: Low EVAPORATION RATE: <BUAC

SPECIFIC GRAVITY: NA

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11.	HAZARDOUS	INGREDIENTS

CAS#

WT %

TOXICITY DATA

Silver flake

7440-22-4

80

See Ingredient 310200 MSDS

Silver is the only Epo Tek H20E, Part B ingredient that requires MSDS reporting per Mass. RTK.

III. FIRE & EXPLOSION DATA

FLASH POINT: >200F

EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide.

UNUSUAL FIRE & EXPLOSION HAZARDS: Avoid fumes liberated by heat.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self contained breathing apparatus and complete personal protective equipment. Remove all ignition sources. Use a water spray to cool fire exposed containers.

IV. REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Excessive heat.

MATERIALS TO AVOID: Strong oxidizing and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Furnes produced when heated to decomposition may include oxides of nitrogen, carbon monoxide, and carbon dioxide.

To the best of our knowledge, the information contained herein is accurate. Epoxy Technology Inc., however, assumes no liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

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Epo Tek H20E, Part B

V. HEALTH HAZARD DATA

EFFECTS OF OVER EXPOSURE

INGESTION: Contains materials that may be moderately toxic. Ingestion can severely upset the gastric system.

INHALATION: Can cause respiratory irritation and sensitization. This type of contact can be avoided by the use of local, exhaust ventilation.

SKIN CONTACT: May cause dermatitis and sensitization. This type of exposure is avoidable by the use of local, exhaust ventilation, adequate clothing, gloves and chemical splash goggles.

EYE CONTACT: Irritating to the eyes. Can cause injury. This type of exposure is avoidable by the use of local, exhaust ventilation, adequate clothing, gloves and chemical splash goggles.

CHRONIC EFFECTS OF OVER EXPOSURE: May cause dermatitis and sensitization.

EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT: In event of eye contact, flush well with water and get medical attention immediately.

SKIN CONTACT: In case of skin contact, clean with soap and water. Do not use

solvents. Remove contaminated clothing.

INGESTION: Get medical attention immediately. INHALATION: Can be irritating to respiratory tract.

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED: Eliminate ignition sources. Use eye and skin protection. Place leaking containers in a well ventilated area. Absorb spillage with inert material and dispose.

WASTE DISPOSAL METHOD: Incinerate or use hazardous waste treatment procedures that are in accordance with federal, state and local regulations.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Wear a NIOSH approved respirator whenever high level exposure to vapors or mist is anticipated.

VENTILATION: Local exhaust ventilation recommended for exposure control.

PROTECTIVE GLOVES: Impervious gloves - neoprene or equivalent. A combination of barrier cream and gloves is recommended.

EYE PROTECTION: This type of contact can be avoided through the use of Chemical splash goggles.

OTHER PROTECTIVE EQUIPMENT: For operations where contact can occur, use a face shield and impervious apron. A safety shower and eye must be located in close proximity to work and handling areas.

VIII. SPECIAL PRECAUTIONS: Avoid contact with skin and eyes. Avoid breathing vapors. Keep containers closed when not in use. Remove all contaminated clothing immediately and wash. Wash skin thoroughly with soap and water after handling. Solvents should not be used to clean skin because of increased penetration potential protective skin oils can be dissolved by solvents.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Not applicable INGREDIENT CODE NUMBER: 310200

*HMIS: HEALTH-1 FIRE-0 REACTIVITY-0

*ANSI CODE: 1

Carcinogen: NTP (No) IARC (No) OSHA (No)

EPOXY TECHNOLOGY 14 FORTUNE DRIVE BILLERICA, MA 01821

EMERGENCY PHONE:

(978) 667 3805

DATE ISSUED: 9/18/96

* HMIS and ANSI CODE ratings are estimated by Epoxy Technology.

I. IDENTIFICATION & PHYSICAL DATA

PERCENT VOLATILE: <0.5 %

BOILING POINT: NA VAPOR DENSITY: >Air

APPEARANCE: Fine powder - Silver color

ODOR: Mild

VAPOR PRESSURE: NA SOLUBILITY IN WATER: NII EVAPORATION RATE: NA SPECIFIC GRAVITY: 10.5

11.	HAZARDOUS INGREDIENTS	CAS#	WT %	TOXICITY DATA
	Silver flake	*-7440-22-4	100	ACGIH TLV (TWA) = 0.10 mg/M3 OSHA PEL (TWA) = 0.01 mg/M3

Silver appears in the Mass. RTK Hazardous substance list.

III. FIRE & EXPLOSION DATA

FLASH POINT: >200F

EXTINGUISHING MEDIA: Non Flammable UNUSUAL FIRE & EXPLOSION HAZARDS: None SPECIAL FIRE FIGHTING PROCEDURES: None

IV. REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: NA

MATERIALS TO AVOID: NA

HAZARDOUS DECOMPOSITION PRODUCTS: NA

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V. HEALTH HAZARD DATA

EFFECTS OF OVER EXPOSURE

INGESTION: No specific information available.

INHALATION: Prolonged or severe exposure to dust may produce respiratory irritation. The use of NIOSH approved respirators and effective, local exhaust ventilation can minimize this type of exposure.

SKIN CONTACT: Prolonged or repeated contact may result in irritation.

EYE CONTACT: Irritating to the eyes. The use of chemical splash goggles will prevent this form of contact.

CHRONIC EFFECTS OF OVER EXPOSURE: Prolonged or repeated exposure to silver dust can result in Pneumoconiosis and/or permanent skin pigmentation (Argyria).

EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT: In case of eye, contact, flush well with water. Get medical attention immediately.

SKIN CONTACT: In case of skin contact, clean with soap and water. Do not use

solvents. Remove contaminated clothing.

INGESTION: Get medical attention immediately.

INHALATION: Remove employee to fresh air. If discomfort persists, get medical

attention.

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED: Vacuum or sweep up dust. Follow good housekeeping procedures.

WASTE DISPOSAL METHOD: Use hazardous waste treatment procedures that are in accordance with federal, state and local regulations.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Wear a NIOSH approved respirator whenever high level exposure to air born particles is anticipated.

VENTILATION: Locale exhaust recommended for exposure control.

PROTECTIVE GLOVES: Impervious gloves - neoprene or equivalent. A combination of barrier cream and gloves is recommended.

EYE PROTECTION: Chemical splash goggles recommended.

OTHER PROTECTIVE EQUIPMENT: For operations where contact can occur, use a face shield and impervious apron. A safety shower and eye wash facility should be available.

VIII. SPECIAL PRECAUTIONS: Avoid contact with skin and eyes. Avoid breathing air born particles. Keep containers closed when not in use. Remove all contaminated clothing and wash.