

THE TAPECOAT COMPANY

MATERIAL SAFETY DATA SHEET

Provided by: The Tapecoat Company
 1527 Lyons Street
 Evanston, IL 60204
 Phone: 847-866-8500

This form is designed to meet the requirements of the U.S. Labor Department OSHA form no.174.

SECTION I - PRODUCT IDENTIFICATION

Product Name: TC 7000 Part A
Producer: The Tapecoat Company Telephone: 847-866-8500

24 Hour Emergency Assist: Chemtrec Telephone: 800-424-9300

Chemical Name: N/A
Chemical Family: Epoxy Base

| | |
|----------------------------------|---|
| HMIS/NFPA HAZARD RATINGS: | |
| Health Hazard: | 2 |
| Flammability Hazard: | 1 |
| Reactivity Hazard: | 1 |

SECTION II - HAZARDOUS COMPONENTS

| Ingredient (CAS No.) | Weight % | OSHA PEL-TWA CFR29-1983 | ACGIH TLV-TWA 1990 | 313 Report | LD ₅₀ | LC ₅₀ | Other Limits |
|--|----------|-------------------------|--------------------|------------|---|------------------|--|
| Epoxy Resin (Bisphenol A diglycidyl ether type) (25068-38-6) | 30-45 | N/E | N/E | no | N/E | N/E | |
| Barium Compounds | 40-70 | N/E | N/E | yes | N/E | N/E | |
| Silicon Dioxide, amorph. (7631-86-9) | .25-5 | N/E | N/E | no | N/E | N/E | OSHA: 20 MPPCF ACGIH: 5 mg/m ³ |
| 2-Ethylhexyl Glycidyl Ether (2461-15-6) | 2-3 | | ppm | no | 7800 mg/kg (rat, oral) >2000 mg/kg (rabbit, dermal) (estimate) | N/E | |

SECTION III - PHYSICAL DATA

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|--|---|
| Boiling Point Range: 320°F | Percent Volatile by Volume: 0 |
| Specific Gravity: 1.84 | Evap. Rate, N-Butyl Acetate = 1: N/A |
| Vapor Density (air = 1): N/A | Appearance and Odor: Red with typical epoxy odor |
| Solubility in Water: Negligible | Vapor Pressure (mmHg @ 20°C): N/E |

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method: N/A
Flammable Limits: LEL: N/A
Extinguishing Media: Carbon dioxide, dry chemical, foam, water fog, and water spray
Special Fire Fighting Procedures: Containers that are exposed to intense heat should be cooled with water. Avoid spreading burning liquid with the water used for cooling purposes. Do not enter fire area without the proper protection. Wear self-contained breathing apparatus and protective gear. Fight fire from a safe distance or a protected location.

Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Vapors may be heavier than air and may travel along the ground before ignition/flashing back to vapor source. Keep welding or cutting equipment away from product.

SECTION V - HEALTH HAZARD DATA

Effects of Overexposure:

- **Eyes:** Can cause severe irritation and pain, redness, tearing and blurred vision. Repeated and/or prolonged exposures may result in adverse eye effects such as conjunctivitis or corneal damage.
- **Ingestion:** Can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of swallowed material into the lungs can cause chemical pneumonitis which can be fatal. Absorption through gastrointestinal tract may produce liver damage and symptoms of central nervous system depression ranging from light-headedness to unconsciousness.
- **Inhalation:** Irritation of the respiratory tract or nervous system depression producing such effects as giddiness, headache, dizziness, nausea, and loss of consciousness. If severe, death may occur.
- **Skin:** Prolonged or repeated contact with skin may cause irritation, defatting and/or dermatitis. Repeated and/or prolonged contact with the skin may cause allergic reaction or sensitization.

Preexisting eye, skin, and respiratory disorders may be aggravated by any exposure to this product. Exercise due care when handling this product.

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The effects of chronic exposure to this product have not been fully investigated but reports have associated repeated and prolonged exposure to paint solvents with brain and nervous system damage.

This product is for industrial use only.

Synergistic materials: None known

Emergency and First Aid Procedures:

- **Eyes:** Flush with water for at least 15 minutes lifting upper and lower lids and seek immediate medical attention.
- **Ingestion:** Do not induce vomiting. This material is not soluble. Do not give fluids. If spontaneous vomiting is inevitable, prevent aspiration by keeping the victim's head below the knees. Get immediate medical attention.
- **Inhalation:** Remove to fresh air. Call a physician if necessary. If breathing stops, begin artificial respiration. If breathing is difficult, administer oxygen.
- **Skin:** Remove contaminated clothing. Flush with water. Follow by washing with additional soap and water. Seek medical attention if irritation from contact persists. Remove and launder contaminated clothing before reuse.

Chemicals contained herein listed as carcinogens or potential carcinogens:

NTP: NONE

IARC: NONE

OSHA: NONE

SECTION VI - REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Avoid open flames, welding arcs or other high temperature sources which induce thermal decomposition.

Incompatibility (Material to Avoid): Avoid contact with strong oxidizing agents (i.e. perchlorates, nitrates, etc.), Cleaning solutions, such as chromerge (sulfuric acid/dichromate) and aqua regia. A reaction accompanied by large heat release occurs when the product is mixed with acids.

Hazardous Decomposition Products: Incomplete combustion may generate carbon monoxide, carbon dioxide, and other toxic vapors from organic compounds. Nitrogen oxides may be evolved in a fire, nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV=2 ppm).

Hazardous Polymerization: Will not occur.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Shut off and eliminate all ignition sources. Keep people away. Recover free liquid. Add absorbent to spill area. Avoid breathing vapors. Ventilate enclosed

spaces. Keep out of streams and sewers. Place absorbed material in properly sealed non-leaking containers for proper disposal. Advise proper authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Dike properly to contain a large spill.

Waste disposal method: If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in a container or dumpster pending disposal. Shovel spilled chemical product into empty, dry container for later disposal or recovery. Place in metal containers for recovery or disposal. Flush area with water spray. Clean-up personnel must be equipped with self contained breathing apparatus and butyl rubber protective clothing. Dispose of in accordance with Federal, State, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: The use of respiratory protection depends on the vapor concentration above the TLV-PEL. Use a NIOSH/MSHA approved cartridge-type particulate/vapor respirator or air-supplied mask in confined areas.

Ventilation: Work in well ventilated areas. All application areas should be ventilate in accordance with OSHA Regulation 29 CFR 1910. Local exhaust must be provided to keep LEL and TLV-PEL of the hazardous ingredients below acceptable limits of exposure.

Protective Gloves: Solvent resistant gloves should be worn for prolonged or repeated contact.

Eye Protection: Chemical goggles, face shield.

Other Protective Equipment: Use as necessary depending upon the method of application and immediate working environment.

SECTION IX - SPECIAL PRECAUTIONS

Hygienic Practices: Always wash hands after using this material and before eating, drinking, or smoking.

Precautions for Handling and Storing: Keep product containers cool, dry and away from any source of ignition. Use and store this product with adequate ventilation. Keep containers properly closed when not in use. For storage conditions refer to OSHA Regulation 29 CFR 1910.106.

SECTION X - NOTES

Note: N/A = not applicable

Issue Date: March 16, 1994

Revision Date: 14 Jun 2002

N/E = not established

Issued By: D. Kathrein

Review Date: 30 Jan 2007

Information herein is given in good faith and is, to the best of our knowledge and belief, accurate and reliable. However, since information herein was obtained, in part, from independent suppliers not under the direction and supervision of The Tapecoat Company, The Tapecoat Company makes no warranty or representation, express or implied, that the information is accurate, reliable, complete or representative. The Tapecoat Company warrants only that it has made no effort to censor other than trade secret information or to conceal deleterious aspects of its products. The data shown above in no way modifies, amends, or enlarges any specification or warranty.

All components of this product are listed in the EPA/TSCA Inventory of Chemical Substances.

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SECTION I - PRODUCT IDENTIFICATION

Product Name: **TC 7000 Part B**
Producer: The Tapecoat Company Telephone: 847-866-8500
 24 Hour Emergency Assist: Chemtrec Telephone: 800-424-9300

Chemical Name: Epoxy Cure Mixture
Chemical Family: Aliphatic Amine

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|----------------------------------|---|
| HMIS/NFPA HAZARD RATINGS: | |
| Health Hazard: | 3 |
| Flammability Hazard: | 1 |
| Reactivity Hazard: | 0 |

SECTION II - HAZARDOUS COMPONENTS

| Ingredient (CAS No.) | Weight % | OSHA PEL-TWA CFR2 9-1993 | ACGIH TLV-TWA 1994 | 313 Report | LD ₅₀ | LC ₅₀ |
|-----------------------------------|----------|--------------------------|--------------------|------------|------------------|------------------|
| Benzene-1,3-Dimethaneamine (MXDA) | >15 | N/E | N/E | no | N/E | N/E |
| Phenol (108-95-2) | <20 | 5 ppm | 5 ppm | yes | | |

* Product Estimates: LD50 (rat, oral): >2200 mg/kg LD50 (rabbit, dermal): >1000 ml/kg

SECTION III - PHYSICAL DATA

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| Boiling Point Range: >455°F | Percent Volatile by Volume: N/E |
| Specific Gravity: 1.11 @ 25°C | Evap. Rate, N-Butyl Acetate = 1: N/E |
| Vapor Density (air = 1): N/E | Appearance and Odor: viscous liquid, amber, phenolic odor |
| Solubility in Water: <1.0% | Vapor Pressure (mmHg @ 21°C): <20.68 |

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method: 110°C (230°F) Closed Cup
Flammable Limits: N/E
Fire Hazard Classification (OSHA/NFPA): Combustible Liquid, Class IIIB
Extinguishing Media: Ignition will give rise to a Class B fire. In case of fire use: water stream
Special Fire Fighting Procedures: A face shield should be worn. Firefighters should wear butyl rubber boots, gloves, and body suit and a self-vontained breathing apparatus. Avoid skin contact. Retain expended liquids from fire fighting for later disposal.

Unusual Fire and Explosion Hazards: May generate toxic or irritating combustion products. Contact of liquid with skin must be avoided. May generate carbon monoxide gas. May generate toxic nitrogen oxide gases. May generate ammonia gas.

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| SECTION V - HEALTH HAZARD DATA |
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Effects of Overexposure:

- **Eyes:** Corrosive to eyes. Severe eye irritant.
- **Ingestion:** Oral LD50 (rat): >2200 mg/kg (estimate). See Emergency and First Aid Procedures below.
- **Inhalation:** Severe respiratory tract irritant. See Emergency and First Aid Procedures below.
- **Skin:** Dermal LD50 (rabbit): >1000 mg/kg (estimate). Severe skin irritant. May cause skin sensitization.

Signs and Symptoms of Exposure (Acute Effects): Burns of the eye may cause blindness. Contact of undiluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. Inhalation of vapors may severely damage contacted tissue and produce scarring. Risk of exposure to hazardous concentrations of vapor under normal working conditions in a well ventilated space is minimal. However, conditions such as spraying, or sudden release of hot liquid, which generate an aerosol, mists or fog should be avoided.

Signs and Symptoms of Exposure (Possible Longer Term Effects): Repeated and/or prolonged exposure may cause allergic reaction/sensitization. Repeated and/or prolonged exposures may result in : adverse skin effects (such as rash, irritation or corrosion); adverse eye effects (such as conjunctivitis or corneal damage), liver disorders (such as jaundice of liver enlargement), Kidney disorders (such as edema or proteinuria) , adverse respiratory effects (such as cough, tightness of chest or shortness of breath).

Medical Conditions Generally Aggravated by Exposure: Asthma, chronic respiratory disease (e.g. Bronchitis, Emphysema), Skin disorders and allergies. Eye disease. Kidney disorder. Liver disorders.

Emergency and First Aid Procedures:

- **Eyes:** Flush with water for at least 15 minutes lifting upper and lower lids and seek medical attention.
- **Ingestion:** Do not induce vomiting. Give 3 to 4 glasses of mild or water. Never give anything by mouth to an unconscious person. Avoid aspiration of vomited material. Get immediate medical attention.
- **Inhalation:** Remove to fresh air. Call a physician. If breathing stops, begin artificial respiration.
- **Skin:** Remove product and immediately flush affected area with water for at least 15 minutes. Remove contaminated clothing and shoes. Except in the most minor, superficial and localized burns, cover the affected area with a sterile dressing or clean sheeting and transport for medical care. Do not apply greases or ointments. Control shock, if present. Launder contaminated clothing prior to reuse. Contaminated leather wear should be discarded.

Chemicals contained herein listed as carcinogens or potential carcinogens:

NTP: no

IARC: no

OSHA: No

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|-------------------------------------|
| SECTION VI - REACTIVITY DATA |
|-------------------------------------|

Stability: Stable**Conditions to Avoid:** N.A.

Incompatibility (Material to Avoid): Avoid contact with strong oxidizing agents (i.e. perchlorates, nitrates etc.). Mineral acids (sulfuric, phosphoric, etc.) Organic acids (perchlorates, nitrates, etc.) Reactive metals (sodium, calcium zinc etc.) Sodium or Calcium Hypochlorite. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials reactive with hydroxyl compounds.

Hazardous Decomposition Products: (from burning, heating or reaction with other materials) Carbon monoxide and Nitrogen oxides in a fire. Ammonia when heated. Irritating and toxic fumes at elevated temperatures. Aldehydes. Nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV=2 ppm).

Hazardous Polymerization: Will not occur.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Shut off and eliminate all ignition sources. Keep people away. Recover free liquid. Add absorbent to spill area. Avoid breathing vapors. Ventilate enclosed spaces. Keep out of streams and sewers. Place absorbed material in properly sealed non-leaking containers for proper disposal. Advise proper authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Dike properly to contain a large spill. Wear protective clothing.

Waste disposal method: Dispose of in accordance with Federal, State, and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: The use of respiratory protection depends on the vapor concentration above the TLV-PEL. Use a NIOSH/MSHA approved cartridge-type particulate/vapor respirator or air-supplied mask in confined areas.

Ventilation: Work in well ventilated areas. All application areas should be ventilate in accordance with OSHA Regulation 29 CFR 1910. Local exhaust must be provided to keep LEL and TLV-PEL of the hazardous ingredients below acceptable limits of exposure.

Protective Gloves: Neoprene or Nitrile rubber gloves should be worn for prolonged or repeated contact.

Eye Protection: Safety glasses, chemical goggles, face shield.

Other Protective Equipment: Use as necessary depending upon the method of application and immediate working environment.

SECTION IX - SPECIAL PRECAUTIONS

Hygienic Practices: Always wash hands after using this material and before eating, drinking, or smoking.

Precautions for Handling and Storing: Keep product containers cool, dry and away from any source of ignition. Use and store this product with adequate ventilation. Keep containers properly closed when not in use. For storage conditions refer to OSHA Regulation 29 CFR 1910.106.

SECTION X - NOTES

Note: N/A = not applicable

N/E = not established

Issue Date: 8 Jan 2001

Issued By: D. Kathrein

Revision Date: 26 Jun 2007

Review Date: 26 Jun 2007

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