

Safety Data Sheet

According to 1907/2006/EC (REACH) and 1272/2008/EC (CLP)

Printing Date: 10/3/2014

Revision: 10/3/2014

Trade Name: E100-PTF™ - Fast Set Hardener – Part B Only

1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade Name: E100-PTF™ Part B Only – Fast Set Hardener

1.2 Article No.: E100-PTF™ Part B

1.3 Details of the supplier of the Safety Data Sheet Manufacturer:

Elite Crete Systems
1061 Transport Drive
Valparaiso, IN 46383
Toll Free: 888.323.4445
Tel: (219) 465-7671
Fax: (219) 531-0898
www.elitecrete.com

1.4 Emergency telephone number:

CHEMTREC US DOMESTIC: (800-424-9300)
CHEMTREC INTERNATIONAL: (703-527-3887)

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 and GHS:

Reproductive Toxicity Category 2
Acute Inhalation Toxicity Category 4
Acute Oral Toxicity Category 4
Skin Sensitization Category 1
Skin Corrosion/Irritation Category 2
Acute Aquatic Toxicity Category 1
Chronic Aquatic Toxicity Category 2

Classification according to Directive 1999/45/EC:



C; Corrosive.

R34: Causes burns.



Xn; Harmful.

R22: harmful if swallowed.



Xi; Sensitizing.

R43: May cause sensitization by skin contact.



N; Dangerous for the environment

R50: Very toxic to aquatic organisms.

Information concerning particular hazards for human and environment:

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification System:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

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2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008:

Product has been labeled according to the CLP regulation.

Hazard pictograms:



GHS05 GHS07 GHS08 GHS09

Signal Word: Danger

Hazard-determining components of labeling:

Contains: Benzene- 1,3-Diamethanamine, Trimethylhexamine-1,6-Diamine. May produce and allergic reaction.

Hazard statements:

- H361: Suspected of damaging fertility or the unborn child.
- H302 Harmful if swallowed.
- H332: Harmful inhaled.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
- H400: Vary toxic to aquatic life.
- H401: Very toxic to aquatic life with long lasting effects.

Precautionary statements

- P260: Do not breath dust/fume/gas/mist/vapors/spray
- P264: Wash hands thoroughly after handling
- P270: Do not eat, drink or smoke when using this product
- P271: Use only in well ventilated area.
- P273: Avoid release to the Environment
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P337+P313: If eye irritation persists: Get medical advice/attention.
- P370+P378: In case of fire: Use for extinction: CO2, powder or water spray.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P391: Collect spillage.
- P403+P235: Store in a well-ventilated place. Keep cool.
- P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description:

Canadian WHMIS Classification:

- D2B - Toxic material causing other toxic effects.
- E - Corrosive material

WHMIS-symbols:



NFPA ratings (scale 0 - 4)



Health = 3
Fire = 1
Reactivity = 0

HMIS-ratings (scale 0 - 4)

| | |
|------------|---|
| Health | 3 |
| Fire | 1 |
| Reactivity | 0 |

Health = 3
Fire = 1
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2.3 Other hazards

No known

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3 Composition/information on ingredients

3.2 Mixture.

Description: Mixture of substances listed below with nonhazardous additives.

Hazardous components:

| Identification # | Description | WT. % |
|--------------------------------------|--|----------|
| CAS: 98-54-4 EINECS: 202-679-0 | Paratertiarybutyphenol HAZARD CLASSIFICATION: [C] Corrosive. [N] Dangerous to the Environment RISK PHRASES: R34, R51/53 | 35 – 50% |
| CAS: 1477-55-0 EINECS: 216-032-5 | Benzene-1,3-dimethanamine HAZARD CLASSIFICATION: [C] Corrosive RISK PHRASES: R34 | 20 – 30% |
| CAS: 25620-58-0 EINECS: 247-134-8 | Trimethylhexamethylenediamine HAZARD CLASSIFICATION: [Xn] Harmful RISK PHRASES: R37, R43 | 25 – 45% |
| | | |

Additional information: Balance of other ingredients are non-hazardous or less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).

4 First aid measures

4.1 Description of first aid measures

After inhalation:

If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if breathing difficulty continues.

After skin contact:

Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder contaminated clothing before re-use.

After eye contact:

If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation develops.

After swallowing:

If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.

4.2 Most important symptoms and effects, both acute and delayed.

Acute: This material is harmful if inhaled and may cause delayed lung injury. This material may cause irritation to the respiratory tract and skin and even burns. Product may cause an allergic skin reaction.

Chronic: Prolonged or repeated skin contact may cause dermatitis.

Target Organs: **Acute:** Eye, Respiratory System, Skin **Chronic:** Skin

Hazards: Pre-existing skin or respiratory system problems may be aggravated by exposure to this product.

4.3 Indication of any immediate medical attention and special treatment needed:

Treat symptoms and reduce over-exposure.

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5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Carbon dioxide, foam, dry chemical, halon, water spray, sand, limestone powder.

5.2 Special hazards arising from the substance or mixture:

This product is flammable above flash point indicated above.

5.3 Advice for firefighters:

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Personnel should be trained for spill response operations.

6.2 Environmental precautions: All work practices must be aimed at eliminating environmental contamination.

6.3 Methods and material for containment and cleaning up: Contain spill if safe to do so. Prevent entry into drains, sewers, and other waterways. Soak up with a non-combustible absorbent material and place in an appropriate container for disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

7 Handling and storage

7.1 Precautions for safe handling

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors/mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store between 5° and 300C and avoid contact with skin and eyes. Do not store near acids. Ground all transfer equipment. Hold bulk storage under a nitrogen blanket. This product should not come in contact with copper or copper-bearing alloys. Containers of this product must be properly labeled. Nitrogen purging of containers is ideal and good practice.

7.3 Specific end use(s): No information

8 Exposure controls/personal protection

Additional information about design of technical facilities:

Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above. Use local exhaust ventilation to control airborne vapor. Ensure eyewash/safety shower stations are available near areas where this product is used.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

Currently, International exposure limits are not established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

8.2 Exposure controls

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Personal protective equipment:

General protective and hygienic measures:

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

Respiratory protection: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

Protection of hands: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

Protective gloves

Material of gloves:

The selection of suitable gloves does not only depend on the material, but also on the quality, and varies from manufacturer to manufacturer.

Eye protection: Safety glasses or chemical goggles as appropriate to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.



Safety goggles



Body Protection:

Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:

Liquid

Color:

Water – white – pale straw colored liquid

Odor:

Mild epoxy odor

Odor threshold:

Not Available

pH-value:

Not Available

Change in condition

Melting point/Melting range:

No data available

Boiling point/Boiling range:

>200°C

Flash point:

>392°F (>200°C)

Flammability (solid, gaseous):

No data available

Auto/Self-ignition temperature:

Not established

Decomposition temperature:

No data available

Self-igniting:

No data available

Danger of explosion:

This product is a flammable liquid above flash point shown above.

Explosion limits

Lower:

Not established

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| | |
|--|------------------------------|
| Upper: | Not established |
| Vapor pressure at 20 °C: | <0.1 mmHg @ 25°C |
| Density at 20°C: | No data available |
| Relative density: | 8.3 pounds per gallon @ 25°C |
| Vapor density: | No data available |
| Evaporation rate: | No data available |
| Solubility in / Miscibility with Water: | Not Available |
| Specific Gravity 20oC: (Water = 1): | Not Available |
| Viscosity: | |
| Dynamic: | No data available |
| Kinematic: | No data available |
| Solvent content: | |
| Organic solvents: | No data available |
| VOC (EC) | No data available |
| 9.2 Other information | No data available |

10 Stability and reactivity

10.1 Reactivity

10.2 Chemical stability:

Product is stable
Thermal decomposition / conditions to be avoided: When heated to decomposition this product produces noxious gases such as CO, CO₂, NO_x, amines, ammonia and others.

10.3 Possibility of hazardous reactions:

No data available

10.4 Conditions to avoid:

Contact with incompatible materials

10.5 Incompatible materials:

Oxidizing agents and amines should be avoided as these will cause exothermic polymerization. Avoid extreme heat

10.6 Hazardous decomposition products:

Will not occur

11 Toxicological information

11.1 Information on toxicological effects:

Toxicity data is available for this product

Acute toxicity:

| | | | |
|--------------|-------|--------------|--------|
| Acute Dermal | LD 50 | >2,000 mg/kg | Rabbit |
| Acute Oral | LD 50 | 1,750 mg/kg | Rat |

Primary irritant effect: Contact with this product can be irritating to exposed skin, eyes and respiratory system.

Sensitization: This product is considered a skin sensitizer.

Additional toxicological information:

None of the ingredients are found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore is not considered to be, nor suspected to be a cancer-causing agent by these agencies.

CAS# 64742-53-6 is classified in the EU as a possible cancer causing material.

Reproductive toxicity information: No information concerning the effects of this product and its components on the human reproduction system.

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12 Ecological information

12.1 Toxicity

Aquatic toxicity: No data available

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available

12.4 Mobility in soil: No evidence is currently available on this product's effects on plants or animals.

Ecotoxicological effects:

Remark:

Additional ecological information: No data available

General notes:

Component Information: N/A

13 Disposal considerations

13.1 Waste treatment methods

Recommendations:

Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

RCRA WASTE CODE: D002

EU WASTE CODE: To Be Established

14 Transport information

14.1 UN-Number

DOT, ADR, IMDG, IATA: TGD: UN2735

14.2 UN proper shipping name

DOT: CAN: IMDG: IATA: ADN: Amines, Liquid, Corrosive, N.O.S. (Contains Benzene-1,3-Dimethanamine, Trimethylhexane-1,6-Diamine)

ADR

2735 Amines, Liquid, Corrosive, N.O.S. (Contains Benzene-1,3-Dimethanamine, Trimethylhexane-1,6-Diamine)

14.3 Transport hazard class(es)

DOT: CAN: IMDG: IATA: ADN:

Class:

8 Corrosive substances

Label:



ADR:

Class:

8 (C7) Corrosive substances

Label:



14.4 Packing group

DOT, ADR, IMDG, IATA: TGD: PG II


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| | |
|--|---|
| 14.5 Environmental hazards: | |
| Marine pollutant: | Yes |
| Special markings (ADR) |  |
| 14.6 Special precautions for user | Warning corrosive substances |
| Danger code (Kemler): | 80 |
| EMS Number: | F-A,S-B |
| 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: | No data available |
| Transport/Additional information | |
| ADR | |
| Limited quantities (LQ) | 5L |
| Excepted quantities (EQ) | Code: E1 Maximum net quantity per inner packaging: 30ml Maximum net quantity per outer packaging: 1000 ml |
| Transport category: | 3 |
| Tunnel restriction code: | E |
| ADR | |
| Tunnel restriction code | No data available |
| UN "Model Regulation": | UN2735 Amines, Liquid, Corrosive, N.O.S. (Contains Benzene-1,3-Dimethanamine, Trimethylhexane-1,6-Diamine), 8, II |

15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture. United States (USA)

SARA: This product is not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.: None

Section 355 (extremely hazardous substances): None of the ingredients are listed.

Section 313 (Toxic Release Inventory): None of the ingredients are listed.

TSCA (Toxic Substances Control Act): All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:
None of the ingredients is listed.

Canada

Canadian Domestic Substances List (DSL):
All ingredients are listed

Canadian Ingredient Disclosure list (limit 0.1%):
None of the ingredients are listed.

Canadian Ingredient Disclosure list (limit 1%):
None of the ingredients are listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Hazard statements:

- H361: Suspected of damaging fertility or the unborn child.
- H302 Harmful if swallowed.
- H332: Harmful inhaled.
- H315: Causes skin irritation.
- H317: May cause an allergic skin reaction.
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Precautionary statements

- P260: Do not breath dust/fume/gas/mist/vapors/spray
- P264: Wash hands thoroughly after handling
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- P271: Use only in well ventilated area.
- P273: Avoid release to the Environment
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P337+P313: If eye irritation persists: Get medical advice/attention.
- P370+P378: In case of fire: Use for extinction: CO2, powder or water spray.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P391: Collect spillage.
- P403+P235: Store in a well-ventilated place. Keep cool.
- P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Abbreviations and acronyms:

- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation.
- IATA: International Air Transport Association.
- ACGIH: American Conference of Governmental Industrial Hygienists.
- EINECS: European Inventory of Existing Commercial Chemical Substances.
- ELINCS: European List of Notified Chemical Substances.
- CAS: Chemical Abstracts Service (division of the American Chemical Society).
- NFPA: National Fire Protection Association (USA).
- HMIS: Hazardous Materials Identification System (USA).
- LC50: Lethal concentration, 50 percent.
- LD50: Lethal dose, 50 percent.