

# Safety Data Sheet

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

Printing Date: 10/22/2014

Revision: 10/22/2014

**Trade Name: E100-VR1™ - Clear UV Resistant Epoxy – Part A**

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

### 1.1 Product identifier

Trade Name: E100-VR1™ Part A

### 1.2 Article No.: E100-VR1™ Part A

### 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](http://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:** Not Classified

**Classification according to Directive 1999/45/EC:** [Xn] Harmful, [N] Dangerous to the Environment

#### Information concerning particular hazards for human and environment:

**Product Description:** This product is a water –white – pale straw colored liquid with a mild epoxy odor.  
**Health Hazards:** Mild to moderate eye, skin and respiratory system irritant. Harmful if swallowed. May cause skin sensitization

**Flammability Hazards:** This product is Flammable above its flash point of 340°F (170°C)

**Reactivity Hazards:** None known.

**Environmental Hazards:** The environmental effects of this product have not been investigated; however it is not expected to cause significant adverse effects.

**Emergency Considerations:** Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they are responding.

#### **Classification system:**

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

### 2.2 Label elements

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

**Hazard pictograms:**



GHS07



GHS09

**Signal Word:** Warning

**Hazard-determining components of labeling:** Bisphenol A based Epoxy Resin

#### **Hazard statements**

H312: Harmful in contact with skin

H317: May cause an allergic skin reaction

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### Precautionary statements

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: CO<sub>2</sub>, 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.

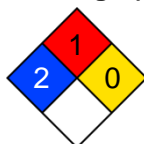
### Hazard description:

**Canadian WHMIS Classification:** This product is categorized as a Class D Division 2B Materials causing other toxic effects, as per the Controlled Product Regulations

### WHMIS-symbols:



### NFPA ratings (scale 0 - 4)



Health = 2  
 Fire = 1  
 Reactivity = 0

### HMIS-ratings (scale 0 - 4)

Health	2
Fire	1
Reactivity	0

Health = 2  
 Fire = 1  
 Reactivity = 0

### 2.3 Other hazards

No known

## 3 Composition/information on ingredients

### 3.2 Mixture.

**Description:** Mixture of substances listed below with nonhazardous additives.

### Hazardous components:

Identification #	Description	WT. %
CAS: 25085-99-8 EINECS: Not Listed Index Number:	<b>Bisphenol A based Epoxy Resin</b> HAZARD CLASSIFICATION: [Xn] Harmful, [Xi] Irritant RISK PHRASES: R21, R34, R43, R52/53	< 85-92%
CAS106-89-8 EINECS: 203-439-8 Index Number; 603-026-00-6	<b>1-CHLORO-2,3-EPOXYPROPANE</b> Skin Irritant 1B H314, Skin Sens. 1, H317 Muta. 2; T carc. Cat.2 R45-23/24/25 C R 34 Xi;; R 10, R43. Acute tox. 3, H350, H 331	< 8-15%

**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).

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#### 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.

###### 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 may cause irritation to skin and eyes. Product may cause an allergic skin reaction.

**Chronic:** Prolonged or repeated skin contact may cause allergic skin reaction or dermatitis.

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

**Hazards:** Pre-existing skin or eye 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.

#### 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 a flammable liquid above flash point shown.

##### 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: Evacuate area. Contain spill if safe to do so. Prevent entry into drains, sewers, and other waterways. Soak up spilled material with an absorbent material and pick up and place in an appropriate waste container for disposal. Do not mix with other wastes. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

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## 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 10 and 50 0C (45 -125 0F) and avoid contact with skin and eyes. Do not store near acids or amines. Ground all transfer equipment. Good general housekeeping procedure should be followed. Do not eat drink or smoke while using the material. Emergency showers should be readily available. Material may partially freeze in cold temperatures which will result in crystals and haziness. If this occurs rewarm and homogenize. Avoid contact with skin eyes. Vapors may irritate eyes and will irritate the skin. Use only with good ventilation and PPE. Keep container closed when not in use.

### 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

#### 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.

#### Penetration time of glove material:

The exact break through time has to be determined by the manufacturer of the protective gloves. DO NOT exceed the breakthrough time set by the 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.



Tightly sealed goggles

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#### 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 – clear to slight amber  
**Odor:** Mild epoxy odor  
**Odor threshold:** Not Available

<b>pH-value:</b>	Not Available
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	No data available
<b>Boiling point/Boiling range:</b>	>200°C
<b>Flash point:</b>	>392°F (>200°C)
<b>Flammability (solid, gaseous):</b>	No data available
<b>Auto/Self-ignition temperature:</b>	Not established
<b>Decomposition temperature:</b>	No data available
<b>Self-igniting:</b>	No data available
<b>Danger of explosion:</b>	This product is a flammable liquid above flash point shown above.
<b>Explosion limits</b>	
<b>Lower:</b>	Not established
<b>Upper:</b>	Not established
<b>Vapor pressure at 25 °C:</b>	<0.1 mmHg

<b>Density at 20°C:</b>	9.50 lbs. per gallon, specific gravity 1.14
<b>Relative density:</b>	No data available
<b>Vapor density:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Solubility in / Miscibility with Water:</b>	Not Available
<b>Specific Gravity 20oC: (Water = 1):</b>	Not Available
<b>Viscosity:</b>	
<b>Dynamic:</b>	No data available
<b>Kinematic:</b>	No data available
<b>Solvent content:</b>	
<b>Organic solvents:</b>	No data available
<b>VOC (EC)</b>	No data available
<b>9.2 Other information</b>	No data available

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### Trade Name: E100-VR1™ - Clear UV Resistant Epoxy – Part A

#### 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, CO<sub>2</sub>, hydrocarbons and soot.

##### 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	>20,000 mg/kg	Rabbit
Acute Oral	LD 50	>5,000 mg/kg	Rat

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

**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.

##### Reproductive toxicity information:

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

#### 12 Ecological information

##### 12.1 Toxicity

**Aquatic toxicity:** No evidence is currently available on this product's effects on aquatic life.

**Component Data:** CAS# 25085-99-8

Fathead Minnow LC50 3 mg/l 96 h

Toxicity to daphnia magna EC50 1.4 -1.7 mg/l 24 h

Bacteria: IC50 >42.6 mg/l 18 h

Biodegradation: 28 days 12% OECD

Bioaccumulation: Not readily biodegradable

##### 12.2 Persistence and degradability: No data available

##### 12.3 Bio accumulative 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:** No specific data is available for this product, however this product is expected to be readily biodegradable

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## 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:** None Listed

**EU WASTE CODE:** Not Listed

## 14 Transport information

### 14.1 UN-Number

**DOT: CAN:** NOT REGULATED  
**ADR: ADN: IMDG: IATA:** UN 3082

### 14.2 UN proper shipping name

**DOT: CAN:** NOT REGULATED  
**ADR: ADN: IMDG: IATA:** Environmentally hazardous Substance Liquid, N.O.S.  
 (Bisphenol A, epoxy resin)

### 14.3 Transport hazard class(es)

**DOT: CAN:** NOT REGULATED

**ADR: ADN: IMDG: IATA:**



### 14.4 Packing group

**DOT: CAN:** NOT REGULATED  
**ADR: ADN: IMDG: IATA:** PG III

### 14.5 Environmental hazards:

Product contains environmentally hazardous substances:  
 reaction Products of Epichlorohydrin and Bisphenol A)

**Marine pollutant:**

YES

**Special markings (ADR):**



Notes: marine pollutant (IMDG code 2.9.3) For air transport, see special provision A97 (ICAO/IATA): **For shipments within the USA: Not Regulated.**

### 14.6 Special precautions for user

**Danger code (Kemler):** not applicable

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<b>EMS Number:</b>	
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable
<b>Transport/Additional information</b>	none
<b>ADR Tunnel restriction code</b>	No data available
<b>UN "Model Regulation":</b>	No data available

### 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

### Relevant phrases:

- H312: Harmful in contact with skin
- H317: May cause an allergic skin reaction
- H412: Harmful to aquatic life with long lasting effects

### Precautionary statements

- 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: CO<sub>2</sub>, 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.

- 
- R21: Harmful in contact with skin
  - R34: Causes burns.
  - R43: May cause sensitization by skin contact
  - R52/53: Harmful to aquatic organisms may cause long-term adverse effects in the aquatic environment.

### 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.