

Safety Data Sheet

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

Printing Date: 12/29/2014

Revision: 12/29/2014

Trade Name: E100-FS4™ - Flexible Epoxy Basecoat – Part B

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

1.1 Product identifier

Trade Name: E 100-FS4™ - Part B

1.2 Article No.: E100-FS4™ - 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 1B
Acute Aquatic Toxicity Category 1
Chronic Aquatic Toxicity Category 2

Classification according to Directive 1999/45/EC:

[Repr Cat 3, [Xn] Harmful, [C] Corrosive, [N] Dangerous to the Environment

Information concerning particular hazards for human and environment:

Product Description: This product is a pale straw - yellow colored liquid with mild ammonia odor.

Health Hazards: Harmful if swallowed; Corrosive, CNS depressant; Severe Eye Irritant, Severe Respiratory Irritant, May cause skin sensitization

Flammability Hazards: This product is Flammable above its flash point of 205°F (96°C)

Reactivity Hazards: None known.

Environmental Hazards: This product contains ingredients that are toxic to aquatic life.

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:



GHS05



GHS07



GHS08



GHS09

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Signal Word: Danger

Hazard Statements

- H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled.
- H314: Causes severe skin burns and eye damage.
- H317: May cause allergic skin reaction.
- H361: Suspected of damaging fertility or the unborn child.
- H373A: May cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary statements

- P201: Obtain special instructions before use
- P202: Do not handle until all safety precautions have been read and understood.
- 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.
- P272: Contaminated work clothing should not be allowed out of the work place.
- P273: Avoid release to the Environment
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P281: Use personal protective equipment as required.

Response:

- P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P301+P330+P331: IF SWALLOWED: rinse mouth. Do not induce vomiting.
- P303+P361+P353: IF ON SKIN (or hair): Remove/Takeoff immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313: IF exposed or concerned, Get medical advice/attention.
- P310: Immediately call a POISON CENTER or doctor/Physician.
- P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
- P363: Wash contaminated clothing before use.
- 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.

Storage:

- P403+P235: Store in a well-ventilated place. Keep cool.
- P405: Store locked up.

Disposal:

- 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:



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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
Reactivity = 0

2.3 Other hazards not otherwise classified;

Harmful in contact with skin
Harmful if swallowed
Corrosive

3 Composition/information on ingredients

3.2 Mixture.

Description: Mixture of substances listed below with nonhazardous additives.

Hazardous components:

Identification #	Description	WT. %
CAS: 1761-71-3 EINECS:	Methylenebis(cyclohexanamine, 4,4'- HAZARD CLASSIFICATION: [Xn] Harmful RISK PHRASES: R37, R43	10-55%
CAS: 84852-15-3 EINECS:	Nonyl Phenol HAZARD CLASSIFICATION: Repr Cat 3, [Xn] Harmful, [C] Corrosive, [N] Dangerous to the Environment RISK PHRASES: R22, R62, R63, R34, R50/53	45- 90%

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.

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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.

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 may generate ammonia gas. May generate toxic nitrogen oxide gasses. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from firefighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Downwind personnel must be evacuated. Burning produces noxious and toxic fumes.

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: Use self-contained breathing apparatus and chemical protective clothing. 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

Do not store near acids.

Storage:

Requirements to be met by storerooms and receptacles:

Keep containers tightly closed in a dry, cool and well-ventilated place.

Do not store in reactive metal containers

7.3 Specific end use(s): No information

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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.



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: Light yellow
Odor: Amine like
Odor threshold: Not Available

pH-value: 10

Change in condition

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Melting point/Melting range:	No data available
Boiling point/Boiling range:	>432°F (222°C)
Flash point:	>303°F (>150.56°C)
Flammability (solid, gaseous):	Not applicable
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 applicable
Upper:	
Vapor pressure at 20 °C:	<2.00 mmHg @ 70°F (21°C)
Density at 20°C:	61.179 lb/ft ³ (0.98 g/cm ³)@70°F (21°C)
Relative density:	0.98 (water=1)
Vapor density:	No data available
Evaporation rate:	No data available
Solubility in / Miscibility with Water:	Slightly soluble.
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)	0.00 VOC
9.2 Other information	No data available

10 Stability and reactivity

10.1 Reactivity

10.2 Chemical stability: Product is stable under normal conditions.

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 (see 10.5 below)

10.5 Incompatible materials: Sodium Hypochlorite, Organic acids (citric, acetic etc.), Mineral acids, product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Oxidizing agents and amines should be avoided as these will cause exothermic polymerization. Material reactive with hydroxyl compounds. Avoid extreme heat

10.6 Hazardous decomposition products: nitric acid, ammonia, nitrogen oxides (NO_x), nitrogen oxide can react with water vapors to form corrosive nitric acid.

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11 Toxicological information

11.1 Information on toxicological effects: Toxicity data is available for this product. **Acute toxicity:**

Likely routes of exposure:

Effects to Eye: Causes eye burns. May cause blindness. Severe eye irritation.
 Effects on skin: Harmful in contact with skin. Causes skin burns. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
 Inhalation effects: can cause severe eye, skin and respiratory tract burns.
 Ingestion effects: Harmful if swallowed. If ingested, severe burns of the mouth and throat as well as a danger of perforation of the esophagus and the stomach.
 Symptoms: No data available.

Acute toxicity:

Acute oral toxicity: LD50:>1,620 mg/kg Species: Rat. Method: Estimated.
 Inhalation: LC50 (1 h):> 20 mg/l Species: Rat Method: Estimated.
 Acute dermal Toxicity: LD50: > 1,000 mg/kg. Species: Rabbit. Method: Estimated
 Skin corrosion/irritation: Corrosive in an in vitro test.
 Serious eye damage/eye irritation: Severe eye irritation.
 Sensitization: May cause sensitization by skin contact.

Chronic toxicity or effects from long term exposure:

Carcinogenicity: No data available.
 Reproductive toxicity: No data available on the product itself.
 Germ cell mutagenicity: The product or component may be mutagenic. The data is inconclusive.
 Specific target organ systemic Toxicity :
 (Single exposure): No data available.
 (Repeated exposure): No data available.
 Aspiration hazard: No data available.

Delayed and immediate Effects and Chronic Effects from short term and long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP, and /or OSHA in concentrations of 0.1% or greater. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas. Eye disease., Skin disorders and allergies.

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:

nonyl phenol CAS# 1761-71-3

Acute Fish Toxicity 96 hr LC50 0.13 mg/l fathead minnow (Pimephales promelas)

48 hr EC50 0.19 mg/l Daphnia Magna

Harmful to aquatic organisms. May cause long term damage to environment

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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: D002

EU WASTE CODE: To Be Established

14 Transport information

14.1 UN-Number

DOT: CAN: ADR: ADN: IMDG: IATA: **UN2735**

14.2 UN proper shipping name

DOT: CAN: ADN: IMDG: IATA: **Amines Liquid Corrosive N.O.S. (Contains 4,4'-Methylenebiscyclohexanamine, Nonyl Phenol)**

ADR: **Amines Liquid Corrosive N.O.S. (Contains 4,4'-Methylenebiscyclohexanamine, Nonyl Phenol)**

14.3 Transport hazard class(es)

DOT: CAN: ADN: IMDG: IATA:

LABELS:



CLASS:

8 corrosive substances

14.3 Transport hazard class(es)

ADR

LABELS:



CLASS:

8 (C7) Corrosive substances

IATA

LABELS:



CLASS:

14.4 Packing group

DOT, ADR, IMDG, IATA:TGD

PG II

14.5 Environmental hazards:

Marine pollutant:

Yes

Special marking (ADR)



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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
UN "Model Regulation":	UN 2735 Amines, Liquid, Corrosive, N.O.S. (Contains 4,4'-Methylenebiscyclohexanamine, Nonyl Phenol) 8, III

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.

Toxic substance control act: (TSCA) 12 (b) Component(s):

USA	TSCA	Included on inventory
EU	EINECS	Included on inventory (EINECS inventory no longer polymer).
Canada	DSL	Included on inventory
Australia	AICS	Included on inventory
Japan	ENCS	Included on inventory
South Korea	ECL	Included on inventory
China	SEPA	Included on inventory
Philippines	PICCS	Included on inventory

15.2 Chemical safety assessment:

EPA SARA Title III section 312 (40 CFR 370) Hazard classification: Acute health hazard
Components above 'de minimus' level > NONE.

US. California safe drinking water & Toxic Enforcement Act Proposition 65)

This product does not contain any chemicals known to the state of California to cause cancer, birth defects or any other harm.

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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.
- H400: Vary toxic to aquatic life.
- H401: Very toxic to aquatic life with long lasting effects.

Precautionary statements

- P201: Obtain special instructions before use
- P202: Do not handle until all safety precautions have been read and understood.
- P260: Do not breathe dust/fume/gas/mist/vapors/spray
- P264: Wash hands thoroughly after handling
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- P391: Collect spillage.

Storage:

- P403+P235: Store in a well-ventilated place. Keep cool.
- P405: Store locked up.

Disposal:

- 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.