

Safety Data Sheet

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

Printing Date: 1/8/2015

Revision: 1/8/2015

Trade Name: E100-NV5™ High Performance Novolac – Part B

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

1.1 Product identifier

Trade Name: E100-NV5™ - Part B

1.2 Article No.: E100-NV5™ - 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, H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
Acute Inhalation Toxicity Category 4, H322 Harmful if inhaled.
Acute Oral Toxicity Category 4, H302 Harmful if swallowed.
Skin Sensitization Category 1, H317 May cause allergic skin reaction
Skin Corrosion/Irritation Category 1B, H314 Causes severe skin burns and eye damage.
Acute Aquatic Toxicity Category 1, H400 Very Toxic to Aquatic life.
Chronic Aquatic Toxicity Category 1, H410 Vary toxic to aquatic life with long lasting effects.

Classification according to Directive 1999/45/EC:



C; Corrosive
R34: causes Burns



Xn; harmful
Xi; Sensitizing
R43; May cause skin sensitization by skin contact.



N: Dangerous for the environment.
R50/53; Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:

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

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

Flammability Hazards: Not Applicable

Reactivity Hazards: None known.

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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 CLP regulations, 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

Signal Word: Danger

Hazard-determining components of labeling:

Contains m-phenylenebis(methylamine)

4-nonylphenol, branched

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Hazard statements:

H302+H332: harmful if swallowed or if inhaled.

H314: Causes severe skin burns and eye damage

H317: May cause allergic skin reaction.

H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.

H410: 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

P285: In case of inadequate ventilation, wear respiratory 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+P303+P352+P353+P361: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Wash/rinse skin with plenty of soap and water and shower.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy and safe to do. Continue rinsing.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P301+P330+P331: IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

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:

D1B – Toxic material causing immediate and serious toxic effects.

D2A – Very Toxic material causing other toxic effects.

E – Corrosive material

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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
Reactivity = 0

HMIS Long term Health Hazard Substances:

84852-15-3 4-nonylphenol, branched

2.3 Other hazards

Results or PBT and vPvB assessment

PBT: N/A

vPvB: N/A

3 Composition/information on ingredients

3.2 Mixture.

Description: Mixture of substances listed below with nonhazardous additives.

Hazardous components:

Identification #	Description	WT. %
CAS: 84852-15-3 EINECS: 284-325-5 Index Number; 601-053-00-8	Phenol, 4-Nonyl-, Branched HAZARD CLASSIFICATION: [C] Corrosive. [N] Dangerous to the Environment Repr. 2 H361 fd Skin Corr. 1B, H314, Aquatic Acute 1m H400, Aquatic Chronic 1, H410, Acute tox.4 H302 RISK PHRASES: C R34, Xn R22-62-63, N R50/53	25 - 50%
CAS: 1477-55-0 EINECS: 216-032-5	m-phenylenebis(methylamine) HAZARD CLASSIFICATION: [C] Corrosive Skin Corr. 1B H314, Acute Tox. 4 H302/H332 RISK PHRASES: C R34, Xn R22	25 - 50%
CAS: 2855-13-2 EINECS: 220-666-8 Index Number; 612-067-00-9	Isophorone Diamine HAZARD CLASSIFICATION: C [Xn] Harmful Skin Corr. 1B H302, Acute tox. 4 H302/H312, Skin Sens. 1, H317, Aquatic Chronic 3, H412. RISK PHRASES: C R34, Xn R21/22 Xi R43	10 – 30%
CAS: 503-29-7 EINECS: 207-963-8	Azetidine HAZARD CLASSIFICATION: Flam Liq. 2, H225, Skin Corr. 1B H314, Dangerous to the Environment RISK PHRASES: C R34, F R11	< 20%

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). Additional info see Section 11.

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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 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.

Coughing, Allergic reactions, breathing difficulty, gastric or intestinal disorders, Dizziness

Hazards:

Danger of impaired breathing
Danger of gastric perforation.

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

If swallowed, gastric irrigation with added, activated carbon.

Medical supervision for 48 hours.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, Carbon dioxide, foam, dry chemical, halon, water spray, sand, limestone powder. Fight fires with water spray or alcohol resistant foam. NOTE: No unsuitable extinguishing agents known.

5.2 Special hazards arising from the substance or mixture:

Formation of toxic gasses is possible during heating or in case of fire.

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.

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6 Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures:** Personnel should be trained for spill response operations. Wear full protective suit and self-contained NIOSH/ approved breathing apparatus
- 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 such as sand, diatomite, acid binders, universal binders, or saw dust 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 in cool location and avoid contact with skin and eyes. Do not store near oxidizing or acidic material. Do not store with alkalis (caustic solutions). Store away from all food stuffs. Keep product in tightly sealed containers. .
- 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.

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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:

Colorless to pale straw

Odor:

Amine like

Odor threshold:

Not determined

pH-value:

Not determined

Change in condition

Melting point/Melting range:

No data available

Boiling point/Boiling range:

>477°F (247°C)

Flash point:

>199°F (>93°C)

Flammability (solid, gaseous):

Not applicable

Decomposition temperature:

Not determined

Self-igniting:

Product is not self-igniting

Danger of explosion:

Product does not present an explosion hazard

Explosion limits

Lower:

2.1 Volume%

Upper:

10.5 Volume%

Vapor pressure at 20 °C:

<0.1 hPa

Density at 20°C:

1.00g/cm³

Relative density:

8.33 pounds per gallon @ 25°C (SP 0.972)

Vapor density:

No data available

Evaporation rate:

No data available

Solubility in / Miscibility with Water:

Specific Gravity 20oC: (Water = 1):

Slightly soluble

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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: No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions: Reacts with catalysts, oxidizing agents, and strong alkali.

10.4 Conditions to avoid: store away from oxidizing agents.

10.5 Incompatible materials: as listed in this section

10.6 Hazardous decomposition products: carbon monoxide and carbon dioxide.

11 Toxicological information

11.1 Information on toxicological effects: Toxicity data is available for this product

Acute toxicity:

LD/LC50 values relevant for classification:

1477-55-0 m-phenylenebis (methylamine)

Oral LD50 1040 mg/kg (rat)

Inhalative LC504h 2,4 mg/l (rat)

2855-13-2 3-aminomethyl-3,5 5-trimethylcyclohexylamine

Oral LD50 1030 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. Also can be a sensitizer thru inhalation by prolonged exposure

Additional toxicological information:

The product shows the following dangers according to the calculation method of the general EU Classification guidelines for preparations as issued in the latest version:

Harmful

Corrosive

irritant

Swallowing will lead to a strong caustic effect on the mouth and throat and to the danger of perforation of the esophagus and stomach.

Sensitization: Sensitization is possible by inhalation and/or dermal contact.

Repeated dose toxicity: Repeated exposures may result in skin and /or respiratory sensitivity.

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12 Ecological information

12.1 Toxicity

Aquatic toxicity: No data available This material is harmful to the environment

12.2 Persistence and degradability: This material is partly biodegradable. Significant residuals remain.

12.3 Bioaccumulative potential: May be accumulated in organism.

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

Ecotoxicological effects:

Remark: Very toxic for fish.

Additional ecological information: No data available

General notes:

Water hazard class 3 (German regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewerage system, even in small quantities.

Must not reach sewerage water or drainage ditch undiluted or unneutralized.

Danger to drinking water if even extremely small quantities leak into the ground

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms.

Results of PBT and vPvB assessment: 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.

Recommended cleansing agents: Solvent naphtha

RCRA WASTE CODE: D002

EU WASTE CODE: To Be Established

14 Transport information

14.1 UN-Number

DOT: CAN: ADN: ADR: IMDG: IATA: UN 2735

14.2 UN proper shipping name

DOT: CAN: ADN: IATA: Polyamines, Liquid, Corrosive, N.O.S. (m-phenylenebis(methylamine), azetidine)

ADR: 2735, Polyamines, Liquid, Corrosive, N.O.S. (m-phenylenebis(methylamine), azetidine)

IMDG: Polyamines, Liquid, Corrosive, N.O.S. (m-phenylenebis(methylamine), azetidine), Marine Pollutant





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<p>14.3 Transport hazard class(es) DOT: CAN: IMDG:</p> <p>CLASS:</p> <p>LABELS:</p>	<p>8 Corrosive substances</p> 
<p>ADR:</p> <p>CLASS:</p> <p>LABELS:</p>	<p>8 (C7) Corrosive substances</p> 
<p>14.4 Transport hazard class(es) IATA</p> <p>CLASS:</p> <p>LABELS:</p>	<p>8 Corrosive substances</p> 
<p>14.5 Packing group DOT: CAN: ADR: ADN: IMDG: IATA:</p>	<p>PG III</p>
<p>14.5 Environmental hazards: Marine pollutant:</p> <p>Special marking (ADR)</p>	<p>YES</p> 
<p>14.7 Special precautions for user Danger code (Kemler): EMS Number: Segregation groups</p>	<p>Warning Corrosive substances 80 F-A,S-B Alkalis</p>
<p>14.8 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</p>	<p>Not Applicable</p>
<p>Transport/Additional information ADR Limited Quantities (LQ) Excepted Quantities (EQ)</p> <p>Transport category Tunnel restriction code</p>	<p>5L Code E1 Maximum net quantity per inner packaging 30 ml Maximum net quantity per outer packaging 1000ml</p> <p>3 E</p>

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UN "Model Regulation":	2735, Polyamines, Liquid, Corrosive, N.O.S. (m-phenylenebis(methylamine), azetidide), Environmentally hazardous, 8 III
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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.

Chemicals known to cause reproductive toxicity for males or females:

None of the ingredients listed

Chemicals known to cause development toxicity:

None of the ingredients listed

Carcinogenic categories:

EPA, IARC, TLV, NIOSH-Ca, OSHA-Ca, :

None of the ingredients 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.

Canadian Ingredient Disclosure list (limit 0.1%)

None of the ingredients listed.

Canadian Ingredient Disclosure list (limit 1%)

1477-55-0 m-phenylenebis (methylamine)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

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.
- 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.

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.