## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

| | |
|---|---|
| **Product Identifier:** | ECU-4000 (B) |
| **Other means of identification:** | None |
| **Recommended use:** | Resin |
| **Manufactured by:** | Elite Coatings Canada Inc.<br>9805 Horton Road SW<br>Calgary, AB T2V 2X5<br>Canada |
| **Email:** | info@elitecoatings.ca |
| **Prepared by:** | The Health, Safety and Environmental Department of Elite Coatings Canada Inc. |
| **Telephone number of preparer:** | +1 (403) 397 6355 |
| **Emergency telephone number:** | **24-Hour Emergency Telephone Number Canada (CANUTEC): +1 (613) 996-6666** |

## SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification of hazardous product**

- Acute Toxicity, Inhalation (Category 4)
- Aspiration Hazard (Category 1)
- Serious eye damage/irritation (Category 1)
- Skin Corrosion/irritation (Category 1)
- Skin Sensitization (Category 1)
- Reproductive toxicity (Category 2)
- Carcinogenicity (Category 2)
- Specific target organ toxicity, single exposure; Narcotics effects (Category 3)
- Specific target organ toxicity, repeated exposure (Category 2)
- Hazardous to the aquatic environment – acute (Category 3)
- Hazardous to the aquatic environment – chronic (Category 3)

**GHS Label Elements**
**Hazard Pictograms/symbols**

**Signal Word:** DANGER

**Hazard and Precautionary Statements:**

- **H332** Harmful if inhaled
- **H304** May be fatal if swallowed and enters airways
- **H314** Causes severe skin burns and eye damage
- **H317** May cause an allergic skin reaction
- **H351** Suspected of causing cancer
- **H336** May cause drowsiness or dizziness
- **P373** May cause damage to organs through prolonged or repeated exposure
- **P361** Suspected of damaging fertility or the unborn child
- **P412** Harmful to aquatic life with long lasting effects

**P201** Obtain special instructions before use. **P202** Do not handle until all safety precautions have been read and understood. **P260** Do not breathe dusts or mists. **P314** Get medical advice/attention if you feel unwell. **P280** Wear protective gloves/protective clothing/eye protection/face protection. **P308 + P313** IF exposed or concerned: Get medical advice/attention. **P272** Contaminated work clothing should not be allowed out of the workplace. **P271** Use only outdoors or in a well-ventilated area. **P264** Wash with plenty of water and soap thoroughly after handling. **P305 + P351 + P338 IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. **P303 + P361 + P353 IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Rinse skin with water [shower]. **P333 +P313** If skin irritation or rash occurs: Get medical advice/attention. **P363** Wash contaminated clothing before reuse. **P304 + P340 IF INHALED:** Remove person to fresh air and keep comfortable for breathing. **P310** Immediately call a POISON CENTER or doctor/physician. **P301 + P330 IF SWALLOWED:** Rinse mouth. **P331** Do NOT induce vomiting. **P362 + P364** Take off contaminated clothing and wash before reuse. **P273** Avoid release to the environment. **P405** Store locked up. **P501** Dispose of contents/container into safe container in accordance with local, regional or national regulations.

**Other Hazards Known:** None known
**GHS Special Labeling:** None known

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | CAS Number | Concentration (%) |
|---|---|---|
| 1,3,3-trimethyl-N-(2-methylpropylidene)-5-[(2-methylpropylidene)amino]cyclohexanemethylamine | 54914-37-3 | 55 – 75 % |
| N-butyl-2-(1-ethylpentyl)-1,3-oxazolidine | 165101-57-5 | 10 – 20 % |
| 4-methy-1,3-dioxolan-2-one | 108-32-7 | 10 – 20 % |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | 1 – 5 % |
| xylene | 1330-20-7 | 0 – 1% |
| Ethyl benzene | 100-41-4 | 0 – 1% |

| | | |
|---|---|---|
| Toluene | 108-88-3 | 0 – 1% |
| octamethylcyclotetrasiloxane | 556-67-2 | 0 – 1% |

## SECTION 4. FIRST AID MEASURES

| | |
|---|---|
| **Inhalation** | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. |
| **Ingestion** | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
| **Skin Contact** | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| **Eye Contact** | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. |

**Most important symptoms and effects (acute and delayed)**
May cause an allergic skin reaction. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing, shortness of breath, headaches, and nausea. High concentrations of vapors may be irritating to the respiratory tract. May cause headaches, dizziness, nausea and vomiting. May cause CNS depression (drowsiness, loss of coordination and fatigue). May irritate the digestive tract and cause same symptoms as inhalation; high dosages may result in unconsciousness.

**Indication of any immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**General Information**
If exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure the medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing media**

- **Suitable extinguishing media:** In case of fire: Water fog. Alcohol-resistant foam. Dry chemical powder. Carbon dioxide ($CO_2$)
- **Unsuitable extinguishing media:** No information available.

**Specific hazards arising from the hazardous product:** During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for fire-fighting:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillage cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
**Large spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.
**Small Spills:** Wipe up with absorbent material. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental Precautions**
Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## SECTION 7. HANDLING AND STORAGE

**Precautions for safe handling**
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust or mist. Do not get in eyes, on skin, or on clothing. Do not get this material in contact with eyes. DO not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Should be handled in closed systems, if possible. Pregnant or breastfeeding women must not handle this product. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**
Store locked up. Store in original tightly closed container. Keep container tightly closed. Store away from incompatible materials (see Section 10 of the SDS).

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Control Parameters ( biological limit values or exposure limit values and source of those values**
Exposure limits:

| CAS # | Value type (Form of exposure) | Control parameters / permissible concentrations | Basis |
|---|---|---|---|
| CAS 54914-37-3 | No exposure limit value known. | | |
| CAS 165101-57-5 | No exposure limit value known. | | |

| | | | |
|---|---|---|---|
| CAS 108-32-7 | No exposure limit value known. | | |
| CAS 64742-47-8 | TWA<br>TWA<br>TWA<br>TWA (mist)<br>TWA (mist) | 500 ppm /2000 mg/m3<br><br>200 mg/m3 (total hydrocarbon vapor)<br>400 ppm /1600 mg/m3<br>5 mg/m3<br>5 mg/m3 | OSHA Z-1<br>ACGIH<br>OSHA P0<br>OSHA Z-1<br>OSHA P0 |
| CAS 1330-20-7 | TWA<br>STEL<br>TWA<br>TWA<br>STEL | 100 ppm /435 mg/m3<br>150 ppm /655 mg/m3<br>100 ppm /435 mg/m3<br>100 ppm<br>100 ppm | OSHA Z-1<br>OSHA P0<br>OSHA P0<br>ACGIH<br>ACGIH |
| CAS 100-41-4 | TWA<br>TWA<br>STEL | 100 ppm /435 mg/m3<br>100 ppm /435 mg/m3<br>125 ppm /545 mg/m3 | OSHA Z-1<br>OSHA P0<br>OSHA P0 |
| CAS 108-88-3 | TWA<br>TWA<br>CEIL<br>Peak<br>TWA<br>STEL | 20 ppm<br>200 ppm<br>300 ppm<br>500 ppm<br>100 ppm /375 mg/m3<br>150 ppm /560 mg/m3 | ACGIH<br>OSHA Z-2<br>OSHA Z-2<br>OSHA Z-2<br>OSHA P0<br>OSHA P0 |
| CAS 556-67-2 | TWA | 10 ppm | US WEEL |

**Engineering Controls**
Provide good local exhaust ventilation to control vapour/mist. Eye wash facilities and emergency showers must be available when handling this product.

**Personal Protective Equipment**
Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator. Wear appropriate chemical resistant protective gloves. Wear tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists. Wear appropriate protective clothing. When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Eyewash fountains and safety showers are recommended in the work area.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| **Physical State/ Appearance/ Color:** | Transparent liquid, Clear – Pale yellow | **Vapour Pressure:** | Not available |
| **Odour:** | Slight amine odour | **Vapour Density:** | Not available |

| | | | |
|---|---|---|---|
| **Odour threshold:** | Not available | **Relative Density:** | 0.91 (g/ml) |
| **pH:** | Not available | **Solubility:** | Reacts with water |
| **Melting/freezing point:** | Not available | **Partition coefficient-n-octanol/water:** | Not available |
| **Initial boiling point/range:** | 240-243°C | **Auto-ignition temperature:** | >200°C |
| **Flash point (closed cup):** | 85 °C | **Decomposition temperature:** | Not available |
| **Evaporation rate:** | Not available | **Viscosity:** | 100 – 200 cps |
| **Flammability (solids and gases):** | Not available | **VOC:** | Not available |
| **Upper and lower flammability/explosive limits** | 21 vol. % @ 200°C<br>4.7 vol. % @ 200°C | **Other:** | None known |

## SECTION 10. STABILITY AND REACTIVITY

**Reactivity:** This is not a stable product and it reacts with moist air.
**Chemical Stability:** This product is stable under normal conditions.
**Possibility of hazardous reactions:** None under normal processing.
**Conditions to Avoid:** Extreme heat, sparks and open flames. Incompatible materials, oxidizers and oxidizing conditions. Moisture before application.
**Incompatible materials:** Oxidizing agents. Strong acids and alkalis. Water.
**Hazardous decomposition products:** Oxides of carbon (CO, CO2). Oxides of nitrogen (NOx), Isophorone diamine. Isobutyraldehyde.

## SECTION 11. TOXICOLOGICAL INFORMATION

**Likely routes of exposure (inhalation, ingestion, skin and eye contact):**
Inhalation: Harmful if inhaled. Aspiration: May be fatal if swallowed and enters airways. Skin and eye contact: May cause an allergic skin reaction. Causes severe skin burns. Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics:**
Contains ingredients which are extremely destructive to tissues of the mucous membranes and upper respiratory tract, eyes, and skin. Burning pain and severe corrosive skin damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing, shortness of breath, headaches, and nausea. High concentrations of vapors may be irritating to the respiratory tract. May cause headaches, dizziness, nausea and vomiting. May cause CNS depression (drowsiness, loss of coordination and fatigue). May irritate the digestive tract and cause same symptoms as inhalation; high dosages may result in unconsciousness.

**Delayed and immediate effects (chronic effects from short- term and long-term exposure):**

- **Skin Sensitization** – Sensitization after skin contact possible;
- **Respiratory Sensitization** – No data available;

- **Germ Cell Mutagenicity** – No data available;
- **Carcinogenicity** – Ethylbenzene (CAS 100-41-4) is an IARC group 2B carcinogen based on animal studies;
- **Reproductive Toxicity** – Suspected of damaging fertility or the unborn child;
- **Specific Target Organ Toxicity — Single Exposure** – May cause drowsiness or dizziness;
- **Specific Target Organ Toxicity — Repeated Exposure** – May cause damage to organs through prolonged or repeated exposure;
- **Aspiration Hazard** – Possible;
- **Health Hazards Not Otherwise Classified** – No data available.

**Numerical measures of toxicity (ATE; $LD_{50}$ & $LC_{50}$):**

| | |
|---|---|
| CAS 54914-37-3 | $LD_{50}$, Oral – Rat – 4150 mg/kg<br>$LD_{50}$, Dermal- Rat – >5000 mg/kg |
| CAS 165101-57-5 | No data available |
| CAS 108-32-7 | $LD_{50}$, Oral – Rat – 29000 mg/kg<br>$LD_{50}$, Dermal- Rabbit – >3000 mg/kg |
| CAS 64742-47-8 | $LD_{50}$, Dermal- Rabbit – >3160 mg/kg |
| CAS 1330-20-7 | $LD_{50}$, Oral – Rat – 3523 mg/kg<br>$LC_{50}$, Inhalation(4h) – Rat – 5000 ppm<br>$LD_{50}$, Dermal- Rabbit – 1700 mg/kg |
| CAS 100-41-4 | $LD_{50}$, Oral – Rat – 3500 mg/kg<br>$LD_{50}$, Dermal- Rabbit – 5510 mg/kg |
| CAS 108-88-3 | $LD_{50}$, Oral – Rat – 2600 mg/kg |
| CAS 556-67-2 | No data available |

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity (aquatic and terrestrial information):**
Harmful to aquatic life with long lasting effects.

| Product | Species | Result |
|---|---|---|
| CAS 54914-37-3 | $LC_{50}$ Danio rerio (fish)<br>$EC_{50}$ Daphnia magna (water flea)<br>$EC_{50}$ Desmodesmus Subspicatus (algae) | >100 mg/l – 96 h<br>22.2 mg/l – 48 h<br>73.6 mg/l – 72 h |
| CAS 165101-57-5 | No data available | |
| CAS 108-32-7 | $LC_{50}$ Leuciscus idus (fish)<br>$EC_{50}$ Daphnia magna (water flea)<br>$EC_{50}$ Desmodesmus Subspicatus (algae)<br>$EC_{50}$ (microtox) | 5300 mg/l – 96 h<br>>500 mg/l – 48 h<br>>500 mg/l – 72 h<br>>10000 mg/l – 17 h |

| | | |
|---|---|---|
| CAS 64742-47-8 | No data available | |
| CAS 1330-20-7 | No data available | |
| CAS 100-41-4 | No data available | |
| CAS 108-88-3 | No data available | |
| CAS 556-67-2 | No data available | |

**Persistence and degradability:** Not readily biodegradable.
**Bioaccumulative potential:** No data available.
**Mobility in soil:** No data available.
**Other adverse effects:** No data available.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Information on safe handling for disposal/methods of disposal/contaminated packaging:**
Dispose of contents/container into safe container in accordance with local, regional or national regulations.

## SECTION 14. TRANSPORT INFORMATION

**UN Number; Proper shipping name; Class(es); Packing group (PG) of the TDG Regulations:**
UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (blocked diamine); CLASS 8; PG III

**Special Precautions (transport/conveyance):**
May also be shipped as a LIMITED QUANTITY in accordance with TDG (quantities of 5L or less per individual packaging)

**UN Number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime):**
UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (blocked diamine); CLASS 8; PG III

**UN Number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air):**
UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (blocked diamine); CLASS 8; PG III

**Environmental hazards (IMDG or other):** None known

**Bulk transport (usually more than 450L in capacity):** Possible.

## SECTION 15. REGULATORY INFORMATION

**Safety/health Canadian regulations specifics:**
Refer to section 2 for the appropriate classification. This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR).

**Environmental Canadian regulations specifics:**
Refer to section 3 for ingredient(s) of the DSL.

**Safety/health/environmental outside regulations specifics:**
None

## SECTION 16. OTHER INFORMATION

**Disclaimer:**

**References:** Safety Data Sheets from manufacturer/supplier & from Canadian Centre for Occupational Health and Safety, CCOHS.

| **Abbreviations:** | |
|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| ATE | Acute toxicity estimate |
| CAS | Chemical Abstract Service |
| DSL | Domestic Substance List |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods Code |
| LC | Lethal concentration |
| LD | Lethal Dosage |
| NIOSH | National Institute for Occupational Safety and Health |
| NTP | National Toxicology Program (U.S.A.) |
| OSHA | Occupational Safety and Health Administration (U.S.A.) |
| PEL | Permissible Exposure Limit |
| STEL | Short-term Exposure Limit |
| TDG | Transport of dangerous goods in Canada |
| TLV | Threshold Limit Value |
| TSCA | Toxic Substances Control Act |
| TWA | Time Weighted Average |
| WHMIS | Workplace Hazardous Materials Information System |

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