

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier:	EC-FCU-CF (B)
Other means of identification:	None
Recommended use:	Concrete crack filler, fast cure hardener
Manufactured by:	Elite Coatings Canada Inc. 9805 Horton Road SW Calgary, AB T2V 2X5 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

- Flammable liquids (Category 4)
- Aspiration hazard (Category 1)
- Carcinogenicity (Category 2)
- Acute Toxicity, Inhalation-mist (Category 4)
- Skin Sensitization (Category 1)
- Skin Corrosion/irritation (Category 2)
- Serious eye damage/irritation (Category 2B)
- Respiratory sensitization (Category 1)
- Specific target organ toxicity-single exposure (Category 3 – respiratory tract irritation)
- Specific target organ toxicity-single exposure (Category 3 – central nervous system)
- Specific target organ toxicity-repeated exposure (Category 2 – by inhalation)

GHS Label Elements

Hazard Pictograms/symbols



Signal Word: DANGER

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Hazard and Precautionary Statements:

- **H227** Combustible liquid
- **H304** May be fatal if swallowed and enters airways
- **H351** Suspected of causing cancer
- **H319** Causes serious eye irritation
- **H315** Causes skin irritation
- **H332** Harmful if inhaled
- **H334** May cause allergy or asthma symptoms or breathing difficulties if inhaled
- **H317** May cause an allergic skin reaction
- **H335** May cause respiratory irritation
- **H336** May cause drowsiness or dizziness
- **H373** May cause damage to organs (olfactory organs) through prolonged or repeated exposure

P201 Obtain special instructions before use. **P202** Do not handle until all safety precautions have been read and understood. **P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. **P370 + P378** In case of fire: Use foam, dry chemical, carbon dioxide or water fog to extinguish. **P280** Wear protective gloves/ protective clothing/ eye protection/ face protection. **P271** Use only outdoors or in a well-ventilated area. **P260** Do not breathe dust/gas/mist/vapours. **P314** Get medical advice/attention if you feel unwell. **P284** In case of inadequate ventilation wear respiratory protection. **P272** Contaminated work clothing should not be allowed out of the workplace. **P264** Wash with plenty of water and soap thoroughly after handling. **P308 + P313** If exposed or concerned: Get medical advice/attention. **P312** Call a POISON CENTER/doctor if you feel unwell. **P301 + P310 IF SWALLOWED:** Immediately call a POISON CENTER/doctor. **P331** Do NOT induce vomiting. **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. **P304 + P340 IF INHALED:** Remove person to fresh air and keep comfortable for breathing. **P312** Call a POISON CENTER/doctor if you feel unwell. **P303 + P352 IF ON SKIN (or hair):** Wash with plenty of soap and water. **P333 + P311** If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician. **P332 + P313** If skin irritation occurs: Get medical advice/attention. **P362 + P364** Take off contaminated clothing and wash before reuse. **P337 + P311** If eye irritation occurs: Call a POISON CENTER or doctor/physician. **P403 + P233** Store in a well-ventilated place. Keep container tightly closed. **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: **EUH204** Contains isocyanates. May produce an allergic reaction.

Inhalation of isocyanate mists or vapors may cause respiratory irritation, breathlessness, chest discomfort and reduced pulmonary function. Overexposure well above the PEL may result in bronchitis, bronchial spasms and pulmonary edema. Long-term exposure to isocyanates has been reported to cause lung damage, including reduced lung function which may be permanent. Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting in allergic respiratory reactions including wheezing, shortness of breath and difficulty breathing. Animal tests indicate that skin contact may play a role in causing respiratory sensitization.

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SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Concentration (%)
diphenylmethane-4,4'-diisocyanate (MDI)	101-68-8	15 – 40 %
p-MDI	9016-87-9	35 – 60 %
Methylenediphenyl diisocyanate	26447-40-5	1 – 10 %
1,3-diazetidone-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]-	17589-24-1	0 – 5 %
Isocyanic acid, polymethylenepolyphenylene ester, polymer with alpha-hydro-omega-hydroxypoly(oxy-1,2-ethanediyl)	57636-09-6	0 – 5 %
Heavy aromatic solvent naphta	64742-94-5	20 – 30 %
Naphthalene	91-20-3	1 – 5 %

SECTION 4. FIRST AID MEASURES

Inhalation	IF INHALED: Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.
Ingestion	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
Skin Contact	IF ON SKIN: Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.
Eye Contact	IF IN EYES: In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

Most important symptoms and effects (acute and delayed)

The most important known symptoms and effects are described in the labelling (section 2) and/or in section 11, Ingestion, Eye irritation, skin irritation, allergic symptoms. Symptoms may be delayed. Ingestion can cause headaches, drowsiness, and dizziness. Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Hazards: Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed. Repeated inhalation of high concentrations may cause lung damage, including reduced lung function, which may be permanent. Substances eliciting lower respiratory tract irritation may worsen the asthma-like reactions that may be produced by product exposure.

Indication of any immediate medical attention and special treatment needed

Specific antidotes or neutralizers to isocyanates do not exist. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

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.

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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

- **Suitable extinguishing media:** In case of fire: water spray, carbon dioxide, foam
- **Unsuitable extinguishing media:** Do not use water jet as this may spread fire

Specific hazards arising from the hazardous product: During fire, carbon monoxide, nitrous gases, fumes/smoke, isocyanates, part oxidised hydrocarbon fragments and vapours may be formed.

Special protective equipment and precautions for fire-fighting: Self-contained breathing apparatus and turn-out gear must be worn in case of fire.

Further Information: Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment. Dyke to control spillage and prevent environmental contamination.

Methods and materials for containment and cleaning up

Ventilate contaminated area. Absorb spill with suitable absorbent material or recover free liquid with suitable pumps. Shovel material and store in closed containers for recycling or disposal.

Environmental Precautions

Do not discharge into drains/surface waters/groundwater.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Provide suitable exhaust ventilation at the processing machines. Avoid breathing product vapor. Take precautionary measures against static discharges. Wear respiratory protection when spraying. Danger of bursting when sealed gastight. Protect against moisture. If bulging of drum occurs, transfer to well-ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

Conditions for safe storage, including any incompatibilities

Store away from sources of ignition, heat oxidising agents. Keep away from water. Segregate from foods and animal feeds. Segregate from acids and bases. Formation of CO₂ and build-up of pressure possible. Keep container tightly closed and in a well-ventilated place. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

Storage stability: Storage temperature: 16-27°C.

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters (biological limit values or exposure limit values and source of those values)

Exposure limits:

CAS 101-68-8	OSHA PEL ACGIH TLV	CLV 0.02ppm 0.2 mg/m ³ TWA value 0.005ppm		
CAS 9016-87-9	OSHA PEL ACGIH TLV	CLV 0.02ppm 0.2 mg/m ³ TWA value 0.005ppm		
CAS 26447-40-5	No exposure limits noted for the ingredient(s)			
CAS 17589-24-1	No exposure limits noted for the ingredient(s)			
CAS 57636-09-6	OSHA PEL ACGIH TLV	CLV 0.02ppm 0.2 mg/m ³ TWA value 0.005ppm		
CAS 64742-94-5	OSHA PEL	400ppm (petroleum distillates, naphtha)		
CAS 91-20-3	Ontario TWAEV ACGIH TLV OSHA PEL	10ppm 52 mg/m ³ 10ppm 52 mg/m ³ 10ppm 52 mg/m ³	Ontario STEV ACGIH STEL OSHA STEL	15ppm 78 mg/m ³ 15ppm 78 mg/m ³ 15ppm 78 mg/m ³ (California)

Engineering Controls

Provide good local exhaust ventilation to control vapour/mist. Eye wash facilities and emergency showers must be available when handling this product. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

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:	Liquid, Dark brown	Vapour Pressure:	Not established
Odour:	Faintly aromatic	Vapour Density:	Not established
Odour threshold:	Not applicable	Relative Density:	1.12 (g/ml)
pH:	Not applicable	Solubility in water:	Reacts with water

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Melting/freezing point:	3°C (37.4°F)	Partition coefficient-n-octanol/water:	Not established
Initial boiling point/range:	179-203°C (354-397°F)	Auto-ignition temperature:	445°C (833°F)
Flash point(closed cup):	>66°C (151°F)	Thermal decomposition temperature:	Not established
Evaporation rate:	0.07 (butyl acetate =1)	Viscosity:	40.000 mPa.s
Flammability:	Combustible liquid	VOC:	279 g/L
Upper and lower flammability/explosive limits	Lower limit: 0.8% Upper limit: 5.9%	Other:	None known

SECTION 10. STABILITY AND REACTIVITY

Reactivity: This product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability: This product is stable under normal conditions.

Possibility of hazardous reactions: Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with strong oxidizing agents. Reacts with chlorine and fluorine. Reacts with alcohols. Reacts with acids. Reacts with alkalines. Reacts with amines. Risk of exothermic reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of substance/product with subsequent loss in strength.

Conditions to Avoid: Avoid moisture.

Incompatible materials: Acids, amines, alcohols, water, alkalines, strong bases, substances/products that react with isocyanates.

Hazardous decomposition products: carbon monoxide, carbon dioxide, nitrogen oxide, hydrogen cyanide, aromatic isocyanates, gases/vapours.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely routes of exposure (inhalation, ingestion, skin and eye contact):

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Symptoms related to the physical, chemical and toxicological characteristics:

- **Assessment of acute toxicity:** Inhalation of vapour may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation. Headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Irritating to eyes, respiratory system and skin. Skin contact may result in dermatitis, either irritative or allergic.
- **Assessment of chronic toxicity:** The substance may cause damage to the olfactory epithelium after repeated inhalation. The substance may cause damage to the lung after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.

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

- **Skin Sensitization** – Sensitization after skin contact possible;
- **Respiratory Sensitization** – The substance may cause sensitization of the respiratory tract;
- **Germ Cell Mutagenicity** – Results could not be confirmed in tests with mammals;
- **Carcinogenicity** – Napthalene is classified as a possible human carcinogen (IARC 2B);
- **Reproductive Toxicity** – Toxicity to development was observed at high doses that were toxic to the parental animals;
- **Specific Target Organ Toxicity – Single Exposure** – Causes temporary irritation of the respiratory tract;
- **Specific Target Organ Toxicity – Repeated Exposure** – The substance may cause damage to the olfactory epithelium after repeated inhalation; effect are not relevant to humans at occupational levels of exposure;
- **Aspiration Hazard** – No aspiration hazard expected;
- **Health Hazards Not Otherwise Classified** – No data available.

Numerical measures of toxicity (ATE; LD₅₀ & LC₅₀):

CAS 101-68-8	LD ₅₀ , Oral – Rat – >2000 mg/kg LC ₅₀ , Inhalation – Rat – 2.0 mg/l LD ₅₀ , Dermal – Rabbit – >9400 mg/kg
CAS 9016-87-9	No data available
CAS 26447-40-5	No data available
CAS 17589-24-1	No data available
CAS 57636-09-6	No data available
CAS 64742-94-5	LD ₅₀ , Oral – Rat – 7050 mg/kg LC ₅₀ , Inhalation – Rat – 5100 ppm LD ₅₀ , Dermal – Rabbit – >2000 mg/kg
CAS 101-68-8	LD ₅₀ , Oral- Rat – 1870 mg/kg LC ₅₀ , Inhalation – Rat – 106-142 ppm LD ₅₀ , Dermal – Rabbit – >2500 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial information):

Very toxic to aquatic life with long lasting effects.

Product	Species	Result
Isocyanate	LC ₅₀ Brachydanio rerio EC ₅₀ Daphnia magna EC ₅₀ Scenedesmus subspicatus	>1000 mg/l – 96 h >1000 mg/l – 24 h 1640 mg/l – 72 h
Naptha Solvent Mixture	LL ₅₀ Oncorhynchus mykiss EL ₅₀ Pseudokirchneriella subcapitata NOELR Pseudokirchneriella subcapitata EL ₅₀ Daphnia magna	>=2 – <=5 mg/l – 96 h 11 mg/l – 72 h 2.5 mg/l – 72 h >=3 – <=10 mg/l – 48 h

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Persistence and degradability: Partly biodegradable. The product is unstable in water.

Bioaccumulative potential: Significant accumulation in organisms is not to be expected.

Mobility in soil: The substance will not evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.

Other adverse effects: No data available.

SECTION 13. DISPOSAL CONSIDERATIONS

Information on safe handling for disposal/methods of disposal/contaminated packaging: Do not discharge substance/product into sewer system. Avoid release to the environment. 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:
Not classified as a dangerous good under transport regulations.

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IMDG (maritime):
Not classified as a dangerous good under transport regulations.

UN Number; Proper shipping name; Class(es); Packing group (PG) of the IATA (air):
Not classified as a dangerous good under transport regulations.

Special Precautions(transport/conveyance): None

Environmental hazards (IMDG or other): None

Bulk transport (usually more than 450L in capacity): Classified as combustible under US DOT regulations. Labeling required for single packages ≥ 119 US gal /450 to include Combustible symbol and Proper Shipping Name.

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

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SECTION 16. OTHER INFORMATION

Disclaimer: NOTICE TO READER:

Elite Coatings Canada Inc. expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose, with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages. All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Elite Coatings makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Elite Coatings' control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product, or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.

END OF S.D.S.

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