CONCRETE FUSION
1320 F AVE NE
CEDAR RAPIDS, IOWA, 52402
USA

# PRODUCT: 122856 CONCRETE FUSION PART B

## SECTION 01: IDENTIFICATION

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|---|---|
| Initial supplier identifier..... | CONCRETE FUSION<br>1320 F AVE NE<br>CEDAR RAPIDS<br>IOWA<br>U.S.A.<br>52402 |
| Product identifier..... | 122856 CONCRETE FUSION PART B |
| Recommended use and restrictions on use .. | Coatings. |
| Chemical family..... | Mixture. |
| NFPA rating..... | Health: 2 Fire: 4 Reactivity: 0. |
| HMIS..... | H: 2 F: 4 R: 0. |
| 24 hour emergency number:..... | For transportation emergencies (in Canada) call CANUTEC 1-888-226-8832 (CAN-UTEC); IN THE UNITED STATES CALL CHEMTREC 1-800-424-9300.<br>** For medical emergencies contact your local poison control centre **. |

## SECTION 02: HAZARD IDENTIFICATION

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| Signal Word..... | DANGER. |
| Hazard Classification..... | Flammable Liquid 2. Skin Sensitizer — Category 1. Eye Irritation — Category 2A. Acute Toxicity (Inhalation) — Category 4. Specific Target Organ Toxicity — Single Exposure — Category 3. (respiratory system). Carcinogenicity — Category 2. |
| Hazard Description..... | H225 Highly flammable liquid and vapour. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H351 This product contains ingredients that are suspected of causing cancer. |
| Prevention..... | P201 Obtain special instructions before use. P202 Do not handle this product until all safety instructions have been read and understood. P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion proof equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing mists, vapours and sprays. P264 Wash thoroughly after handling. P271 Use only outdoors or in a well ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves and eye protection. |
| Response ..... | P370 + P378 In case of fire - use dry chemical powder, CO2 or foam to extinguish. P303 + P361 + P353 If on skin or in hair: take off all contaminated clothing immediately. Rinse thoroughly with water and use safety shower . P304 + P340 - If inhaled remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/doctor if you feel unwell. P305 + P351 + P338 If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing until medical help arrives. P337 + P313 - If eye irritation persists get medical attention. P302 + P352 - If on skin: wash with plenty of water. P362 + P364 - Take off contaminated clothing and wash before reuse. P333 + P313 If skin irritation or rash occurs, get medical advice/attention. |
| Storage..... | P233 Keep container tightly closed. P403 + P235 Store in well ventilated area. Keep cool. P405 Store locked up. |
| Disposal..... | P501 Dispose all unused, waste or empty containers in accordance with local regulations. |
| Note ..... | This product mixture has been classified based on its ingredients. |

**PRODUCT: 122856 CONCRETE FUSION PART B**

## SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL NAME AND SYNONYMS | CAS # | WT. % |
|---|---|---|
| Hexane, 1,6-diisocyanato-, homopolymer | 28182-81-2 | 30-60 |
| Methyl Isobutyl Ketone | 108-10-1 | 15-40 |
| Butyl Acetate | 123-86-4 | 3-7 |
| 2-Propanol, 1-methoxy-, acetate | 108-65-6 | 1-5 |
| N-Butyl Propionate | 590-01-2 | 1-5 |

<<The actual concentration(s) withheld as a trade secret>> .

## SECTION 04: FIRST-AID MEASURES

Eye contact..... In case of contact, immediately flush eyes, keeping eyelids open, with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin contact..... Remove all contaminated clothing and immediately wash the exposed areas with copious amounts of water for a minimum of 30 minutes or up to 60 minutes for critical body areas. Wash clothing before reuse. If irritation persists, seek medical attention.

Inhalation..... If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen, obtain medical attention.

Ingestion..... If ingestion is suspected, contact physician or poison control center immediately. Do not induce vomiting. If spontaneous vomiting occurs have victim lean forward with head down to prevent aspiration of fluid into the lungs. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, ..... whether acute or delayed — Harmful if swallowed, in contact with skin or if inhaled. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Can cause skin sensitization. This product contains ingredients that may cause cancer.

Additional information..... Treat victims symptomatically. In the event of an incident involving this product ensure that medical authorities are provided a copy of this safety data sheet. Eye: stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapours have produced reversible corneal epithelial edema impairing vision.

## SECTION 05: FIRE-FIGHTING MEASURES

Suitable and unsuitable extinguishing ..... media — "Alcohol" foam, $CO_2$, dry chemical. Water spray. Do not use water in a jet.

Specific hazards arising from the ..... hazardous product, such as the nature of any hazardous combustion products — Extremely flammable. The vapour is heavier than air, spreads along the ground and distant ignition is possible. . Oxides of carbon (CO, $CO_2$). Hydrogen cyanide. Isocyanates. Isocyanic acid. Hydrocarbon fumes and smoke.

Special protective equipment and ..... precautions for fire-fighters — Firefighter should be equipped with self-contained breathing apparatus and full protective clothing to protect against potentially toxic and irritating fumes. Cool fire-exposed containers with cold water spray. Heat will cause pressure buildup and may cause explosive rupture. Solvent vapours may be heavier than air and may build up and travel along the ground to an ignition source, which may result in a flash back to the source of the vapours. Keep run-off water from entering sewers and other waterways. Dike for water control.

## SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Leak/spill..... Ventilate. Eliminate all sources of ignition. Evacuate all non-essential personnel. Contain the spill. Prevent runoff into drains, sewers, and other waterways. Avoid all personal contact. Absorb with earth, sand, or another dry inert material. Scrape or shovel into containers. Use an aqueous solution of ammonia or other suitable isocyanate neutralizing solution to clean up any unreacted prepolymer residue. Spilled material and water rinses are classified as chemical waste, and must be disposed of in accordance with current local, provincial, state, and federal regulations.

Methods and materials for containment . and cleaning up — Dike area to contain the spill, prevent runoff from going into drains, absorb residual material with an inert absorbent, shovel or pump to a properly labelled container and dispose of as a hazardous waste. Use an aqueous solution of ammonia or other suitable isocyante neutralizing solution to clean up any unreacted prepolymer residue. Do not use neutralizing solution on large spills as heat may be generated. Use a Swype test kit to test for residual isocyanates. .

**PRODUCT: 122856 CONCRETE FUSION PART B**

## SECTION 07: HANDLING AND STORAGE

Precautions for safe handling..... Keep away from heat, sparks, and open flame. Ensure that equipment is properly bonded and grounded during filling and transferring as product may become electrostatically charged. Avoid all skin contact. Handle with care. Avoid breathing vapours or mist. Ventilate adequately, otherwise wear an appropriate breathing apparatus. Employees should wash hands and face before eating or drinking.

Conditions for safe storage, including any incompatibilities: Keep away from heat, sparks, and open flames. Keep container closed when not in use. Peroxides can form if stored in contact with air. Store away from incompatible materials. Avoid: Water, Amines, Strong bases, Alcohols, Copper alloys.

## SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

| INGREDIENTS | ACGIH TLV TWA | ACGIH TLV STEL | OSHA PEL PEL | OSHA PEL STEL | NIOSH REL |
|---|---|---|---|---|---|
| Hexane, 1,6-diisocyanato-, homopolymer | Not Established | Not Established | Not Established | Not Established | Not Established |
| Methyl Isobutyl Ketone | 50 ppm | 75 ppm | 100 ppm | Not established | 50 ppm / STEL 75 ppm |
| Butyl Acetate | 150 ppm | 200 ppm | 150 ppm | 200 ppm vacated | 150 ppm - STEL 200 ppm |
| 2-Propanol, 1-methoxy-, acetate | 50 ppm | 75 ppm | Not established | Not established | Not established |
| N-Butyl Propionate | Not Established | Not Established | Not Established | Not Established | Not Established |

Appropriate engineering controls..... Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. Local mechanical exhaust ventilation should be used at sources of air contamination, such as open process equipment, or during purging operations, to capture gases and fumes that may be emitted. Standard reference sources regarding industrial ventilation (ie. ACGIH industrial ventilation) should be consulted for guidance about adequate ventilation. Explosion-proof exhaust ventilation.

Personal Protective Equipment

Eye/type..... Chemical safety goggles and full faceshield if a splash hazard exists.

Gloves/ type..... Wear skin protection equipment. The selection of skin protection equipment depends on the nature of the work to be performed. For protection from isocyanates: . Nitrile rubber. Butyl rubber. Neoprene.

Clothing/type..... Wear adequate protective clothes.

Footwear/type..... Safety boots per local regulations.

Respiratory/type..... Local exhaust ventilation is recommended. Whenever concentrations of isocyanates exceed the exposure limit or are not known, respiratory protection must be worn.

Other/type..... Emergency showers and eye wash stations should be available. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees on the safe use and handling of the product.

Medical surveillance..... Medical supervision of all employees who handle or come in contact with isocyanates is recommended. These should include preemployment and periodic medical examinations with pulmonary function test (FEC, FVC as a minimum). Persons with asthmatic-type conditions, chronic bronchitis, other chronic respiratory diseases or recurring skin eczema or sensitization should be excluded from working with isocyanates. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted.

Monitoring..... Exposure levels must be monitored by accepted monitoring techniques to ensure that the TLV is not exceeded.

## SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical state..... Liquid.
Colour..... Clear.
Odour..... Characteristic odour.
Odour threshold (ppm)..... Not available.
pH..... No data.
Melting / Freezing point (deg C)..... < 0 °C.
Initial boiling point / boiling range (deg C). >116 C.
Flash point (deg C), method..... 15. (estimate; lowest flash point ingredient).
Evaporation rate..... No data.
Flammability (solids and gases)..... Not applicable.
Upper flammable limit (% vol)..... 8.0.
Lower flammable limit (% vol)..... 1.2.
Vapour pressure (mm Hg)..... <14.8 mmHg.
Vapour density (air=1)..... >1.

**PRODUCT: 122856 CONCRETE FUSION PART B**

## SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

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| Relative Density (Specific Gravity)..... | 0.966. |
| Pounds / USG..... | 8.06. lbs/USG. |
| Solubility..... | No data. Reacts slowly with water to liberate CO2 gas. |
| Partition coefficient — n-octanol/water..... | Not available. |
| Auto ignition temperature (deg C)..... | No data. |
| Decomposition temperature..... | Not available. |
| Viscosity..... | No data. |
| % Volatile by volume..... | 58.04. |
| VOC..... | 3.99 lbs/USG. |

## SECTION 10: STABILITY AND REACTIVITY

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| Reactivity ..... | Contact with moisture, other materials that react with isocyanates, or temperatures above 177 C, may cause polymerization. |
| Chemical stability..... | Stable at normal temperatures and pressures. |
| Possibility of hazardous reactions..... | Contact with moisture, other materials that react with isocyanates, or temperatures above 177C, may cause polymerization. |
| Conditions to avoid, including static ..... discharge, shock or vibration | Avoid heat, spark, open flames. |
| Incompatible materails..... | Strong oxidizing agents. Water, Amines, Strong bases, Alcohols, Copper alloys. Acids. Aldehydes. Halogenated compounds. Reducing agents. |
| Hazardous decomposition products..... | Oxides of carbon (CO,CO2). Smoke. Hydrogen cyanide. Isocyanates. Isocyanic acid. |

## SECTION 11: TOXICOLOGICAL INFORMATION

| INGREDIENTS | LC50 | LD50 |
|---|---|---|
| Hexane, 1,6-diisocyanato-, homopolymer | 4.63 mg/L rat 4 hours | >5,000 mg/kg oral rat >5,000 mg/kg dermal rabbit |
| Methyl Isobutyl Ketone | 8.2 - 16.4 mg/L 4 hours rat | 2080 mg/kg rat oral >16,000 mg/kg rabbit dermal |
| Butyl Acetate | 390 ppm (4 hr) | 10768 mg/kg oral rat 17600 mg/kg dermal rabbit |
| 2-Propanol, 1-methoxy-, acetate | Not Available | 8,532 mg/kg rat oral 5,000 mg/kg dermal rabbit |
| N-Butyl Propionate | >23.7 mg/L 6hr. | >5000 mg/kg (oral, rat) |

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| Route of exposure..... | Eye contact. Skin contact. Inhalation. |
| Effects of acute exposure..... | Causes serious eye irritation. May cause sensitization by skin contact. Inhalation of vapours or mist may cause drowsiness or dizziness. Causes respiratory tract irritation. |
| Effects of chronic exposure..... | May aggravate pre-existing skin and eye disorders. Prolonged or repeated exposure may result in an allergic respiratory reaction in sensitive individuals. Breathing high concentrations of vapour may cause anesthetic effects and serious health effects. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal . Isocyanates are known to cause skin and respiratory sensitization in humans. Animal tests have indicated that respiratory sensitization can result from skin contact with diisocyanates. |
| Sensitizing capability of material..... | This product may cause skin sensitization. Isocyanates are known to cause skin and respiratory sensitization in humans. Animal tests have indicated that respiratory sensitization can result from skin contact with diisocyanates. |
| Carcinogenicity of material..... | Methyl Isobutyl Ketone is possibly carcinogenic to humans (IARC Group 2B). |
| Reproductive effects..... | No component of this product present at levels greater than or equal to 0.1% . |
| Mutagenicity..... | The data does not allow for an adequate assessment of the mutagenic effect. |
| Specific Target Organ Toxicity ..... | May cause respiratory irritation. |

## SECTION 12: ECOLOGICAL INFORMATION

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| Environmental..... | Do not allow to enter waters, waste water or soil. |
| Other adverse effects..... | Not available. |

## SECTION 13: DISPOSAL CONSIDERATIONS

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| Information on safe handling for disposal . and methods of disposal, including any contaminated packaging | Dispose of waste in accordance with all applicable Federal, Provincial/State and local regulations. Empty containers must be handled with care due to product residue. |

**PRODUCT: 122856 CONCRETE FUSION PART B**

## SECTION 14: TRANSPORT INFORMATION

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| TDG Classification..... | UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II - This product meets the Limited Quantity exemption when packaged in containers less than 5 liters. |
| DOT Classification (Road)..... | UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II - Ltd Qty (1 litre). Refer to 49CRF 172.101 for additional non-bulk packaging requirements. |
| IATA Classification (Air)..... | UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II. Limited Quantity. Do not ship by air without checking appropriate IATA regulations. |
| IMDG Classification (Marine)..... | UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II - EmS: F-E S-E. Limited Quantity. Check IMDG regulations for limited quantity exemptions. |
| Marine Pollutant..... | No. |
| Proof of Classification..... | In accordance with Part 2.2.1 of the Transportation of Dangerous Goods Regulations (July 2, 2014) - we certify that classification of this product is correct. . |

## SECTION 15: REGULATORY INFORMATION

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| CEPA status..... | On Domestic Substances List (DSL). |
| TSCA inventory status..... | All components are either listed or exempt from the TSCA. . |
| OSHA..... | This product is considered hazardous under the OSHA Hazard Communication Standard. |
| SARA Title III | |
| Section 302 - extremely hazardous ..... substances | None. |
| Section 311/312 - hazard categories..... | Immediate health, delayed health, fire hazard. |
| Section 313..... | Methyl Isobutyl Ketone. |
| EPA hazardous air pollutants (HAPS) ..... 40CFR63 | Hexamethylene diisocyanate. Methyl Isobutyl Ketone. |
| California Proposition 65..... | *** ! WARNING: This product can expose you to chemicals including [see below], which are known to the State of California to cause birth defects or other reproductive harm. (Methyl Isobutyl Ketone (D)). *** ! WARNING: This product can expose you to chemicals including [see below], which are known to the State of California to cause cancer . (Methyl Isobutyl Ketone (C)). For more information, go to www.P65Warnings.ca.gov. |

## SECTION 16: OTHER INFORMATION

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| Prepared by: ..... | REGULATORY AFFAIRS. Trivalent Data Systems Ltd. www.trivalent.com. |
| Telephone number:..... | (800) 387-7981. |
| Disclaimer:..... | DISCLAIMER: All information appearing herein is based upon data obtained from experience and recognized technical sources. To the best of our knowledge, it is believed to be correct as of the date of issue but we make no representations as to its accuracy or sufficiency and do not suggest or guarantee that any hazards listed herein are the only ones which exist. The hazard information contained herein is offered solely for the consideration of the user, subject to his own investigation and verification of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. The 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. |
| Date of the latest revision of the safety data sheet .. | 2019-02-27 |