

MATERIAL SAFETY DATA SHEET

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| <i>May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.</i> | PRODUCT NAME: | ECB™ ANTI-FRACTURE MEMBRANE | | | | |
| | DATE PREPARED: | OCTOBER 18, 2001 | | | | |
| | NAC REVISION DATE: | JULY 2011 | | | | |
| N/E | Not Established | N/R | Not Regulated | N/A | Not Available | |

SECTION 1 • Product and Company Identification

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| PRODUCT /CHEMICAL NAME: | ECB™ Anti-Fracture Membrane |
| PRODUCT CODE(S): | 010011200; 010012400; 010013600; 010010548; 010010550 |
| MANUFACTURER: | National Applied Construction Products, Inc. |
| ADDRESS: | 3200 S. Main Street Akron, OH 44319 |
| EMERGENCY PHONE: | 800-633-4622 (8:30 am to 5 pm, Eastern Standard Time) |
| TELEPHONE: | 330-644-3117 |
| FAX: | 330-644-3557 |
| CHEMICAL NAME: | Not Applicable |
| CHEMICAL FORMULA: | PROPRIETARY MIXTURE |
| GENERAL USE: | Anti-Fracture Membrane |

SECTION 2 • Composition / Information on Ingredients

| INGREDIENT: | CAS NO: | % WT: | % VOL: | SARA 313 REPORTABLE: | OSHA PPM: | ACGIH MG/M ³ : |
|-------------------------------|--|-------------------|---|----------------------|--------------------|---------------------------|
| 1) ASPHALT | 8052-42-4 | N/A | N/A | NONE | N/A | 0.5 As Fume |
| 2) MINERAL OIL | 64742-52-5 | N/A | N/A | NONE | N/A | 5 As Mist |
| 3) MINERAL FILLERS | MIXTURE | N/A | N/A | NONE | N/A | 5 mg/m ³ |
| OCCUPATIONAL EXPOSURE LIMITS: | | | | | | |
| INGREDIENT: | OSHA PEL TWA: | OSHA PEL CEILING: | ACGIH TLV-TWA: | ACGIH TLV STEL: | ACGIH TLV CEILING: | |
| 1) Asphalt | 1) 5 mg/m ³ | 1) N/A | 1) 0.5 mg/m ³ (Fume) | 1) N/A | 1) N/A | |
| 2) Mineral Oil | 2) 5 mg/m ³ | 2) N/A | 2) 5 mg/m ³ | 2) N/A | 2) N/A | |
| 3) Mineral Fillers | 3) 15 mg/m ³ (Total Dust) 5 mg/m ³ (Respirable Dust) | 3) N/A | 3) 10 mg/m ³ (Total Dust) 5 mg/m ³ (Respirable Dust) | 3) N/A | 3) N/A | |
| SECTION 2 NOTES: | Due to product being a solid sheet membrane, exposure to dusts, mists, fumes is not expected to occur. Limits for Asphalt refer to the fumes emitted by hot Asphalt. Limits for Mineral Oil and Mineral fillers refer to Airborne mists and dusts. | | | | | |

SECTION 3 • Hazards Identification

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| EMERGENCY OVERVIEW: | |
| ROUTES OF ENTRY: | Potential skin contact during normal use of product. |

SECTION 3 • Hazards Identification • Continued from Previous Page

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| POTENTIAL HEALTH EFFECTS: | EYES: | Under normal use eye exposure not expected to be a hazard. |
| | SKIN: | Contact may result in mild irritation or allergic reaction following multiple exposures. |
| | INHALATION: | Under normal use eye exposure not expected to be a hazard. |
| | INGESTION: | Under normal use eye exposure not expected to be a hazard. If ingested, may cause severe irritation to the gastrointestinal tract. |
| ACUTE HEALTH HAZARDS: | Skin contact may result in irritation. | |
| CHRONIC HEALTH HAZARDS: | Prolonged and repeated contact with skin may result in skin sensitization (allergy), with possible irritation, redness or rash. | |
| MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: | Persons with preexisting skin disorders. | |
| CARCINOGENICITY: | OSHA: | None |
| | ACGIH: | None |
| | NTP: | None |
| | IARC: | None |
| | OTHER: | |
| CAUTION: | N/A | |
| HAZARDOUS: | N/A | |

SECTION 4 • First Aid Measures

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| EYES: | N/A |
| SKIN: | Wash affected area with soap and warm water. Wash hands before eating, smoking or using the restroom. Do not eat or drink while working with this product. Avoid contact by wearing gloves. |
| INHALATION: | N/A |
| INGESTION: | This product is not intended to be eaten under normal conditions of use. Seek medical attention if ingested. |
| NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: | N/A |

SECTION 5 • Fire Fighting Measures

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| FLAMMABLE LIMITS IN AIR (% BY VOLUME): | UPPER: | Not Determined | LOWER: | Not Determined | | | | | |
| FLAMMABILITY CLASS: | Not Determined | | FIRE-FIGHTING MEASURES | | | | | | |
| FLASH POINT: @ F & C | > 450° F Cleveland Open Cup ASTM D-92 | | FLASH POINT: | Lowest temperature at which a flammable liquid gives off enough vapor to form an ignitable mixture with air. At a glance you can tell from a low flash point that a material represents a fire hazard: for example, the flash point of gasoline is -43 deg C (-45 deg F) | | | | | |
| AUTO-IGNITION TEMPERATURE: @ F & C | N/A | | AUTO-IGNITION TEMPERATURE: | Tells you how hot a material must be before it will set itself on fire without a flame or spark. | | | | | |
| NFPA HAZARD CLASSIFICATION: | | | | | | | | | |
| HEALTH: | 1 | FLAMMABILITY: | 0 | REACTIVITY: | 0 | PPI: | | OTHER: | |
| HMIS HAZARD CLASSIFICATION: | | | | | | | | | |
| HEALTH: | 1 | FLAMMABILITY: | 0 | REACTIVITY: | 0 | PPI: | B | OTHER: | |

SECTION 5 • Fire Fighting Measures • Continued from Previous Page

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| EXTINGUISHING MEDIA: | Dry Chemical Foam | LEL: | Lower Explosive Limit – the lowest concentration at which a chemical’s vapors will cause an explosion. Concentrations below the LEL are considered “too lean” |
| | | UEL: | Upper Explosive Limit – the maximum concentration at which a chemical’s vapor will cause an explosion. Concentrations greater than the UEL are considered “too rich” |
| | | FLAMMABLE LIMITS | Details about the minimum and maximum concentrations of vapors, so you can prevent fires. Generally concentrations that are greater than the LEL but less than the UEL |
| SPECIAL FIREFIGHTING PROCEDURES: | Treat as hydrocarbon fire | EXTINGUISHING MEDIA: | Which extinguishing material to use (water, foam, fog, carbon dioxide, dry chemical, etc.) |
| UNUSUAL FIRE AND EXPLOSION HAZARDS: | None know for product. | UNUSUAL FIRE OR EXPLOSION HAZARDS: | Any special conditions or precautions concerning fire and explosion that are unique to the chemical. |
| | | HAZARDOUS COMBUSTION PRODUCT: | |
| | | FIRE-FIGHTING INSTRUCTIONS: | Special procedures that are recommended during fire fighting. |
| | | FIRE-FIGHTING EQUIPMENT: | Special equipment or safeguards that are recommended during fire fighting. |
| HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of Carbon | | | |

SECTION 6 • Accidental Release Measures

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| SPILL / LEAK PROCEDURES: | This product as delivered is a solid membrane construction. Small pieces may be generated during use. Pick up any small pieces or residues and place in appropriate disposal containers. |
| WASTE DISPOSAL METHOD: | Waste of this product is not defined as hazardous according to USEPA 40 CFR Part 261.3. Comply with all local and state regulations when disposing of wastes from this product. |

SECTION 7 • Handling and Storage

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| STORAGE REQUIREMENTS: | Product should be kept dry and protected from the elements. |
| HANDLING PRECAUTIONS: | Use protective equipment as described in Section 8 of this MSDS when handling uncontained material. |
| OTHER PRECAUTIONS: | The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. |

SECTION 8 • Exposure Controls / Personal Protection

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| ENGINEERING CONROLS: Special controls not required when using this product. | |
| VENTILATION: | General ventilation |
| RESPIRATORY PROTECTION: | Not required |
| EYE PROTECTION: | Safety Glasses |
| SKIN PROTECTION: | Leather or Cotton Gloves |
| OTHER PROTECTIVE CLOTHING OR EQUIPMENT: | Normal protective clothing |
| WORK HYGIENIC PRACTICES: N/A | |
| EXPOSURE GUIDELINES: N/A | |

SECTION 9 • Physical and Chemical Properties

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| APPEARANCE FORM: | Pliable Solid Membrane |
| APPEARANCE/COLOR: | Black |
| ODOR: | Rubber and petroleum odor. |
| PHYSICAL STATE: | Pliable Solid |

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| PH VALUE: | N/A | | | |
| BOILING POINT: @ F & C | NOT DETERMINED | | | |
| MELTING POINT: @ F & C | NOT DETERMINED | | | |
| FREEZING POINT: @ F & C | N/A | | | |
| VAPOR PRESSURE (MMHG): @ F & C | N/A | | | |
| VAPOR DENSITY: (AIR=1) @ F & C | N/A | | | |
| SPECIFIC GRAVITY: (H2O=1) @ F & C | NOT DETERMINED | | | |
| EVAPORATION RATE: | N/A | | | |
| BASIS (=1): | | | | |
| SOLUBILITY IN WATER: | INSOLUBLE | | | |
| PERCENT SOLIDS BY WEIGHT: | N/A | | | |
| PERCENT VOLATILE: | By weight: | N/A | By volume @ F & C: | N/A |
| PARTITION COEFFICIENT: | N/A | | | |
| VOLATILE ORGANIC COMPOUNDS (VOC): | With Water: | 0 | Without Water: | 0 |
| MOLECULAR WEIGHT (VISCOSITY): @ F & C | N/A | | | |
| HEAVY ELEMENTS (PPM): | NONE | | | |

SECTION 10 • Stability and Reactivity

| CONDITIONS TO AVOID (STABILITY): | | EXPLANATION OF TERMS | |
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| STABILITY: | Stable | STABILITY: | How likely it is that a chemical will decompose, creating a dangerous situation. If the material is unstable, the MSDS lists the conditions that would create a hazardous product. |
| INCOMPATIBILITY (MATERIAL TO AVOID): | None reported for product | INCOMPATIBILITY: | Lists the materials to avoid with the chemical to prevent a hazardous reaction. (i.e. acid and bases) |
| HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: | Carbon monoxide, various hydrocarbons, sulfur oxides. | HAZARDOUS DECOMPOSITION OR BYPRODUCTS: | Conditions and materials that can cause a chemical to break down and become a hazard or what may be produced when the chemical reacts with other substances. These include temperature extremes, ignition sources, and other chemicals. Sometimes, the product of a reaction is far more hazardous than the chemical itself. |
| HAZARDOUS POLYMERIZATION: | Will Not Occur | HAZARDOUS POLYMERIZATION: | Large amounts of energy may be released when two or smaller molecules combine. If this is a danger, the MSDS lists the conditions that can lead to it. |
| CONDITIONS TO AVOID (POLYMERIZATION): | None | | |

SECTION 11 • Toxicological Information

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| <p>TOXICOLOGICAL INFORMATION: This product has not been tested as a separate entity. Therefore the hazards must be evaluated on the basis of individual ingredients. The hazards described in this document have been evaluated on a threshold of 1.0% for hazardous ingredients and 0.1% for all carcinogens.</p> <p>SECTION 11 NOTES: Acute Effects: Skin contact may result in irritation and possible allergic reactions. The LD₅₀ and LC₅₀ for this product have not been determined.</p> <p>Chronic Effects: Prolonged skin contact may result in skin sensitization with possible irritation, redness or allergic reaction. Due to product form, exposure to dusts, mists, or fumes is not expected to occur.</p> |
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SECTION 12 • Ecological Information

ECOLOGICAL INFORMATION: None available for product

SECTION 13 • Disposal Considerations

WASTE DISPOSAL METHOD: Transfer any solids and/or residues to landfill pending regulations and/or permits.

RCRA HAZARD CLASS: This product is not regulated under US EPA 40 CFR Part 261.3 of RCRA

SECTION 14 • Transport Information

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| U.S. DEPARTMENT OF TRANSPORTATION | Proper Shipping Name: ECB ANTI-FRACTURE MEMBRANE Hazard Class: N/A ID Number: N/A Packing Group: N/A Label Statement: N/A |
| WATER TRANSPORTATION: | Proper Shipping Name: ECB ANTI-FRACTURE MEMBRANE Hazard Class: ID Number: Packing Group: Label Statement: |
| AIR TRANSPORTATION: | Proper Shipping Name: ECB ANTI-FRACTURE MEMBRANE Hazard Class: ID Number: Packing Group: Label Statement: |
| OTHER AGENCIES: | Canadian TDG: ECB ANTI-FRACTURE MEMBRANE |

SECTION 15 • Regulatory Information

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| U.S. FEDERAL REGULATIONS: | TSCA (Toxic Substance Control Act): N/A CERCLA HAZARDOUS SUBSTANCE (40 CFR 302.4): N/A SARA Title III SECTION 313: N/A SARA 311/312 HAZARD CATEGORIES: N/A 313 REPORTABLE INGREDIENTS: N/A <hr/> Toxic/Flammable Substance Subject to Accidental Release Prevention (40 CFR 68.130): N/A RCRA Hazardous Waste Number (40 CFR 261.33): N/A Classified as a RCRA Hazardous Waste (40 CFR 261.21): N/A CERCLA Reportable Quantity (RQ): N/A SARA Toxic Chemical (40 CFR 372.65): N/A SARA EHS (Extremely Hazardous Substance) (40 CFR 355): N/A |
| STATE REGULATIONS: | NONE |
| INTERNATIONAL REGULATIONS: | WHMIS: D 2 B |

SECTION 16 • Other Information

OTHER INFORMATION:

PREPARATION INFORMATION:

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