

## Section 1 – Identification

PRODUCT: CMS-2

SYNONYMS: Cationic Medium Setting Asphalt Emulsion EMULVIA® CR2

RECOMMENDED USE(S): Tack coat for HMA paving, mixing with graded aggregates, cold recycling applications, seals

MANUFACTURER: BCI Materials, 1131 Atando Avenue Charlotte, NC 28206- Telephone: 704334-5014 - www.bcimaterials.com

EMERGENCY CONTACT: Spills or leaks, contact- C.E.R.T. at 1-877-505-6799

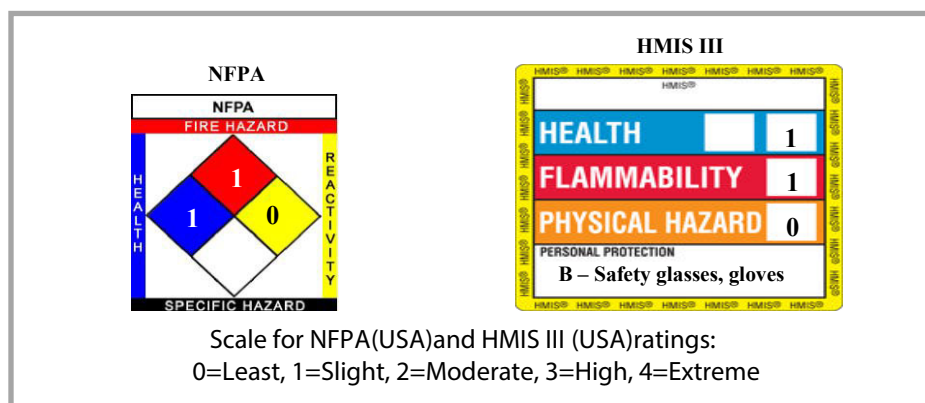
## Section 2 – Hazards Identification

Globally Harmonized System (GHS) Classification(s):

- Carcinogenicity: Category 2
- Serious Eye Damage/Eye Irritation: Category 2b
- Aquatic Toxicity (chronic): Category 3
- Skin Corrosion/Skin Irritation: Category 3



WARNING



Hazard statement(s):

- Causes mild skin irritation
- Causes eye irritation if splashed in eyes.
- Possibly carcinogenic to humans (see Section 11– Toxicological Information for more information)
- Can be harmful to aquatic life with long lasting effects (see Section 12– Ecological Information for more information).

Precautionary statement(s):

- Do not handle until all safety precautions have been read and understood.
- Eye Contact: Hot material can cause burns to the eye.
- Skin Contact: Hot material can cause burns to the skin. Avoid direct contact with hot material.
- Inhalation: No significant adverse health effects are expected to occur upon short term exposure to this product at ambient temperatures.
- Ingestion: Contact with hot material may cause thermal burn
- Wear appropriate personal protective equipment (PPE) when handling (see Section 8– Exposure Controls/Personal Protection for more information).
- Other Health Warnings: Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

### Section 3 – Composition/information on ingredients:

#### Mixture Components:

<u>Common Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Asphalt (bitumen)	8052-42-4	55-75%
Emulsifier	Components listed in TSCA inventory	0-3%
Water	7732-18-5	Balance

The exact formulation of this mixture is proprietary and considered a trade secret. Additives are not considered hazardous as contained in this product.

### Section 4 – First Aid Measures

#### Emergency and First Aid Procedures:

- Eyes: Gently flush with large amounts of water. Obtain medical treatment immediately.
- Skin: Remove asphalt product with waterless hand cleaner and wash with soap and water. If burns are present, seek medical treatment immediately.
- Inhalation: Remove victim from exposure. Obtain medical treatment immediately.
- Ingestion: If large amounts are swallowed, DO NOT induce vomiting; Obtain medical treatment immediately.

### Section 5 – Firefighting Measures

- Extinguishing Media: Foam, carbon dioxide, dry chemical, water sponge.
- NFPA Class IIIB combustible material.
- Hazardous chemical code: none allocated.
- Special Firefighting Procedures : Foam and water extinguishing methods may cause frothing of product
- Unusual Fire and Explosion Hazards: See Section 10 – Stability and Reactivity for additional information.

### Section 6 – Accidental Release Measures

#### Clean up Procedures

- Wear appropriate PPE (safety glasses, gloves, and rubber boots). Use any additional PPE as your existing conditions dictate.
- Recover free product.
- Add absorbent (sand, earth, sawdust, etc.) to remaining spill; hot product will solidify upon cooling. Collect and seal in properly labeled containers for disposal.
- Contain run off product from entering sewers and waterways via diking or containment barriers/channels.
- Advise applicable authorities (EPA/DNR/etc.) if product enters sewers or waterways.
- Notify applicable emergency personnel as directed.
- Contact local authorities for regulations regarding disposal requirements.

### Section 7 – Handling and Storage

- Recommended storage temperature is 50°F to 140°F (10°C to 60°C). Protect from freezing.
- Wear appropriate PPE when handling (safety glasses, gloves). Avoid contact with skin, eyes or clothing.
- Store only in secure closed containers or vessels designed for asphalt emulsion storage.
- It is recommended that this product be stored within an appropriately sized containment area capable of preventing accidental release or spillage from migrating into the environment.
- Store in well ventilated area removed from ignition sources, oxidizing agents and foodstuffs.
- Observe good personal hygiene, including washing hands before eating, drinking or smoking. Prohibit eating, drinking or smoking in handling and storage areas.
- Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty storage containers and/or waste residues of this product.

## Section 8 – Exposure Controls/Personal Protection

- Asphalt: ACGIH TLV (United States): TWA 0.5mg/ /m<sup>3</sup> for 8 hours.
- Asphalt (fumes): NIOSH - 5 mg/m<sup>3</sup> (15 minutes), OSHA PEL – none
- Utilize exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits. An eye wash station and safety shower should be located near the work station.
- Respiratory Protection: Not required under normal conditions and adequate ventilation. If working conditions dictate, use NIOSH-approved, air-purifying, particulate filter respirator suitable for dusts, fumes, and mists.
- Eye protection: Safety glasses. When handling hot material, a full face shield is recommended.
- Protective Gloves: Insulated gloves for handling of hot material; Cloth, nitrile, latex or similar gloves for cooler material.
- Other Protective Clothing: Standard work clothing; shirts with long sleeves (hot asphalt), pants. Use any other necessary PPE when work conditions dictate.
- General Hygiene Practices: Wash hands and other exposed areas of skin with mild soap and water before eating, drinking, smoking, use of restroom facilities, or leaving work. Do not use gasoline, kerosene, solvents, or other harsh abrasive skin cleaners.

## Section 9 – Physical and Chemical Properties

- Appearance: Brown, viscous liquid (in use). Black semi-solid thermoplastic (when cured).
- Odor: Characteristic asphalt odor
- Odor Threshold: Not established
- pH: 2.30 to 4.0 (typical)
- Melting point/freezing point: Not applicable
- Initial boiling point / boiling range: 212°F (100°C) and above
- Flash point: Greater than 400°F (200°C)
- Evaporation rate: Not established
- Flammability: Class C2 combustible
- Upper Explosion Limit: Not applicable
- Lower Explosion Limit: Not applicable
- Vapor pressure: (mm Hg): 60 at 100°F (37.8°C)
- Vapor density: Not applicable
- Relative density: Specific Gravity range at 60°F (15.6°C ) where water = 1: 1.0 to 1.1 (approximately 8.5 lbs/gal)
- Solubility: Insoluble
- Partition coefficient (n-octanol/water): Not applicable
- Auto-ignition temperature: Not applicable
- Decomposition temperature: Not applicable
- Viscosity: 20 – 100 sfs
- Other information: No additional relevant information

## Section 10 – Stability and Reactivity

### Reactivity:

- Avoid extreme heating (above 200°F, or 93°C) of this product.
- Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite, or calcium hypochlorite.
- Hot product (above 230°F, or 110°C) in contact with water can cause foaming or sudden evolution of steam, which could cause pressure buildup and possibly rupture a tank or vessel.
- Keep this product away from strong acids and strong oxidizing conditions.

### Stability:

- This product is stable in normal usage and storage conditions at recommended or environmental temperatures. Do not heat this material above 200°F (93°C).
- Avoid contact of hot asphalt with water or light hydrocarbons which may create a violent eruption.

### Other information:

- Thermal decomposition or burning may release oxides of carbon, oxides of sulfur, and other toxic gases or vapors.

## Section 11 – Toxicological Information

- Major Route(s) of Entry: Skin, Eyes, Ingestion
- May cause skin irritation with redness, an itching or burning feeling, and swelling of the skin. Effects may become more serious with repeated or prolonged contact. Skin contact may cause harmful effects in other parts of the body.
- Asphalt: Oral (LD50): Acute >5000mg/kg [Rat], Dermal (LD50): Acute >2000mg/kg [Rabbit]
- Water: Oral LDL: Acute: 42,900 m/kg [Human]
- This mixture can cause eye irritation with tearing, redness, stinging or a burning feeling. Effects may become more serious with repeated or prolonged contact.
- Swallowing large amounts of this mixture may cause stomach or intestinal upset with pain, nausea, vomiting, and/or diarrhea.
- Once cured, the inert semi-solid material is considered non-hazardous. However, breathing fumes caused by heating of the cured product can irritate the mucous membranes of the nose, throat, bronchi, and lungs.
- Medical Conditions Aggravated By Exposure: Disorders of the following organs or organ systems that may be aggravated by significant exposure to this material or its components include: Skin, Eyes
- Other Health Warnings: Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists, or fumes should be minimized.

### Carcinogenic Categories:

- NTP (National Toxicology Program): This mixture is not listed.
- OSHA: 29 CFR 1910, Subpart Z – Toxic and Hazardous Substances: This mixture is not listed.
- IARC (International Agency for Research on Cancer): IARC Group 2B. See IARC Monographs Volume 103, Bitumens and Bitumen Emulsions, and Some N- and S- Heterocyclic Polycyclic Aromatic Hydrocarbons.
- California Office of Environmental Health Hazard Assessment (OEHHA), Proposition 65: asphalt (bitumen) ingredient(s) listed.

## Section 12– Ecological Information

- Aquatic toxicity: If spilled, this product and any contaminated water may be harmful to aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.
- Persistence and degradability: This product is estimated to have a slow rate of biodegradation.
- Bioaccumulation potential: This product is not expected to bioaccumulate through food chains in the environment.
- Mobility in soil: Spillages are unlikely to penetrate soil. Once cured, no leaching from soil to groundwater should occur.
- Do not directly introduce this product into ground water, water course, storm drains and sewage systems.

## Section 13 – Disposal Considerations

- The bituminous component of this product can be reclaimed through evaporation and then be recycled.
- Where available, bulk product can be recycled through remanufacture [e.g., re-milling].
- Maintain all product and components within specified containment areas until disposal.
- Keep any run off product from entering sewers and waterways via diking or containment barriers/channels.
- Add absorbent (sand, earth, sawdust, etc.) to any spill; hot product will solidify upon cooling.
- To minimize exposure, refer to Section 8 of this document (Exposure Controls/Personal Protection) for more information.
- Dispose of this product in accordance with all of your local regulations and guidelines. Contact your local authorities for information on the requirements and regulations in your area.

## Section 14 – Transportation Information

THIS PRODUCT IS NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	Land Transport (ADG)	Sea Transport (IMDG / IMO)	Air Transport (IATA / ICAO)
UN Number	None Allocated	None Allocated	None Allocated
Proper Shipping Name	None Allocated	None Allocated	None Allocated
Transport Hazard Class	None Allocated	None Allocated	None Allocated
Packing Group	None Allocated	None Allocated	None Allocated

- Environmental hazard(s) – marine pollutant: Refer to Section 12 – Ecological Information (aquatic toxicity).
- United States Department of Transportation (US DOT): Non-regulated material
- Bulk transportation guidance: No further relevant information available.
- Special precautions: No further relevant information is available.

## Section 15 – Regulatory Information

### United States Environmental Protection Agency (EPA), Toxics Release Inventory (TRI) Chemicals, RY 2013:

- Ingredient components in this product are on the Toxic Substances Control Act (TSCA) TRI Chemicals list.

### Superfund Amendments and Reauthorization Act of 1986 (SARA):

- SARA 302/304: SARA Title III requires facilities subject to subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQ's) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. This mixture is not listed in 40 CFR 355.
- SARA 311/312: SARA Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: ACUTE (Immediate) health hazard, Chronic (Delayed) health hazard.

### Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

- CERCLA requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substances" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. This product or refinery stream is known to contain chemical substances subject to this statute. However, it is recommended that you contact state and local authorities to determine if there are any other reporting requirements in the event of a spill.

## Section 16 – Other Information

- Date of Preparation/last revision: March 6, 2020.
- The recommendations for personal protective equipment (PPE) contained within this safety data sheet (SDS) are provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.
- It should be noted that health effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a safety data sheet (SDS) which would encompass all possible scenarios, it is anticipated that users will assess their risk and apply control measures where appropriate.
- Some abbreviations not previously noted that were used in this document:
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - PEL: Permissible Exposure Limit
  - CAS: Chemical Abstracts Services (division of the American Chemical Society)
  - TLV: Threshold Limit Value
  - HMIS: Hazardous Materials Identification System (USA)
  - N/A: Not applicable
  - LD50: Lethal Dose, 50% / Medial Lethal Dose
  - Mg/m<sup>3</sup>: Milligrams per cubic meter
  - pH: relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline)

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