

**MATERIAL SAFETY DATA SHEET
EMULSION BITUMEN - ANIONIC**

1. Identification of Substance and Supplier Substance/Preparation:

Bitumen supplier: www.bituphalt.com

E-mail: info@bituphalt.com

Date of revision: SEP 2024

HAZARD INFORMATION

2. Composition/Information on Ingredients

This petroleum-based asphalt product contains a small amount of Polyaromatic hydrocarbons which have been shown to cause cancer and respiratory damage in laboratory animals.

3. Hazardous Identification

This product is not classified as hazardous. Prolonged or repeated contact with cold material may cause dermatitis. Contact with hot material will cause thermal burns. Exposure to asphalt fumes increases sensitivity to sunburn. Mouse skin painting studies give evidence of skin cancer. Fumes from heated material will cause eye irritation. Upper respiratory tract (nose and throat) irritation. May cause nausea or dizziness.

EMERGENCY ACTION

4. First Aid Measures

Eye Contact: Immediately flush eyes with large amounts of water and seek medical attention. If material is hot, treat for thermal burns and seek medical attention immediately.

Skin Contact: If material is hot, submerge injured area in cold water. If victim is severely burned, remove to a hospital immediately. If cool asphalt contacts skin, wash the area with hot soapy water. Use of a waterless hand cleaner will help to remove the asphalt.

Inhalation: Remove individual to fresh air. If irritation persists, administer oxygen and seek medical attention.

Ingestion: Do not induce vomiting. Seek medical attention.

5. Firefighting Measures

a. Extinguishing Media: Use dry chemical, foam or carbon dioxide.

b. Special Firefighting Procedures: Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.

c. Unusual Fire and Explosive Conditions: Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide and other oxides may be generated as products of combustion.

PRECAUTIONS

6. Accidental Release Measures

Avoid skin contact, wear suitable protective equipment (see 8).

Cleaning up: Extinguish sources of heat and fire. Cover leaks with absorbent material such as sand. Disperse left-over material with water or foam spray, do not use vacuum.

7. Storage & Handling

Do not transfer to unmarked containers. Store in closed containers away from heat, sparks, open flame, or oxidizing materials. Fire extinguishers should be kept readily available.

8. Exposure Controls & Personal Protection

Personal protective equipment:

- a. Respiratory Protection: Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handled or fumes exceed 5 mg3/m use an organic vapor respirator with a dust and mist filter. Do not use compressed oxygen in hydrocarbon atmospheres.
- b. Skin Protection: Long sleeved shirt and long pants (boots, gloves, aprons, etc.) over parts of the body subject to exposure. If handling hot material, use insulated protective clothing (boots, gloves, aprons, etc.).
- c. Eye Protection: Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety goggles.
- d. Ventilation: If vapor or mist is generated when the material is heated or handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified exposure or flammable limits.
- e. Other: Consumption of food and beverages should be avoided in work areas where hydrocarbons are present. Always wash hands.

PRODUCT INFORMATION

9. Physical & Chemical Properties

Form: Solid

Colour: Black

Odour: Characteristic

Specific Gravity: N/A

Solubility in Water: Non-dilutable

Alkalinity – PH: N/A

Boiling Point/Boiling Range: N/A

Melting Point/Melting Range: N/A

Flash Point: N/A

Flammability & Auto Flammability: N/A

Oxidising Properties: N/A

Vapour Pressure: N/A

10. Stability & Reactivity

Do not allow hot molten product to contact water or liquids as this can cause violent eruptions. This product may react with strong oxidizing agents. CO, CO₂, oxides of sulphur and various hydrocarbons are the hazardous decomposition products.

11. Toxicological Information

See 10.

12. Ecological Information

There are no known eco-toxic effects in the existing patterns of productions, handling, storage, and use.

13. Disposal Considerations

All disposals must comply with federal, state, and local regulations.

ADDITIONAL INFORMATION

14. Transport Information

- Not hazardous,
- Classification for conveyance – not required,
- Good are None DG as per IATA regulations.

BITUPHALT BITUMEN

MEDIUM SETTING MS-4 EMULSION BITUMEN SPECIFICATIONS

| Property | Min | Max |
|---|------|-----|
| <i>Tests on Emulsion</i> | | |
| Viscosity, SF, 25°C, SFs | 50 | 500 |
| Viscosity, SF, 50°C, SFs | | |
| Sieve Test, #20, % | - | 0.1 |
| Settlement, 5 days, % | | |
| Storage Stability, 24h, % | - | 1 |
| Demulsibility, 35 ml CaCl ₂ 0.02N, % | | |
| Cement Mixing Test, % | | |
| Coating Test, % | 75 | - |
| Residue by Distillation, 260°C, % | 65 | - |
| Oil Portion of Distillate (V/M), % | 2 | 7 |
| Particle Charge | (-) | |
| <i>Tests on Residue</i> | | |
| Penetration, 25°C, dmm | 200 | - |
| Solubility in TCE, % | 97.5 | - |
| Ash Content, % mass of res | | |
| Ductility, 25°C, cm | | |
| Float Test, 60°C, sec | 50 | - |