

MATERIAL SAFETY DATA SHEET CUTBACK BITUMEN

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

%90 of this product mixture consists of ingredient(s) of unknown acute toxicity.

3. Hazardous Identification

The product is classified as flammable liquid and vapor. Prolonged or repeated skin contact can cause skin irritation. It is suspected of causing cancer. Hot product may cause thermal burns.

EMERGENCY ACTION

4. First Aid Measures

Eye Contact: If the substance has entered the eyes, then irrigate with emergency eye wash solution (if available) or clean water for up to 15 minutes. Seek medical attention.

Skin Contact: Remove non-adhering contaminated clothing. Cool adherent materials and burned areas with ice and/or cold water. Do not remove adherent material or clothing. Do not use solvents to remove asphalt from the skin. Seek medical attention immediately.

Ingestion: If swallowed seek medical advice immediately. Do not induce vomiting.

Inhalation: Inhalation may cause respiratory irritation, headache, dizziness, confusion, loss of appetite and/or loss of consciousness. Seek medical attention.

5. Firefighting Measures

Flammable liquid and vapor. Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Substance is transported hot. When heated, this material may evolve toxic and flammable Hydrogen sulphide. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

a. *FIRE INVOLVING TANKS OR CAR/TRAILER LOADS*: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

b. *SENSITIVITY TO MECHANICAL IMPACT*: This material is not sensitive to mechanical impact.
c. *SENSITIVITY TO STATIC DISCHARGE*: Take precautionary measures against static discharge. This material is sensitive to static discharge.

MEANS OF EXTINCTION:

a. *SUITABLE EXTINGUISHING MEDIA*:

- Small Fire: Dry chemical, CO₂, or regular foam.

- Large Fire: Fog or regular foam. Move containers from fire area if you can do it without risk.

b. *UNSUITABLE EXTINGUISHING MEDIA*: Do not spray water onto burning product as this may cause spattering and spreading of the flame.

c. *PRODUCTS OF COMBUSTION*: Oxides of carbon. Oxides of Sulphur. Oxides of Nitrogen. Hydrogen Sulphide.

d. *PROTECTION OF FIREFIGHTERS*: Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

6. Accidental Release Measures

As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Use personal protection.

Cleaning Up: Break up and recover. Scoop up into drums.

PRECAUTIONS

7. Storage & Handling

Storage: Store in a well-ventilated place. Store locked up. Store away from incompatible materials. See 10 for information on Incompatible Materials. Keep out of the reach of children. Asphalt contains trace amounts of Hydrogen sulfide which can accumulate in vapour space of tanks and containers.

Handling: Do not swallow. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Grounding of containers/pouring equipment is necessary when transferring hot liquid product. See 8 for information on Personal Protective Equipment.

8. Exposure Controls & Personal Protection

Personal protective equipment:

- a. Respiratory Protection: If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate air-purifying respirator with organic vapor cartridge, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.
- b. Hand Protection: Wear protective gloves. Nitrile or Viton gloves are recommended. DO NOT USE NATURAL RUBBER or PVC (polyvinyl chloride). If product is hot, thermally protective gloves are recommended.
- c. Skin Protection: Wear protective clothing. Flame resistant clothing is recommended in areas where material is stored or handled. Clothing with full length sleeves and pants should be worn.
- d. Eye Protection: Wear chemical safety goggles. If product is hot, wear full face-shield.

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

This product is stable under normal storage conditions. Contact with incompatible materials such as strong acids, oxidizers and alkali metals can cause ignition. Contact between heated asphalt and water can cause a violent eruption. Oxides of carbon, oxides of sulphur, oxides of nitrogen and hydrogen sulphide are the hazardous decomposition products.

11. Toxicological Information

Effects of Acute Exposure:

Inhalation: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Excessive inhalation may cause headache, dizziness, confusion, loss of appetite and/or loss of consciousness.

Eye: May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Hot liquid product may cause serious thermal burns on direct contact.

Skin: Causes skin irritation. Signs/symptoms may include localized redness and swelling. Hot liquid product may cause serious thermal burns on direct contact. Asphalt fumes can increase susceptibility to sunburn.

Ingestion: Hot product may cause thermal burns. Causes burns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, vomiting, and diarrhea, blood in the feces and/or vomitus may also be seen. If swallowed in large quantities, asphalt can obstruct the intestine.

Effects of Chronic Exposure:

Target Organs: Skin, eyes, gastrointestinal tract, respiratory system, liver, kidneys, nervous system.

Carcinogenicity: May cause cancer. Long-term or repeated exposures to asphalt fumes are possibly carcinogenic to humans.

Chronic Effects: Prolonged or repeated contact may dry skin and cause irritation.

12. Ecological Information

Prevent entry into waterways, sewers, basements or confined areas.

13. Disposal Considerations

Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

BITUPHALT BITUMEN

RAPID CURING RC-70 CUTBACK BITUMEN SPECIFICATIONS

| Property | Min | Max | Test Method |
|--|-----|-----|---------------------------|
| Kinematic 1 Viscosity at 60°C, eSt | 70 | 140 | ASTM D2170 |
| Flash Point (Tag Open-Cup), °C | - | - | ASTM D1310 |
| Distillate Test 2 | | | |
| <i>Distillate, Percent by Volume of Total 360 °C</i> | | | |
| To: 190°C | 10 | - | ASTM D402 |
| To: 225°C | 50 | - | ASTM D402 |
| To: 260°C | - | - | ASTM D402 |
| To: 316°C | 85 | - | ASTM D402 |
| <i>Residue from Distillation to 360 °C</i> | | | |
| Penetration at 25°C, 100 g, 5 sec. | 55 | - | |
| Ductility 3 at 25°C, cm | 80 | 120 | ASTM D402 / ASTM D113 |
| Solubility in Trichloroethylene, % | 100 | - | ASTM D402 / ASTM D2024 |
| Water, % | - | 0.2 | ASTM D95 |