

# MSDS

## Material Safety Data Sheets

### *Material Safety Data Sheet*

#### *Cutback Bitumen*

#### **1. Chemical Product Identification**

**Product Name:** Cutback Bitumen

**Supplier:** Zista Group

**Product Identifier:** Cutback Bitumen

**Product Description:** A blend of components derived from bitumen and solvents

**Intended use:** Used for priming of base courses.

#### **2. Composition/Information on Ingredients**

- **Preparation description:** A blend of components derived from crude petroleum oil, solvents and additives.
- **Additional information:** Crude petroleum oil may contain trace levels of hydrogen sulphide (H<sup>2</sup>S). Refer to chapter 16 for full text of EC R-phrases

#### **3. Hazards Identification**

- **Health Hazards:**
  - Vapors may be explosive if exposed to a source of ignition.
  - Fumes may be irritating to the eyes and respiratory tract.
  - Overexposure to fumes may cause loss of consciousness.
  - May cause allergic skin reaction in susceptible individuals.
- **Potential health effect:**
  - Prolonged exposure to fumes generated by heating this product may cause respiratory irritation with throat discomfort, coughing, or breathing difficulty and loss of consciousness in extreme cases
  - Repeated exposure may lead to respiratory sensitization (asthma) in susceptible individuals.

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### **4. First Aid Measures**

- **Skin Contact (burns)**

- Hot product- The product is normally applied at a ambient temperature not exceeding 60°C. Any contact of hot product with the skin should therefore not result in serious damage to the skin. If contact with hot product, cool down the affected are by flushing with large amount of water.
- Do not attempt to remove anything from burned area or apply burn creams or ointments. Cover burned area loosely with sterile dressing. If available.
- Transport to the nearest health facility for additional treatment, if required. All burns should receive medical attention.
- Cold product-Remove contaminated clothing. Flush exposed area with water and followed by washing with soap if available. If persistent irritation occurs, seek medical attention.

- **Eye Contact**

- Hot Product – If contact with hot product, cool down the burned area by flushing with large amount water.
- Do not attempt to remove anything from the affected area or apply creams or ointments.
- Cover the burned area loosely with a sterile dressing, if available. If persistent irritation occurs, obtain medical attention.

- **Inhalation**

- If inhalation of mists, fumes or vapour causes irritation to the nose or throat, remove to fresh air. If rapid recovery does not occur, obtain medical assistance.
- Casualties suffering from ill effects as a result of exposure to hydrogen sulphide should be removed to fresh air. Do not attempt to rescue victim unless proper respiratory protection is worn.

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- If victim unresponsive, give 100% oxygen with rescue breathing or cardiopulmonary Resuscitation (CPR) as required and transport to the nearest medical facility.

- **Ingestion**

- Do not induce vomiting. Protect the airways if vomiting occurs. Seek medical assistance if rapid recovery does not occur.

### **5. Fire-fighting Measures**

- **Clear the area of all non-emergency personnel**

#### **Extinguishing Media**

- Dry chemical powder.
- Carbon Dioxide.
- Sand or earth.
- Do not use water.

- **Protective Equipment**

Proper protective equipment including self-contained breathing apparatus and eye protection must be worn when dealing with fires, especially fires in confined spaces.

- **SPECIFIC HAZARDS**

Flammable vapors may be present even at temperatures below the flash point. The vapor is heavier than air, spreads along the ground and distant ignition is possible. Will float and can be reignited on surface? Hazardous combustion products may include:

- A complex mixture of airborne solid and liquid particulates and gases(smoke)
- Carbon monoxide
- Unidentified organic and inorganic compounds
- Boil over of a tank and violent eruptions may occur in the presence of water.

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### **6. Accidental Release Measures**

Avoid contact with spilled or releases material

- **Protective Measures:**

- Avoid contact with skin, eyes and clothing.
- Do not breathe fumes or vapors from this product.
- Remove all possible sources of ignition in the surrounding areas. Ventilate contaminated area thoroughly.
- Hot product should be handled with extra care to avoid burns.
- Use compressed air or fresh air respiratory equipment in confined areas.
- Prevent the product from entering into drains, dam's ditches and river by using sand, earth or other appropriate barriers.

- **Clean-up methods:**

- Use sand and spill control material to contain/or absorb spills.
- Allow product to cool down and solidify.
- Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

### **7. Handling and Storage**

- **General precautions**

- Avoid contact with hot liquid to prevent burns.

- **Handling**

- Do not exceed the recommended handling temperatures.

- **Storage and Storage conditions**

- Tanks should be provided with a heating facility. Precautions must be taken to ensure that heating coils are always well covered with product (minimum 15 cm)
- Tanks should be lagged to prevent heat loss.
- Precautions must be taken to prevent ingress of water.
- The lowest practicable storage temperatures should be used and through-draughts of air avoided minimizing risk of generating flammable conditions in the tank space.

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- The bulk storage tanks should be surrounded by bound walls.
- The product should be stored in well ventilated areas.
- Sparks, flames and other sources of ignition near the product must be avoided.

### **8. Exposure Controls/Personal Protection**

- **Exposure Control**

- The level of protection and types of controls necessary will vary depending upon potential exposure conditions.
- Select controls based on the risk assessment of local circumstances.
- Where material is heated, sprayed or mist formed, there is a greater potential for airborne concentrations to be generated.
- Eye wash and showers for emergency use.

- **Personal protective equipment**

- Heat-resistant or chemical-resistance gloves with close-fitting cuffs.
- Heat-resistant with close-fitting boots.
- Overalls with close-fitting cuffs. Safety visor to protect the entire face.
- Respirators if fume exposure is likely to exceed occupational standards.  
Avoid breathing bitumen fumes and avoid contact with the product.

- **Respiratory protection**

- No respiratory protection is required under normal conditions of use.  
Use self-contained breathing apparatus in places where hydrogen sulphide vapors may accumulate

- **Eye Protection**

- For normal operations with hot material, wear safety hat with visor.

- **Environmental exposure control**

- Minimize release to the environment.

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### 9. Physical and Chemical Properties

<b>Appearance</b>	<i>Black liquid</i>
<b>Odor</b>	<i>Kerosene</i>
<b>Kinetic Viscosity @ 60°C</b>	<i>30-60 cSt</i>
<b>Dynamic Viscosity @ 60°C</b>	<i>30-70 mPa.s</i>
<b>Specific gravity (g/cm<sup>3</sup>)</b>	<i>0.9-1.0</i>
<b>Solubility in water @ 20°C</b>	<i>Insoluble</i>
<b>Pour point °C</b>	<i>N/A</i>
<b>Boiling point °C</b>	<i>&gt; 163 °C</i>
<b>Flash point</b>	<i>&gt; 40 °C</i>
<b>Vapor pressure @ 20°C (mm Hg)</b>	<i>&lt; 10</i>

### 10. Stability and Reactivity

- **Conditions to avoid:** Temperatures above 190°C. Contact with water or polar substances.
- **Hazardous decomposition products:** Sulfur oxidizers, hydrogen sulphide and carbon monoxide.
- **Incompatibility:** Not compatible with water or polar substances.

### 11. Toxicological Information

- **ACUTE TOXICITY:**
  - *Oral:* Anticipated to be low toxicity: LD 50 > 5000 mg/kg.
  - *Dermal:* Anticipated to be low toxicity: LD 50 > 5000 mg/kg.
  - *Inhalation:* Not considered to be an inhalation threat under normal conditions of use. Avoid vapors from heated materials to prevent exposure to potentially toxic fumes.
- **IRRITATION:**
  - *Skin:* Anticipated to be slightly irritating. Contact with hot product may cause thermal burns which may results in permanent skin damage.
  - *Eye:* Expected to be slightly irritating

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➤ *Respiratory*: Inhalation of vapors or mists may cause irritating to the respiratory system.

- **CARCINOGENICITY:**

➤ Not classified as dangerous under EC criteria. It contains low concentrations of Polycyclic Aromatic Compounds (PACs). These PACs are not considered to be bioavailable. Despite the known presence of PACs there is no evidence that exposure to the product or their fumes are harmful.

- **MUTAGENICITY:**

➤ No history or data to support mutagenicity

- **REPRODUCTIVE HAZARDS:**

➤ No data found

### **12. Ecological Information**

- **ECOTOXICITY**

Not soluble in water. Practically non-toxic to aquatic organisms

LC/EC 50 > 100 mg/l

May cause physical fouling of aquatic organisms

- **PERSISTENCE**

Biodegradation

Not inherently biodegradable

- **Bioaccumulation**

Has the potential to bioaccumulate. In practice, the lower water solubility and high molecular weights of these substances are such that their bioavailability to aquatic organisms is limited and therefore bioaccumulation is unlikely.

- **Mobility**

Partly evaporates, but a significant portion will remain. If it enters soil it will absorb soil particles and will not be mobile.

### **13. Disposal Considerations**

- **Disposal methods**

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Waste product should not be allowed to contaminate soil or water. Waste arising from spillage or tank cleaning operations should be disposed of in accordance with prevailing regulations (Section 20(1) of the Environment Conservation Act) preferably by a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

- **Disposal of Packaging**

Bulk and Drum supply operations.

### **14. Transport Information**

- **UN Classification** : UN 1999
- **Proper Shipping name** : FLAMMABLE LIQUIDS
- **Technical name** : Cutback Bitumen
- **Class** : 3
- **Packaging Group** : 3
- **Marine Pollutant** : YES
- **Additional Information**: ITATA- Forbidden for transport on passenger and cargo aircraft. Not dangerous for conveyance under UN,IMO,ADR/RID,IATA codes if transported at ambient temp.

### **15. Regulatory Information**

- **EC Classification**: Flammable. Irritant. Dangerous for the Environment.
- **EC Symbols**: Xi Irritant.  
N Dangerous for the Environment
- **EC Risk Phrases** : R38 Irritating to skin  
R 51/53 Toxic to aquatic organism may cause long-term adverse effects in the aquatic environment.
- **EC Safety Phrases**: S 16 Keep away from sources of ignition- no smoking.  
S 23 Do not breathe fumes, vapor or spray.  
S 51 Use only in well-ventilated area.  
S 29 Do not empty into drains.



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S 61 Avoid release to the environment. Refer to special instructions/Safety Data Sheets.

- **EINEC:** All components listed or polymer exempt.
- **TSCA:** All components listed.
- **JEX (JP) :** All components listed
- **DSL :** All components listed
- **AICS :** All components listed
- **INV (CN) :** All components listed
- **PICCS (PH) :** All components listed

### **16. Disclaimer of Expressed and Implied Warranties**

No specific notes on this product.