



Lake Asphalt

## SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

**PRODUCT:** Cationic Bitumen Emulsion

**MANUFACTURER:** Lake Asphalt of Trinidad & Tobago (1978) Limited

Brighton La Brea

Trinidad and Tobago

Telephone No. +1(868) 648-7555/7572

**SYNONYMS:** CRS-1, CRS-2, CMS-2, CSS-1, CSS-1h

**PRODUCT USE:** Road maintenance applications, tack coating

**DATE OF PREPARATION/REVISION:** 19<sup>th</sup> April, 2024

### 2. COMPOSITION, INFORMATION ON INGREDIENTS

Cationic bitumen emulsions consist of specified quantities of bitumen emulsified in water. Other active ingredients include an amine-based surfactant, hydrochloric acid, kerosene and calcium chloride.

### 3. HAZARDS IDENTIFICATION

**PHYSICO-CHEMICAL:** Storage and handling of the product at high temperatures will cause burns (50°C - 85°C). Heated asphalt can cause severe skin burns and eye injury.

**ENVIRONMENTAL IMPACT:** Spillage of product into waterways or onto soil results in adsorption to ground material causing physical fouling.

**HEALTH:**

*Route of Exposure:*

Skin contact, Eye contact, Inhalation, Ingestion

*Acute Exposure Effects:*

Amine emulsifier, acid component, hot asphalt and asphalt fumes (containing carbon dioxide, carbon monoxide, unburnt hydrocarbons) cause severe irritation and burns to eyes. Moderate to severe irritation and burns may occur on contact with skin. Gastrointestinal irritation and vomiting occur on ingestion. Moderate to severe irritation of ear, nose, throat and respiratory tract.

## PRECAUTIONARY STATEMENTS

- Keep out of reach of children.
- Keep away from heat, hot surfaces, sparks and open flames. No smoking.
- Avoid breathing fumes.
- Wash contaminated skin thoroughly after handling.
- Use only outdoors or a well-ventilated area.
- Wear full PPE.
- Store in a well-ventilated area. Keep lid tightly closed.
- Dispose of in accordance with environmental regulations.

## 4. FIRST AID MEASURES

**EYES:** Immediately flush eyes with water for at least 15 minutes. Remove deposits around eyes, eyelashes and eyebrows by wiping carefully with a soft cloth soaked in medicinal paraffin oil; do not force eyelids open. If irritation persists, seek medical attention.

**SKIN:** Immediately cool the affected area in cold water. Remove contaminated clothing. Use a medically approved solvent to help remove cold asphalt that has adhered to the skin. Wash affected area with soap and water. Avoid abrading the skin during washing. If irritation persists, seek medical attention. **DO NOT USE** solvents or thinners.

**INGESTION:** Ingestion is not likely. If it occurs, do not induce vomiting and seek immediate medical attention.

**INHALATION:** Move to fresh air in case of accidental inhalation of vapours (generated at elevated temperatures). If symptoms or irritation occur, seek prompt medical attention.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT:** >177 °C

**FLAMMABLE LIMITS:** Upper: NA, Lower: NA

**AUTO IGNITION TEMPERATURE:** NA

**EXTINGUISHING MEDIA:**

Carbon Dioxide, Dry Chemical, Foam. Caution: Do not use water.

**FIRE FIGHTING PROCEDURES:**

Isolate area around container involved in fire. Use water to cool tanks, shells, and containers exposed to fire and excessive heat. Avoid spraying water directly into containers due to danger of violent eruption and spreading of burning molten asphalt.

**SPECIAL EQUIPMENT:**

Fire-fighters should wear appropriate protective equipment including flame-retardant coat, helmet with face shield, gloves, rubber boots and positive pressure self-contained breathing apparatus with full-face mask.

## 6. ACCIDENTAL RELEASE MEASURES

**LEAK AND SPILL PROCEDURE:**

Shut off any heat source and ventilate spill area. Dike spills with sand, earth or non-flammable, absorbent material. Clean contaminated area with water and detergent.

Prevent entry into drainage/sewage systems.

## 7. HANDLING AND STORAGE

**HANDLING:**

Avoid excessive heating and oxidizing materials.

Handle as bulk goods.

Wear personal protective equipment.

**STORAGE:**

Keep away from oxidizing materials.

Do not store at temperatures above 100°C.

Store as bulk goods.

Store above freezing temperatures.

Keep away from ignition sources.

Keep containers tightly closed.

**8. EXPOSURE CONTROLS, PERSONAL PROTECTION****ENGINEERING CONTROLS:**

Ensure there is sufficient ventilation of the area. Ventilate confined spaces before entry.

Maintain vapour/fume levels below recommended exposure standards.

**PERSONAL PROTECTIVE EQUIPMENT:**Hand:

When handling product at elevated temperatures, use long-cuffed leather or heat resistant gloves. Neoprene or PVC gloves.

Eyes:

Chemical eye protectors (goggles/side-walled spectacles)

Clothing:

Heat resistant clothing

Footwear:

Safety boots

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE:** Form: Liquid

Colour: black/brown matte

**ODOUR:** Mild petroleum. Elevated temperatures may yield sulphurous odour.

**pH:** 2 - 6

**VAPOUR PRESSURE:** 24 mmHg @ 77°F

**VAPOUR DENSITY:** (Air = 1): N.A.

**FREEZING POINT:** 0°C

**FLASH POINT:** > 177 °C

**MELTING POINT:** N.A.

**BOILING POINT:** N.A.

**AUTOIGNITION TEMPERATURE:** N.A.

**DECOMPOSITION TEMPERATURE:** N.A.

**SPECIFIC GRAVITY:** 1.00 - 1.02 @ 25 °C

**EVAPORATION RATE:** N.A.

**SOLUBILITY:** Partially miscible with water

**ODOUR THRESHOLD:** N.A.

## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal conditions.

**REACTIVITY:** Non-reactive under normal conditions of storage and transport.

**CONDITIONS TO AVOID:** Avoid temperatures exceeding flash point. Do not overheat.

**MATERIALS TO AVOID:** Strong oxidizing agents and strong bases.

**HAZARDOUS COMBUSTION PRODUCTS:** Upon decomposition, product may yield sulphur dioxide, carbon dioxide, carbon monoxide, hydrogen sulphide and low molecular weight hydrocarbons.

## 11. TOXICOLOGICAL INFORMATION

**ACUTE TOXICITY:** No specific acute toxicity data is available for the formulation but the product is expected to have low toxicity with skin contact, ingestion and inhalation.

**INHALATION:** Inhalation of fumes from warm product may lead to slight irritation of the upper respiratory tract.

**SENSITIZATION/IRRITATION:** The product is not known to be a skin sensitizer, although condensed bitumen fume is likely to slightly irritate the skin. The product contains amines which may could cause skin and eye irritation among sensitive individuals.

**CHRONIC TOXICITY:** No tests have been performed on the product. According to the properties for the components the product is not expected to present a chronic toxic hazard.

## 12. ECOLOGICAL INFORMATION

This product contains environmentally hazardous components but is not classified as harmful to the environment. There is no specific acute or chronic eco-toxicity data for the product.

### **MOBILITY:**

In contact with water, the emulsion will dissipate across the surface and will be diluted, the bitumen phase will be dispersed. The bitumen phase may agglomerate in narrow channel (e.g. water filled ditches) and will normally sink to the sediment, however in circumstances where the bitumen is less dense it may float.

### **DEGRADABILITY:**

Not expected to be biodegradable.

### **BIOACCUMULATION:**

#### Bitumen:

The low water solubility and high molecular weight make bio-availability to aquatic organisms limited.

#### Solvent:

This product has a potential to bio-accumulate.

Emulsifying Agent:

This product has a potential to bio-accumulate.

### 13. DISPOSAL CONSIDERATIONS

#### WASTE DISPOSAL:

Recycle and reuse material if possible. Off-site spills should be dealt with according to relevant legislation. Transfer to a suitable container and arrange for collection by specialised disposal company.

### 14. TRANSPORT INFORMATION:

Always transport in upright, secure vessels. Handling personnel must be aware of mitigating actions in event of spillage or accident.

**UN NUMBER:** Not regulated

**PACKING GROUP:** Not applicable

**HAZARD CLASS:** Not applicable.

**PROPER SHIPPING NAME:** Not applicable.

#### INTERNATIONAL REGULATIONS:

IATA:

Not regulated as a dangerous good

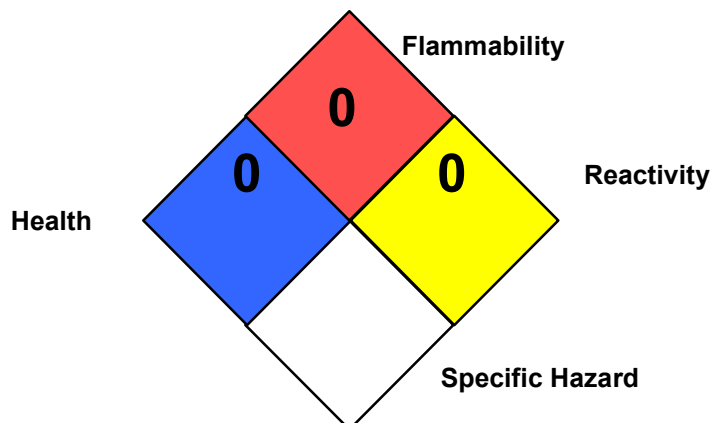
IMDG:

Not regulated as a dangerous good

### 15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the UN GHS and the SDS contains all the information required by the GHS.

## 16. OTHER INFORMATION



### NATIONAL FIRE PROTECTION ASSOCIATION (U.S.A.)

**HEALTH: 0** - No hazard beyond that of ordinary combustible material.

**FLAMMABILITY: 0** - Must be preheated to high temperature before ignition can occur.

**REACTIVITY: 0**

**SPECIFIC HAZARD: None**

### DISCLAIMER

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