

# SDS

## SAFETY DATA SHEET



### BI-STATE EMULSIONS LLC CATIONIC EMULSIFIED ASPHALTS

#### SECTION 1- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	CRS-2, CRSP, CRS-2P, CSS-1H, CSS-1HP, CSS-1HLM CPEM-1, CHFRS-2P, RSP
RECOMMENDED USE:	ROAD CONSTRUCTION EMULSIONS
MANUFACTURER'S NAME:	BI-STATE EMULSIONS LLC
ADDRESS:	3714 Big Bend Ind. Ct., Maplewood, MO 63143
BUSINESS PHONE:	314-645-1818
EMERGENCY PHONE:	800-633-8253
WEB SITE:	<a href="http://www.missouripetroleum.com">www.missouripetroleum.com</a>
DATE OF PREPARATION:	February 11, 2014
DATE OF LAST REVISION:	April 11, 2017

#### SECTION 2- HAZARDS IDENTIFICATION

	<b>Warning</b>		
	Hot product can cause burns. Irritant: causes eye, skin, and respiratory irritation Hot product can release Hydrogen Sulfide Gas Read SDS for further details		

#### EMERGENCY OVERVIEW:

Cationic asphalt emulsions are a dark brown to black viscous liquid, emitting a subtle petroleum odor.

#### HEALTH HAZARDS:

Exposure to these products can irritate the eyes, respiratory system, and skin. Hot products can cause severe thermal burns. If burned, cool the affected area immediately with cool running water. Always seek medical attention in the case of severe thermal burns. Prolonged or repeated skin contact can cause drying of the skin which may produce irritation or dermatitis. When heated, these products may release toxic hydrogen sulfide. Long-term exposure to high concentrations of asphalt vapors have been known to cause chronic bronchitis and pneumonitis.



#### FLAMMABILITY:

These products are not classified as flammable or combustible material.

#### ENVIRONMENTAL EFFECTS:

The environmental effects of these products have not been investigated, but are not expected to be toxic to aquatic organisms.

## SECTION 2: HAZARD IDENTIFICATION (CONTINUED)

Transportation Identification		
US DOT Symbols	Canada (WHMIS) Symbols	European and (GHS) Hazard Symbols
Non-Regulated		 <span style="float: right;">Signal Word: Warning</span>

### EU LABELING AND CLASSIFICATION:

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE ACCORDING TO REGULATION (EC) No1272/2008 annex I.

EC# 231-977-3 Index# 016-001-00-4

Ec# 232-

490-9 This substance is not classified in the Annex I of Directive 67/548/EEC

**COMPONANTS CONTRIBUTING TO HAZARD:**

All Components

**GHS HAZARD CLASSIFICATIONS:**

Acute Toxicity Inhalation Category 4

**HAZARD STATEMENTS:**

H315: Causes skin irritation  
 H319: Causes serious eye irritation  
 H332: Harmful if inhaled  
 H335: May cause respiratory irritation

**PRECAUTIONARY STATEMENTS:**

P260: Do not breath dust/fume/gas/mist/vapors/spray  
 P264: Wash hands thoroughly after handling  
 P271: Use only in well ventilated area.  
 P280: Wear protective gloves, protective clothing, eye protection, and/or face protection

**HAZARD SYMBOLS:**

[Xn] Harmful

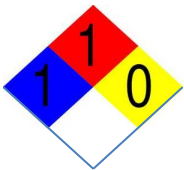
**RISK PHRASES:**

R26: Very toxic by inhalation  
 R36/37/38: Irritating to eyes, respiratory system and skin

**SAFETY PHRASES:**

S24/25: Avoid contact with skin and eyes  
 S36: Wear suitable gloves and eye/face protection  
 S37/39: Wear suitable gloves and eye/face protection  
 S45: In case of accident or if you feel unwell, seek medical advice immediately

### NFPA HAZARD IDENTIFICATION

NFPA HAZARD IDENTIFICATION	DEGREE OF HAZARD	HAZARD RATINGS
	HEALTH: 1 FIRE: 0 REACTIVITY: 0	0 = LEAST 1 = SLIGHT 2 = MODERATE 3 = HIGH 4 = EXTREME

## SECTION 2: HAZARD IDENTIFICATION (CONTINUED)

**Acute**

**EYE CONTACT:** Contact from emulsions and/or fumes directly to and around the eye can cause irritation including but not limited to; stinging, watering and redness. Hot product can cause thermal burns to the eyes. In any case, immediate medical treatment should be sought to protect the eye from damages.

**SKIN CONTACT:** Contact to the skin can cause mild irritation. Prolonged exposure with asphalt emulsions can cause discoloration, and heighten the skin sensitivity to the sun. Over time irritation can worsen causing dry skin, cracking, and even dermatitis. Heated emulsions and the fumes produced from the process can cause thermal burns. No harmful effects from skin absorption are to be expected.

**INHALATION:** Hot asphalt emulsions release fumes and/or vapors. These fumes and/or vapors can be smoke, carbon dioxide, carbon monoxide, and unburned hydrocarbons. Exposure to these fumes and/or vapors can cause irritation of the nose and throat, with symptoms of dizziness, headache, loss of coordination, and/or drowsiness.

These materials contain sulfur compounds which may form hydrogen sulfide. Hydrogen sulfide can be noticed by its rotten-egg odor. continued exposure to hydrogen sulfide(H<sub>2</sub>S) can deaden a person's sense of smell. At low levels of exposure, H<sub>2</sub>S causes eye irritation, and/or nose and throat irritation. Moderate levels of H<sub>2</sub>S can cause headache, dizziness, nausea, and vomiting, as well as coughing and difficulty breathing. Higher levels can cause shock, convulsions, coma and eventually death. When dealing with serious exposure symptoms usually begin immediately.

**INGESTION:** Do not ingest asphalt emulsions. Ingestion may cause thermal burns. Ingestion will result in irritation to the digestive tract, nausea, vomiting, and diarrhea.

**Chronic**

Breathing vapors or fumes from heated material may cause headaches, dizziness and lung irritation. Long-term exposure to high concentrations of asphalt fumes may cause chronic bronchitis and pneumonitis.

**TARGET ORGANS:** Acute: Eye, Respiratory System, Skin  
Chronic: Respiratory System

**SECTION 3: COMPOSITION and INFORMATION on INGREDIENTS**

HAZARDOUS	CAS#	EINECS#	ICSC#	WT%	HAZARD CLASSIFICATION RISK
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INGREDIENTS	CAS#	LINCS#	ICSC#	WT%	PHRASES
ASPHALT	8052-42-4	232-490-9	0612	25-75%	HAZARD CLASSIFICATION: [Xn] HARMFUL, [Xi] IRRITANT RISK PHRASES: R26,R36/37/38
WATER	7732-18-5	231-791-2	NOT LISTED	25-75%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
EMULSIFIERS	TRADE SECRET	TRADE SECRET	NOT LISTED	0.1-6%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
<b>MAY CONTAIN ONE OR MORE OF THE FOLLOWING</b>					
POLYMERS OR LATEX	TRADE SECRET	NOT LISTED	NOT LISTED	0-5%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
DILUENT	TRADE SECRET	TRADE SECRET	NOT LISTED	0-10%	HAZARD CLASSIFICATION: NONE RISK PHRASES: NONE
HYDROGEN SULFIDE	7783-06-4	231-977-3	0165	<0.1%	HAZARD CLASSIFICATION: [T]TOXIC RISK PHRASES: R26

## SECTION 4- FIRST-AID MEASURES

### EYE CONTACT:

In the event of a thermal burn to the eyes; rinse eyes with cool water (not iced), and immediately seek medical attention. In the case of irritated eyes from fumes, flush with cool water. If the irritation persists seek medical assistance.

### SKIN CONTACT:

Wash with cool water for mild irritation. If there is a thermal burn soak area in cool water for 15 minutes. In the case of a thermal burn DO NOT attempt to remove the emulsion and/or clothing as it may be adhered to the skin. Immediately seek medical assistance.

### INHALATION:

Move the infected person to fresh air. If symptoms do not subside seek medical assistance. If a person is not breathing, clear the airway, and begin artificial respiration. Seek medical assistance immediately.

### INGESTION:

Do not induce vomiting, have the person drink plenty of water, and immediately call poison control or seek medical attention.

## Section 5- Fire-Fighting Measures

### FLASH POINT:

Not classified as a flammable or combustible material

### AUTOIGNITION TEMPERATURE:

Not applicable

Flammable limits (in air by column, %): Lower (LEL): NA Upper (UEL): NA

OSHA FLAMMABILITY CLASS: Not classification as flammable or combustible material

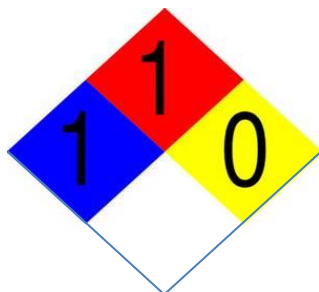
FIRE EXTINGUISHING MATERIALS: Dry chemical, water spray, foam spray, and carbon dioxide is recommended.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Although these products will burn, they will not readily ignite. Flammable and toxic hydrogen sulfide gases may form in the headspaces of tankers. The flammability of these spaces are contingent upon the values given for asphalts.

Explosion Sensitivity to Mechanical Impact: Not Sensitive

Explosion Sensitivity to Static Discharge: Not Sensitive

SPECIAL FIRE-FIGHTING PROCEDURES: Cool burning areas with selected fire extinguishing materials. If at all possible keep runoff water out of storm drains, and bodies of water. Use eye protection, and in the case of structural fires, firefighters must wear Self-Contained breathing apparatuses with full protective equipment.



## SECTION 6: ACCIDENTAL RELEASE MEASURES

**GENERAL:** Before any action takes place make sure the area is safe and clear. Clear the area of all igniters, and contain the spill if applicable. For small spills mix in an absorbing agent and shovel into a container for disposal. For larger spills contain and mix with only inert materials. Avoid using combustive absorbers such as sawdust. contain spills, and/or run offs from entering drainage ditches or water. If the spill has reached navigable waters, contiguous zones, or adjoining shorelines. notify the national response center. (Phone Number 800-424-8802)

**WASTE DISPOSAL METHOD:** Dispose of asphalt emulsions according to Federal, State, provincial and local regulations.

## SECTION 7: HANDLING and STORAGE

**WORK AND HYGIENE PRACTICES:** These products can impose serious threats. To prevent any harmful measures, avoid getting this product on you, or in you. Wash hands thoroughly after handling these products. Do not eat, drink, smoke, or apply cosmetics while working with this product. Always use in a well ventilated area. Avoid breathing the vapors. Remove or

change clothing that have been soiled by these products immediately.

**STORAGE AND HANDLING PRACTICES:**

Always take the proper precautions to ensure you and the people around are safe. Use proper control measures while working with these products. Store in properly closed containers that are correctly labeled, and located in a well ventilated area. Normal storage temperatures for these products are anywhere between 70° and 190° degrees. If these products are stored above or below these temperatures it can cause degradation to the product. These products can produce harmful hydrogen sulfide (H<sub>2</sub>S) gases, that can become trapped in the open cavities of the tanks/vessels used to hold the product. Before entering any tank/vessel carrying these products it should first determine if there is a presence of (H<sub>2</sub>S). When opening tanks/vessels carrying these products always use eye protection and gloves. Tanks/Vessels can become pressurized, take precautions opening man ways covers, valves, and lids.

When storing these products in tanks that have heating options, make sure that all flues and/or heating coils are covered. Do not overheat these products doing so can be hazardous.

**SECTION 8: EXPOSURE CONTROLS-PERSONAL PROTECTION**

CHEMICAL NAME	CAS#	ACGIH TWA	OASH TWA	NIOSH
ASPHALT	8052-42-4	0.5 MG/M <sup>3</sup>	NOT LISTED	0.5 MG/M <sup>3</sup>
HYDROGEN SULFIDE	7783-06-4	1 PPM TWA	20 PPM CEILING	10 PPM

The ACGIH TLV is 0.5 mg/m<sup>3</sup> as the benzene extractable portion of the inhalable fraction of asphalt fume. The TLV may also be determined by unspecified "equivalent" methods. Currently, international exposure limits are not established for all of the components of this product. please check with competent authority in each country for the most recent limits in place.

**SECTION 8: EXPOSURE CONTROLS-PERSONAL PROTECTION (cont.)**

**ENGINEERING CONTROLS FOR VENTILATION:**

Use local exhaust or general dilution ventilation when using at elevated temperatures or during activities that generate vapors, to maintain levels below the aforementioned exposure limits. Eye wash and safety showers should be located near the work areas.

*The following information on appropriate personal protective equipment is provided to assist employers in compliance with OSHA*

regulations found in 29 CFR subpart I (beginning in 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Always check with local standards and practices for relevant details before handling this product

**RESPIRATORY PROTECTION:** Under normal conditions respiration is not necessary. If at all possible keep these products airborne contaminant concentrations below the guidelines listed above. If ventilation fails and respiration protection is needed, only use protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member States.

**EYE PROTECTION:** Wear safety glasses or chemical goggles that will prevent eye contact for the given situation. Use safety glasses that are accepted by U.S. OSHA 29 CFR 1910.132, Canadian CSA/ANSI codes. Like always, check local safety and practices standards.

**HAND AND BODY PROTECTION:** Always wear hand protection suitable for the task at hand. When handling this product use chemical resistant gloves to prevent skin contact. If handling the product while hot always wear insulated gloves. When dealing with these products it may be necessary to wear body protection such as, aprons, arm covers, face shield, or boots. For further safety refer to U.S. OSHA 29 CFR 1910.138 or appropriate standards of CSA/ANSI. Always work in accordance to local safety standards.

## SECTION 9: PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL STATE:	Viscous liquid	BOILING POINT:	>200°F
APPEARANCE:	Tan or Dark liquid	pH:	2-7.0
ODOR:	Mild Odor	SPECIFIC GRAVITY:	.98-1.15
ODOR THRESHOLD:	Mild	SOLUABILITY IN WATER:	Miscible
VAPOR PRESSURE (MMHG):	Not Available	VISCOSITY:	Varied
EVAPORATION RATE (nBuAc=1):	Not Available		
SOFTENING POINT:	Not Applicable		
MELTING POINT:	Not Applicable		

## SECTION 10: STABILITY and REACTIVITY

**STABILITY:** These products are classified as stable.

**DECOMPOSITION PRODUCTS:** These products can produce hydrogen sulfide if heated.

**MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:** These products should not be mixed with anionic asphalt emulsions, or asphalt that has not been emulsified. These products could react negatively with strong oxidizing agents, including but not limited to chlorates, nitrates, peroxides.

**HAZARDOUS**

Will not occur.

**POLYMERIZATION:**

**CONDITIONS TO AVOID:**

Avoid heating in excess of 200° F, and contact with incompatible materials

## SECTION 11: TOXICOLOGICAL INFORMATION

**TOXICITY DATA:**

There is no toxicity data available for these mixtures

	Cas# 8052-42-4	Asphalt	
Acute Oral Toxicity LD50		5,001 mg/kg	Rat
Acute Dermal Toxicity LD50		2,001 mg/kg	Rat

**SUSPECTED CANCER**

**AGENT:**

These products contain ingredient(s) that have been found in one or more lists to be a suspected cancer-causing agent. Lists including but not limited to; FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC.

**IRRITANCY OF PRODUCT:**

These products can cause irritations of the skin, eyes, and respiration.

**SENSITIZATION OF  
PRODUCT:**

This product is not know to be a sensitizer.

**REPRODUCTIVE TOXICITY  
INFORMATION:**

There is no information linking these products to adverse affects to the human reproductive system.

**CARCINOGENICITY NOTE:**

While studies have shown asphalt fume condensate fractions applied to mice in lab studies cause skin tumors, there is no results that have found asphalt fume breathed for extended periods of time to cause carcinogenic effects.

Exposure to humans in the community on low levels have not produced data signifying asphalt fumes cause any carcinogenic effects. However, those people working in paving and roofing companies being exposed to asphalt fumes for extended period of times have found asphalt to be carcinogenic, as found by the National Institute of Occupational Safety and Health (NIOSH). Currently the National Toxicology Program (NTP), the Occupational Safety and Health Administration (OSHA) have no evidence supporting asphalt being a carcinogen.

## SECTION 12: ECOLOGICAL INFORMATION

**ENVIRONMENTAL STABILITY:**

These products show no significant signs of adverse effects on the environment.

**EFFECTS OF MATERIAL ON  
PLANTS OR ANIMALS:**

At this point in time there is no evidence on these products effects on plants and animals.

**EFFECT OF CHEMICAL ON  
AQUATIC LIFE:**

There is also no current evidence on these products effects on aquatic life. Latex, however, found in some of the products listed has been found to be harmful to aquatic life.



## SECTION 13: DISPOSAL CONSIDERATIONS

**DISPOSAL:** These products are not classified as hazardous materials under U.S. DOT, Canadian TDG regulations, EU Member States, Japan, or Australia. However, you should only dispose of these products in accordance to federal, state, providential, or local standards.

## SECTION 14: TRANSPORTATION INFORMATION

These products are non-regulated by the U.S. Department Of Transportation(DOT), Transport Canada, International Air Transport Association (IATA), International Maritime Organization, and the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR). They require no DOT labels, packing group, or UN identification Number. These products have not been assigned a Hazard Class Number, or North American Emergency Response Guidebook Number. None of these products(s) ingredient(s) have been classified by the DOT as a marine pollutant.

**These Products should be transported at ambient temperatures under 100°C**

## SECTION 15: REGULATORY INFORMATION

### UNITED STATES REGULATIONS

**TSCA:** All components are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals

**SARA REPORTING REQUIREMENTS:** These products are not subject to the reporting requirements of section 302, 304, and 313 of Title III of the Superfund Amendments and reauthorization act., as follows: THIS PRODUCT IS SUBJECT TO TIER II REPORTING REQUIREMENTS.

## SECTION 15: REGULATORY INFORMATION (CONTINUED)

### UNITED STATES REGULATIONS (CONT.)

<b>Sara 311/312</b>	Acute Health:	YES	Chronic Health:	YES
	Fire:	NO	Reactivity:	NO

**U.S. SARA THRESHOLD PLANNING QUANTITY:** There are no known Threshold Planning Quantities for these products. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lb may apply, per 40 CFR 370.20

**CALIFORNIA SAFE** These products contain ingredients found in the California

**DRINKING WATER AND  
TOXIC ENFORCEMENT ACT  
(PROPOSITION 65):**

Proposition 65 lists.

**U.S. CERCLA REPORTABLE  
QUANTITY (rq):**

None

**ATTENTION: THESE PRODUCTS CONTAIN AN INGREDIENT THAT IS KNOWN TO THE  
STATE OF CALIFORNIA TO CAUSE CANCER OF REPRODUCTIVE SYSTEMS.**

**CANADIAN REGULATIONS:**

**CANADIAN  
ENVIRONMENTAL  
PROTECTION ACT (CEPA)  
PRIORITIES SUBSTANCES  
LISTS:**

There are no components of these products on the CEPA First  
Priorities Substance Lists.

**CANADIAN WHMIS  
CLASSIFICATION AND  
SYMBOLS:**

These products are categorized as Class D Division 2B Materials  
causing other toxic effects as per the Controlled Product  
Regulations.

**CANADIAN DSL/NDL  
INVENTORY STATUS:**

All products and components of products are found on the DSL  
inventory list.

**SECTION 15: REGULATORY INFORMATION (CONTINUED)**

**EUROPEAN ECONOMIC COMMUNITY INFORMATION:**

Please refer back to section 2 for details

**JAPANESE INFORMATION FOR PRODUCT:**

**JAPANESE INFORMATION  
FOR PRODUCT:**

The products and components of the aforementioned products are  
not listed as Class I specified chemical substances, Class II specified  
chemical substances, or designated chemical substances by the  
Japanese MITI.

**AUSTRALIAN INFORMATION FOR PRODUCT:**

**AUSTRALIAN INVENTORY  
OF CHEMICAL SUBSTANCES**

The products and components of the products are listed on the  
AICS.

(AICS) STATUS: \_\_\_\_\_

**STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS:** Not applicable

**INTERNATIONAL CHEMICAL INVENTORIES:**

ASIA-PAC	LISTED
AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS):	LISTED
KOREAN EXISTING NATIONAL INVENTORY OF CHEMICAL SUBSTANCES (ENCs):	LISTED
PHILIPPINES INVENTORY IF CHEMICALS AND CHEMICALS SUBSTANCES (PICCS):	LISTED
SWISS GIFTLISTE LIST OF TOXIC SUBSTANCES	LISTED
U.S. TSCA	LISTED

**SECTION 16: OTHER INFORMATION**

PREPARED BY: **JAMES KUNKEL** SDS COMPLIANCE PLUS  
REVISION DATE: 2/24/2015

The information contained herein is based on the data available to us and is believed to be correct. However, Bi-State Emulsions makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. This information and product is furnished on the condition that the person receiving it shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of use thereof.

