



Safety Data Sheet

Cationic Asphalt Emulsion

SECTION 1. IDENTIFICATION

Product Identifier Cationic Asphalt Emulsion
Other Means of Identification CSS-H, CSS-1H, CQS-1h, CQS-1hP, CRS-2, CRS-2P
Recommended Use Microsurfacing and Slurry Seal
Restrictions on Use
Initial Supplier Identifier Duncor Enterprises Inc.
101 Big Bay Point Rd.
Barrie, Ontario
L4N 8M5
Canada
(705) 730-1999
Emergency Telephone Number CANUTEC (613) 996-6666

SECTION 2. HAZARD IDENTIFICATION

Classification This chemical is considered hazardous by the 2012 OHS hazard communication standard.

Skin Corrosion/Irritation	Category 2
Serious Eye Damage	Category 2A
Carcinogenicity	Category 2
Acute Aquatic Toxicity	Category 3

Label Elements



Other Hazards Hot liquid which may cause thermal burns
May release hydrogen sulfide gas



SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration %w/w	Common name / Synonyms	Other identifiers
Asphalt Cement	8052-42-4	55-70	Asphalt, Bitumen	
Co-polymer	9003-55-8	0-4	Latex	
Cationic Emulsifier	Mixture	0.5-2	Surfactant	
Phosphoric Acid	7664-38-2	<1	Acid	

Notes

SECTION 4. FIRST-AID MEASURES

Inhalation	Fumes or vapours released may result in irritation to the nose and throat as well as symptoms such as headache, dizziness, nausea, loss of coordination and drowsiness. If symptoms of overexposure to asphalt fume develop, move to fresh air in a position comfortable for breathing. If symptoms or irritation occur, call a poison control center or doctor.
Skin Contact	Direct exposure can cause skin irritation or severe burns. Chronic exposure may result in dry skin, dermatitis or defatting of skin.
Eye Contact	Contact to the eyes can result in irritation, redness, itching and severe burns. Eye exposures require immediate first aid treatment.
Ingestion	Avoid ingesting asphalt emulsion. Ingestion may result in thermal burns, nausea, vomiting, diarrhea and restlessness.
Adverse Effects	Frequent and/or prolonged contact with cold material may cause irritation. Additional effects may include skin sensitization. Exposure to hot melted material can cause thermal burns.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media Suitable	For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water fog can be used. For large fires, water spray, fog or foam (AFFF/ATC) can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment. Do not use straight streams. Water contact can cause violent eruption of hot asphalt.
Extinguishing Media Unsuitable	
Specific Hazards Arising from the Product	Flammable vapours can accumulate in closed systems or areas with insufficient ventilation. This product is not a combustible liquid but will ignite and burn at temperatures exceeding its flash point.
Hazardous Combustion Products	Smoke, carbon monoxide, and other products of incomplete combustion.
Special Protective Equipment and Precautions for Fire-Fighters	Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water spray and foam (AFFF/ATC) must be applied carefully to avoid frothing and from as far a distance as possible. Avoid excessive water spray application. Keep run-off water out of sewers and water sources.



SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures	Keep public away. Isolate and evacuate the area. Shut off source if safe to do so. Use personal protection measures as recommended in Section 8. Advise authorities if product entered a water course of sewer. Notify local health and pollution control agencies, if appropriate. Contain liquid with sand or soil.
Environmental Precautions	Avoid release to the environment. Avoid subsoil penetration.
Methods for Containment and Cleaning Up	Use suitable absorbent materials such as vermiculite, sand or clay to clean up residual liquids. Recover and return free product to proper containers.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	<p>Handle asphalt emulsion with care. Store material in closed containers with appropriate labels and in a cool well-ventilated area. Avoid breath fumes, gas or vapors, contact to skin, eyes and clothing. Take caution to prevent exposure to heat, open flames, strong oxidizers and other sources of ignition. Refrain from performing heat producing tasks on/near containers such as cutting, drilling, grinding or welding as they may contain flammable residues.</p> <p>Avoid contact with asphalt emulsion and use additional precautions when handling hot material. Minimize employee exposure, ensure adequate ventilation and ensure proper Person Protective Equipment is available at all times.</p>
Conditions for Safe Storage	Store in containers or tanks isolated from ignition sources or open flames. Avoid freezing of asphalt emulsions. Do not store above 90°C as temperatures above this value may cause boiling of the aqueous phase, resulting in overflowing of the container.
Incompatible Materials	Strong oxidizing agents.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH® TLV®		OSHA PEL	
	TWA	STEL	TWA	STEL
Asphalt Cement	0.5 mg/m3 TWA	-	-	-
Co-polymer				
Cationic Emulsifier				
Phosphoric Acid				

Appropriate Engineering Controls	Local or general exhaust required in an enclosed area or when there is inadequate ventilation.
Individual Protection Measures	



DUNCOR
ENTERPRISES INC.

Eye/Face Protection	To prevent contact of asphalt emulsion with eyes, wear CSA/ANSI approved safety goggles or face shields.
Skin Protection	When in contact with hot product, wear insulated chemical resistant gloves. Do not use barrier creams. Additional protection may be required to prevent exposure including aprons, arm covers, face shields and boots. Remove and clean asphalt emulsion soiled clothing. Thoroughly wash hands and/or exposed skin.
Respiratory Protection	Wear a NIOSH approved respirator that is properly fitted and in good condition when exposed to concentrated vapours.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Black/Brown Liquid
Odour	Petroleum Odour
Odour Threshold	N/A
pH	N/A
Melting Point and Freezing Point	0°C
Initial Boiling Point and Boiling Range	100°C
Flash Point	N/A
Evaporation Rate	N/A
Flammability (solid, gas)	N/A
Upper and Lower Flammability or Explosive Limit	N/A
Vapour Pressure	Negligible @25°C
Vapour Density (air = 1)	N/A
Relative Density (water = 1)	1.1-1.2
Solubility in Water	Negligible
Solubility in Other Liquids	N/A
Partition Coefficient, n-Octanol / Water (Log Kow)	N/A



DUNCOR
ENTERPRISES INC.

Auto-ignition Temperature	N/A
Decomposition Temperature	N/A
Viscosity	20-300 SFS (Saybolt Furol Seconds)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	This product is non-reactive under normal conditions.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Conditions to Avoid	Sources of heat or ignition.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	None known under normal conditions of use.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation Skin contact Eye contact Ingestion

Acute Toxicity

LC50	>94.4 mg/m ³ (Rat) 4h
LD50 (oral)	>5000 mg/kg (Rat)
LD50 (dermal)	>2000 mg/kg (Rabbit)
Notes	

Potential Short-term Adverse Effects from Overexposures

Inhalation	Fumes or vapours from the heated material may be irritating to the respiratory tract. May release highly toxic hydrogen sulfide gas that quickly fatigues the sense of smell.
Eye Contact	Vapours may cause eye irritation and sensitivity to light. Contact with hot material may cause thermal burns.
Skin Contact	May cause skin irritation. Contact with hot material may cause thermal burns.



DUNCOR ENTERPRISES INC.

Ingestion If swallowed at ambient temperature no significant adverse effects are expected. Ingestion of large amounts may cause gastrointestinal blockage. Swallowing hot material may cause burns to the mouth, throat and stomach.

Skin Corrosion / Irritation Not Classified

Serious Eye Damage / Irritation Not Classified

STOT (Specific Target Organ Toxicity) - Single Exposure Not Classified

Aspiration Hazard Not Classified

STOT (Specific Target Organ Toxicity) - Repeated Exposure Not Classified

Respiratory and/or Skin Sensitization May cause sensitization by skin contact. Not expected to be a respiratory sensitizer.

Carcinogenicity Suspected of causing cancer.

Notes

Reproductive Toxicity Development of Offspring Not Classified

Sexual Function and Fertility None Known

Effects on or via Lactation Not Classified

Germ Cell Mutagenicity Not Classified

Interactive Effects Not available

SECTION 12. ECOLOGICAL INFORMATION *(section heading must appear; all content is optional)*

Ecotoxicity This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

Persistence and Degradability Not expected to be readily biodegradable.

Bioaccumulative Potential Not expected to bioaccumulate in aquatic organisms.

Mobility in Soil Not likely to move rapidly with surface or groundwater flows because of its lower water solubility.

Other Adverse Effects N/A



SECTION 13. DISPOSAL CONSIDERATIONS *(section heading must appear; all content is optional)*

Disposal Methods

SECTION 14. TRANSPORT INFORMATION *(section heading must appear; all content is optional)*

Regulation	UN No.	Proper Shipping Name	Technical Name (for N.O.S. entry)	Transport Hazard Class(es)	Packing Group

Special Precautions TDG (Canada) Not Regulated.

Environmental Hazards

Transport in Bulk Not regulated.

According to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15. REGULATORY INFORMATION *(section heading must appear; all content is optional)*

Safety, Health and Environmental Regulations N/A

SECTION 16. OTHER INFORMATION

Date of Latest Revision 2/16/2017