



MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT INFORMATION

Product Name(s): Cationic emulsions including CRS-2, PMCRS-2, CQS-1H, PMCQS-1H, LMCQS-1H, MSE, PMCRS-2H

Producer's Name: Granite Rock Company

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SECTION 2 - HAZARDOUS INGREDIENT(S)

Chemical Names	CAS Number	Quantity (Percent)	Formula	Exposure Limits in Air		
				ACGIH TLV TWA ⁽¹⁾	OSHA PEL ⁽²⁾	NIOSH REL ⁽³⁾
Petroleum distillate (asphalt)	8052-42-4	58-63	various	0.5 mg/m ³ (as fumes)	--	--
Sodium hydroxide	1310-73-2	< 1	NaOH	2 mg/m ³	--	--
Hydrogen sulfide	7783-06-4	< 1	H ₂ S	10 ppm	20 ppm	--

(1) ACGIH TLV: American Conference of Industrial Hygienist Threshold Limit Value (TLV) time-weighted average (TWA).

(2) OSHA/MSHA PEL: Occupational Safety and Health Administration Permissible Exposure Limit for an 8-hour time weighted average.

(3) NIOSH REL: National Institute for Occupational Safety & Health, Recommended Exposure Limit

SECTION 3 - HAZARD IDENTIFICATION

Overview: Cationic emulsions are a proprietary mixture containing water, emulsifiers, and asphalt binder(s).

Potential Health Effects

Eye Contact: Direct contact may cause redness, irritation, and burning. Repeated or prolonged exposure may cause conjunctivitis.

Skin Contact: Direct contact with asphalt dust may also cause skin irritation. Long term exposure may lead to irritation, dermatitis, and acne-like lesions.

Ingestion: May cause nausea, gastrointestinal irritation and vomiting.

Inhalation: Fumes may irritate the nose, throat, and respiratory tract. Coughing, sneezing, chest pain, shortness of breath, inflammation of mucous membrane, and flu-like fever may occur following exposures in excess of appropriate exposure limits. If hydrogen sulfide is present at high concentrations, exposure may cause convulsions, coma, and death.

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SECTION 4 – FIRST-AID MEASURES

Eye contact: Immediately flush with plenty of water for at least 15 minutes. GET IMMEDIATE MEDICAL ATTENTION.

Skin contact: Immediately WASH WITH SOAP AND LARGE AMOUNTS OF WATER for at least 15 minutes. Clean skin with waterless hand cleaner. Seek medical aid if irritation persists or develops.

Inhalation: Remove from exposure. Seek medical aid if respiratory difficulty persists or develops.

Swallowed: SEEK MEDICAL AID. Do not induce vomiting.

SECTION 5 - FIRE AND EXPLOSION

Flash point: >450F

Extinguishing media: Agents approved for Class B fires (e.g., CO₂, dry chemical, or foam, water fog).

Special Fire Fighting Procedures: Use NIOSH/MSHA approved SCBA and full protective equipment.

Unusual Fire/Explosion Hazard: If hydrogen sulfide is present in sufficient quantities, flammable limits can increase to 4-45% by volume and pyrophoric iron compounds can be formed. In this case, use self-contained breathing apparatus (SCBA) in the pressure demand mode.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill Response Procedures: Remove all heat and ignition sources and increase ventilation. Use water vapor to reduce airborne vapors. For small spills, use sand or absorbent to capture. Place in sealed containers for disposal.

Preparing Waste for Disposal: Disposal must be in accordance with applicable federal, state, and local regulations. Enclosed-controlled incineration recommended, depending on jurisdiction.

SECTION 7 – HANDLING AND STORAGE

Respiratory Protection: None needed at ambient temperatures. If present in high vapors concentrations or TLV is exceeded, use NIOSH/MSHA approved supplied-air respirator.

Eye Protection: Safety glasses with side shields should be worn at all times.

Gloves: Nitrobutyl rubber or neoprene.

Other Clothing: Long sleeves.

Work Practices: Do not smoke.

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Hygiene Practices: Wash exposed skin with soap and water.

Other Handling Requirements: No special measures required.

Protective Measures During Maintenance of Contaminated Equipment: No special measures required.

Storage: Keep adequate ventilation in outside storage. Hydrogen sulfide gas may accumulate in storage tanks and bulk transport compartments containing asphalts.

SECTION 8 – EXPOSURE CONTROL/ PERSONAL PROTECTION

Eye Protection: Use a full-face shield and chemical safety goggles if handling heated material. If product is at ambient temperature, safety glasses with side shields are recommended. Keep an eye wash station in the work area if possible.

Hand Protection: When handling hot materials, wear long cuffed leather or heat-resistant gloves. If product is at ambient temperature, use chemical resistant or heavy nitrile rubber gloves.

Ventilation: Use exhaust system if using indoors or in confined space.

Respiratory: If outside and there is good ventilation, no respirator is necessary. If exposure is high or individual is sensitive, wear a NIOSH-approved, air-purifying filter suitable for dusts, fumes and mists.

SECTION 9 - PHYSICAL PROPERTIES

Vapor density (air=1):	N/A	Melting point:	N/A
Specific gravity:	1.0 – 1.04	Boiling point:	Approx 100C
Solubility in water:	unknown	Evaporation rate:	Negligible
Vapor pressure:	<0.1		
Appearance and odor:	Brown liquid, detergent odor		

SECTION 10 – ECOLOGICAL INFORMATION

This product is water soluble and will readily disperse in marine environments. As it mixes with water the insoluble hydrocarbons in this material will separate and float on the water. In sufficient quantity, the hydrocarbons can coat aquatic life and waterfowl which may cause injury or death. This product is expected to have a slow rate of biodegradation, but not expected to bioaccumulate through food chains.

SECTION 11 - STABILITY AND REACTIVITY

Reactivity: Material is stable and will not polymerize. May react with strong oxidizing agents such as chlorates, nitrates and peroxides. At room temperature, hydrogen sulfide may be given off.

Materials/Conditions to Avoid: High temperature heating.

Hazardous Decomposition Products: Heating this material may produce hydrogen sulfide.

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