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KR-56CDL

MATERIAL SAFETY DATA SHEET

FOR EMERGENCY ASSISTANCE
CALL: 1-800-424-9300 CHEMTREC

FOR ADDITIONAL INFORMATION
CALL: 412-321-9800

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: **KR-56CDL**
CHEMICAL DESCRIPTION: Dispersant blend traced with molybdate
PRODUCT CLASS: Boiler Water
VERSION: 7-12-2012

SECTION 2: INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Weight %	OSHA PEL	ACGIH TLV
Anionic polymer, sodium salt	Proprietary	1-10	None established	None established
Anionic copolymer sodium salt	Proprietary	1-10	None established	None established
Sodium molybdate dihydrate	10102-40-6	<2	TWA: 5 mg/m ³ *	TWA: 5.0 mg/m ³ *

*Soluble molybdenum compounds as Mo

SECTION 3: HAZARDS IDENTIFICATION

*****EMERGENCY OVERVIEW*****

Clear, colorless to yellow liquid.
Warning.
May cause mild eye and skin irritation.
If product mists are generated and inhaled, respiratory tract irritation may occur.

PRIMARY ROUTES OF ENTRY: Eye contact, skin contact, and inhalation of product mist.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Pre-existing skin problems may be aggravated by prolonged or repeated exposures.

EYE CONTACT: Contact may cause mild eye irritation.

SKIN CONTACT: Contact may cause mild skin irritation.

INGESTION: Ingestion may cause gastrointestinal irritation. This product, however, would not be expected to be toxic, unless very large quantities are ingested.

INHALATION: This product is not expected to present an inhalation hazard. If product mists are generated and inhaled, however, respiratory tract irritation may occur. Dizziness, headache, nausea, and flu-like symptoms may also occur. Persons with sensitive airways (e.g. asthmatics) may react to inhaled mists.

SUBCHRONIC, CHRONIC: No applicable information was found concerning any potential health effects resulting from subchronic or chronic exposure to this product.

This product contains <2% of sodium molybdate dihydrate therefore chronic effects from this component are not expected. Furthermore, systemic molybdate poisoning has not been reported to occur occupationally. However, sodium molybdate dihydrate was shown to be toxic in animal feed studies, causing death in rabbits at levels of 0.1% or higher within a few weeks. Signs of molybdate poisoning include: blood effects, loss of appetite, listlessness, diarrhea, and reduced growth rate. In studies with other animals, joint deformities occurred. Livers and kidneys of poisoned animals showed fatty degeneration.

CARCINOGENICITY:

NTP: No ingredients listed in this section

IARC: No ingredients listed in this section

OSHA: No ingredients listed in this section

ACGIH: Sodium molybdate dihydrate: A3,

Confirmed animal carcinogen with unknown relevance to humans

SECTION 4: FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally to ensure complete rinsing. Get medical attention if irritation occurs.

SKIN CONTACT: In a timely manner remove contaminated clothing and wash the affected area thoroughly with plenty of soap and water. Get medical attention if irritation occurs. Wash clothing before reuse.

INGESTION: If swallowed, do NOT induce vomiting. If victim is conscious and alert, rinse out mouth with water and give large quantities of water to drink. Get medical attention. Never give anything by mouth to an unconscious person.

INHALATION: If inhalation occurs, remove victim to fresh air. If breathing stops, give artificial respiration. If breathing is difficult, have a trained medical person give oxygen. Get medical attention if any breathing difficulties or irritation occurs.

SECTION 5: FIRE-FIGHTING MEASURES

FLASHPOINT: None

This product is not by definition a "flammable liquid" or a "combustible liquid".

LOWER FLAMMABLE LIMIT: Not applicable

UPPER FLAMMABLE LIMIT: Not applicable

AUTO-IGNITION TEMPERATURE: Not applicable

EXTINGUISHING MEDIA: This product is not expected to burn unless all the water is boiled off. If so, the remaining organics can burn. Use extinguishing media appropriate for the surrounding fire.

FIRE-FIGHTING INSTRUCTIONS: Exercise caution when fighting any chemical fire. A self-contained breathing apparatus and protective clothing are essential.

FIRE & EXPLOSION HAZARDS: Product emits toxic gases under fire conditions.

DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce oxides of carbon, nitrogen, sulfur, and sodium.

NFPA CODES:

Health = 1

Flammability = 0

Reactivity = 0

Special Hazard = None

Hazard Rating Scale: 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Ventilate the spill area. Keep unnecessary and unprotected people away from the spill site. Stop or reduce any leaks if it is safe to do so. Notify appropriate government, occupational health and safety, and environmental authorities.

METHODS FOR CLEAN-UP:

Small spills: Soak up spill with an inert absorbent material. Place residues in a suitable, covered, properly labeled container. Wash the affected area.

Large spills: Contain liquid using an inert absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Contact an approved waste hauler for disposal of contaminated recovered material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS: Prevent entry of spilled product into lakes, ponds, streams, waterways, or public water supplies.

SECTION 7: HANDLING AND STORAGE**HANDLING:**

Avoid contact with eyes, skin, and clothing.

Avoid breathing mist.

Use with adequate ventilation.

Wash thoroughly after handling.

Do not take internally.

Keep containers closed when not in use.

Ensure that containers are properly labeled.

Since empty containers retain product residues (vapors, liquid), observe all warnings and precautions listed for the product.

Have emergency equipment (for fires, spills, leaks, etc.) readily available.

STORAGE:

Store in a cool, dry, well-ventilated area away from incompatible materials.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE/FACE PROTECTION: Chemical splash goggles

SKIN PROTECTION: Chemical resistant gloves and clean body covering clothing

RESPIRATORY PROTECTION: Respiratory protection is not normally needed. If mists, vapors, or aerosols are generated, an approved respirator is recommended. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, and maintenance and inspection in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).

ENGINEERING CONTROLS: Use local and/or general exhaust ventilation to maintain airborne concentrations below irritating levels or airborne exposure limits, whichever is lower. Local exhaust is generally preferred because it can control the emission of the

contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, the most recent edition, for details.

WORK PRACTICES: An eye wash station and safety shower should be accessible in the immediate area of use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

pH: 6.5-7.5

SPECIFIC GRAVITY: 1.02-1.11 g/mL

SOLUBILITY IN WATER: Complete

BOILING POINT: Not available

VISCOSITY: Not available

FREEZING POINT: Not available

VAPOR DENSITY: Not available

APPEARANCE AND ODOR: Clear, colorless to yellow liquid with no odor

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: No specific information

INCOMPATIBILITIES: Strong oxidizers

DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce oxides of carbon, nitrogen, sulfur, and sodium.

SECTION 11: TOXICOLOGICAL INFORMATION

ON INGREDIENTS:

Test Material	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 (rat)
Anionic polymer sodium salt	>1,450 mg/Kg	>5,800 mg/Kg	Not available
Anionic copolymer	>1,400 mg/Kg	>560 mg/Kg	Not available
Sodium molybdate dihydrate	4,000 mg/Kg	Not available	2,080 mg/m ³ /4H

SECTION 12: ECOLOGICAL INFORMATION

ON INGREDIENTS:

Test Material	Aquatic Toxicity Data
Anionic polymer, 51.7% as acid*	48 hr EC50 (Daphnia): 1,509 mg/L 96 hr LC50 (Rainbow trout): 1,182 mg/L
Anionic copolymer	48 hr LC50 (Daphnia magna): 2,800 mg/L 96 hr LC50 (Rainbow trout): 4,900 mg/L 96 hr LC50 (Bluegill sunfish): >10,000 mg/L
Sodium molybdate	48 hr LC50 (Daphnia magna): 3,220 mg/L 96 hr LC50 (Rainbow trout): 7,340 mg/L

*Testing performed at near neutral pH

SECTION 13: DISPOSAL

RCRA STATUS: Discarded product, as sold, would not be considered a RCRA Hazardous Waste.

DISPOSAL: Dispose of in accordance with local, state, and federal regulations.

SECTION 14: TRANSPORTATION

DOT CLASSIFICATION:

UN Number: Not applicable

Proper Shipping Name: Not applicable

Primary Hazard Class/Division: Not restricted

Packing Group: Not applicable

Label: None

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Status: Hazardous

TSCA: The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA: EPA Hazardous Substances (40 CFR 302):

Chemical Name CERCLA Reportable Quantity (RQ)
None

SARA TITLE III (Sections 302, 311, 312, and 313):

Section 302 Extremely Hazardous Substances (40 CFR 355):

Chemical Name CAS# RQ TPQ
None

Section 311 and 312 Health and Physical Hazards:

Immediate Delayed Fire Pressure Reactivity
yes no no no no

Section 313 Toxic Chemicals (40 CFR 372):

Chemical Name CAS Number Percent by Weight
None

SECTION 16: OTHER INFORMATION

HMIS RATINGS: Health =1 Flammability = 0 Reactivity = 0

Hazard Rating Scale: 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe

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