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KR-109L

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-109L
CHEMICAL DESCRIPTION: Aqueous polymer solution
PRODUCT CLASS: Antiscalant Agent
VERSION: 2-15-08

SECTION 2: INFORMATION ON INGREDIENTS:

Chemical Name	CAS #	Weight %	OSHA PEL	ACGIH TLV
Based on our hazard evaluation, none of the substances in this product are hazardous. This product does not contain any substances having an exposure limit.				

SECTION 3: HAZARDS IDENTIFICATION:

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

Clear colorless to pale yellow liquid.
WARNING.
May cause mild eye and skin irritation.
Not an inhalation hazard unless mists, aerosols, or vapors are generated.
Inhalation of mists, aerosols, or vapors may cause respiratory tract irritation.

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

TARGET ORGANS: Eyes, skin, and respiratory system

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

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: Vapors or direct eye contact may cause mild irritation.

SKIN CONTACT: Repeated or prolonged skin contact may cause mild irritation.

INGESTION: This product is not expected to be hazardous by ingestion.

INHALATION: This product is not expected to present an inhalation hazard. If product mists, aerosols, or vapors are generated and inhaled, 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.

CARCINOGENICITY:

NTP: No ingredients listed in this section

IARC: No ingredients listed in this section

OSHA: No ingredients listed in this section

SECTION 4: FIRST AID MEASURES:

EYE CONTACT: In case of eye contact, flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids to ensure complete rinsing. Seek medical aid if symptoms occur.

SKIN CONTACT: In case of skin contact, remove contaminated clothing and wash the affected areas thoroughly with plenty of soap and water. Wash clothing before reuse. Seek medical aid if symptoms occur.

INGESTION: This product is expected to be practically non-toxic by ingestion. If swallowed, do NOT induce vomiting. Give one or two glasses of water. Call a physician.

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. Seek medical aid if symptoms develop.

SECTION 5: FIRE-FIGHTING MEASURES:

FLASHPOINT: None

Being an aqueous system, this product as supplied is not a fire hazard. However, after water is evaporated, the dry solids could burn.

LOWER FLAMMABLE LIMIT: Not available

UPPER FLAMMABLE LIMIT: Not available

AUTO-IGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA: Use an extinguishing media that is appropriate for the surrounding fire. Carbon dioxide may be ineffective on larger fires due to a lack of cooling capacity, which may result in reignition.

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 carbon monoxide, carbon dioxide, acrylate monomers, and hydrocarbons.

NFPA RATINGS: Health = 0 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: Do not touch spilled material. Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate the spill area if possible.

METHODS FOR CLEAN-UP:

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

Large spills: Contain liquid using 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).

SECTION 7: HANDLING AND STORAGE:

HANDLING:

Avoid contact with eyes, skin, and clothing.
Avoid breathing vapor or mist.
Use with adequate ventilation.
Wash thoroughly after handling.
Do not take internally.

Keep containers closed when not in use.
Have emergency equipment (for fires, spills, leaks, etc.) readily available.

STORAGE:

Store in a cool, 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 body covering clothing

RESPIRATORY PROTECTION: If airborne concentrations become irritating, use NIOSH approved respirator in accordance with OSHA respiratory protection requirements (29 CFR 1910.134).

ENGINEERING CONTROLS: Use local exhaust ventilation where mist or spray may be generated.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES:

pH: 7.0-9.0

SPECIFIC GRAVITY: 1.06-1.12 g/mL

SOLUBILITY IN WATER: Complete

BOILING POINT: Not available

FREEZING POINT: Not available

VAPOR PRESSURE: Not available

VAPOR DENSITY: Not available

APPEARANCE AND ODOR: Clear, colorless to pale yellow liquid with no odor or a mild odor.

SECTION 10: STABILITY AND REACTIVITY:

CHEMICAL STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Freezing temperatures and incompatibles

INCOMPATIBILITIES: Strong oxidizers

DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce carbon monoxide, carbon dioxide, acrylate monomers, and hydrocarbons.

SECTION 11: TOXOLOGICAL INFORMATION:

ON INGREDIENT:

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

SECTION 12: ECOLOGICAL INFORMATION:

ON INGREDIENT:

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

*Testing performed at near neutral pH

SECTION 13: DISPOSAL:

RCRA STATUS: This product would not be considered a RCRA Hazardous Waste.

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

SECTION 14: TRANSPORTATION

DOT CLASSIFICATION:

Proper Shipping Name: Not restricted

Primary Hazard Class/Division: Not applicable

UN Number: None

Packing Group: Not applicable

Label: Not applicable

SECTION 15: REGULATORY INFORMATION

OSHA Hazard Communication Status: Non-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)
No ingredients have a CERCLA RQ.

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

The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change, and the conditions of handling and use or misuse are beyond our control, Kroff Chemical Company, Inc. makes no warranty, either express or implied, with respect to the completeness or continuing accuracy of the information contained herein, and disclaims all liability for reliance thereon. User should satisfy himself that he has all current data relevant to his particular use.