

Material Safety Data Sheet
 May be used to comply with
 OSHA's Hazard Communication Standard.
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements.

U.S. Department of Labor
 Occupation Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (As Used on Label and List) Pretreat Plus™ 0100 Antiscalant		Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.	
Section I			
Manufacturer's Name King Lee Technologies		Emergency Telephone Number 1-800-424-9300 (Chemtrec)	
Address (Number, Street, City, State and ZIP Code) 8949 Kenamar Drive Bldg. 107		Telephone Number for Information (858) 693-4062	
San Diego, CA 92121		Date Prepared December 16, 2008	
		Signature of Preparer (Optional)	

Section II - Hazardous Ingredients/Identity Information

Other Limits

Hazardous Components (Specific Chemical Identity: Common Name(s))	OSHA PEL	ACGIH TLV	Recommended	% (optional)
This product is a proprietary formulation of generally available chemical ingredients.				
Complying with 29 CFR 1910.1200 (d), each ingredient in this formulation has been reviewed with the "Guide to Occupational Exposure Values - 2005" published by ACGIH. None of the ingredients have listed occupational exposure values, and can be considered generally safe if handled with due care a mild solution of the following acids:				
Phosphorous Acid CAS No. 2809-21-4, and related phosphonic acids.				

Section III - Physical/Chemical Characteristics H₂O Solution (NA= Not Applicable)

Boiling Point	> 100 ⁰ C	Specific Gravity (H ₂ O=1)	1.06
Vapor Pressure (mm Hg.) (at 20 ⁰ C)	As water.	Melting Point	NA
Vapor Density (AIR= 1)	NA	Evaporation Rate (Butyl Acetate= 1)	NA

Solubility in Water: Completely Soluble

Appearance and Odor: Clear, colorless, odorless solution.

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) NA	(Flammable Limits) NA	LEL NA	UEL NA
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Extinguishing Media: No Restrictions

Special Fire Fighting Procedures: Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

Unusual Fire and Explosion Hazards: Product can form flammable phosphine gas when heated above 250⁰ C

Section V - Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	X	Avoid heat and direct sun.

Incompatibility (Materials to Avoid)

Avoid contact with caustic and strong oxidizing agents.

Hazardous Decomposition or Byproducts

If involved in a fire, oxides of phosphorous may be generated. Phosphine gas may be formed when heated beyond the evaporation of all the water.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	NA

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
Health Hazards (Acute and Chronic)	Strong irritant; may cause burning of mucous membranes, eyes and skin		
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	NO	NO	NO

Signs and Symptoms of Exposure

Irritation and burning of eyes, skin, digestive or respiratory tract.

Medical Conditions

Generally Aggravated by Exposure Exposed wounds.

Emergency and First Aid Procedures

Eyes and skin - flush eyes with excess water. Wash from skin with soap and water. Inhaled - Remove subject to fresh air. Ingestion- rinse mouth and throat. Drink water or milk. In all cases, call or see a physician.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Stop spill/release if possible with minimal risk. Dike far ahead of spill for later recovery or disposal. Notify appropriate agencies. Immediate clean up recommended.

Waste Disposal Method

Incinerate recovered liquid accordance with local, state and federal regulations.

Flush residual spill with water into sewer.

Precautions to Be Taken in Handling and Storing

Store in sealed drums kept in cool, dry place.

Other Precautions

Wear protective equipment if possible.

Section VIII - Control Measures

Respiratory Protection (Specific Type)

Use NIOSH approved respirator if conditions warrant.

Ventilation	Local Exhaust (Under Normal use)	Special
	Special ventilation not required.	
	Mechanical (General)	Other
	NA	NA

Protective Gloves

Water impenetrable gloves that can be washed

Eye Protection

Chemical safety goggles recommendable

Other Protective Clothing or Equipment

Work overalls would prevent contamination of street clothes.

Work/Hygienic Practices

Wash gloves and hands before touching anything else.

Section IX - Transportation Information

DOT Hazardous Classification -

Not considered hazardous by the U.S. Department of Transportation (DOT)

TDG Canadian Transportation -

Not considered hazardous under Transportation of Dangerous Goods (TDG)

International Transportation -

Products has no UN number, and is not regulated under international rail, road, water or air transport regulations.

Section X - First Aid Measures

See Section VI

Section XI - Fire-Fighting Measures

See reactivity and hazardous decomposition by-products in Section V, and control measures in section VIII.

Section XII - Handling and Storage and Disposal

See Section VII

Section XIII - Toxicology Information

Possess no acute toxicological properties that would require special handling, other than good hygienic practices.

See also section VI - Health Hazard Data.

Section XIV - Ecological Information

96-hour LC₅₀: Rainbow trout=>3,500 ; Bluegill=>8,500

(mg/l) Daphnia=>4,000 ; Shrimps=>15,000 ; Minnow=>19,000 ; Midge Larvae=>85,000

Section XV - Regulatory Information

HMIS: Health=1 Fire=0 Reactivity=0 P=None

Section XVI - Other Information

This MSDS contains all information in accordance with the US and ECC regulations.