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Ver. No. 1  
Ver. Date June 22, 2000

**SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME Refresh™  
 PRODUCT CODES: 68112, 68114  
 CHEMICAL FAMILY: Inorganic/Organic  
 USE: Evaporator Cooler Treatment  
 MANUFACTURER / SUPPLIER  
 RectorSeal  
 2801 Spenwick  
 Houston, Texas 77055 USA

**EMERGENCY TELEPHONE NUMBERS:**  
 Chemtrec 24 hours: (800) 424-9300  
 RectorSeal: (713) 263-8001

**NON EMERGENCY TELEPHONE NUMBERS:**  
 Technical Service: (800) 231-3345

**SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS**

HAZARDOUS COMPONENTS	CAS NO.	APPROX	OSHA PEL	ACGIH TLV	OTHER LIMITS	HMIS	NFPA
		%					
n-Alkyl (98% C <sub>12</sub> , 2% C <sub>14</sub> )-dimethyl -1-naphylmethyl ammonium chloride							
-monohydrate	Mixture	10%	N/D	N/D	N/D	H2,F0,R0	N/D
Inert Ingredients	--	90%	N/D	N/D	N/D	N/D	N/D

**SECTION 3 HAZARDS IDENTIFICATION**

**SUMMARY OF ACUTE HAZARDS:** Causes irreversible eye damage and skin irritation.

ROUTE OF EXPOSURE	SIGNS AND SYMPTOMS	PRIMARY ROUTE(S)
<b>INHALATION:</b>	N/A	No
<b>EYE CONTACT:</b>	Corrosive: Causes irreversible eye damage.	Yes
<b>SKIN CONTACT:</b>	Skin irritation.	Yes
<b>INGESTION:</b>	May induce severe gastroenteric distress (vomiting, gastroenteric pain, and local corrosion and hemorrhages), prostration, anuria, hematuria, anemia, increase in white blood cells, icterus, coma, respiratory difficulties, and circulatory failure.	No

**SUMMARY OF CHRONIC HAZARDS:** None known.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Individuals with pre-existing or chronic diseases of the eyes and skin.

**SECTION 4 FIRST AID MEASURES**

**INHALATION:** N/A  
**EYE CONTACT:** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.  
**SKIN CONTACT:** Wash with plenty of soap and water. Remove contaminated clothing. If irritation occurs, seek medical attention.  
**INGESTION:** Call a doctor or get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.  
**Note to Physicians:** Probable mucosal damage may contraindicate use of gastric lavage. Measure against circulatory shock, respiratory depression and convulsion may be needed.

**SECTION 5 FIRE FIGHTING MEASURES**

**FLASH POINT:** Non-Combustible  
**FLAMMABILITY LIMITS:** LEL: N/A UEL: N/A  
**EXTINGUISHING MEDIA:** Use extinguishing media appropriate for surrounding fires.  
**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained full face piece breathing apparatus and other protective clothing. Dike area as runoff may create environmental contamination.  
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None known.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Avoid flushing into sewers, drains, waterways, and soil. Wear protective clothing during cleanup.

**SECTION 7 STORAGE AND HANDLING**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Do not get in eyes or on skin or on clothing.  
**OTHER PRECAUTIONS:** Empty packages may contain residues; treat as if full and observe all products precautions. Do not reuse empty packages.  
**KEEP OUT OF REACH OF CHILDREN.**

5976

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

RESPIRATORY PROTECTION (SPECIFY TYPE): Normally none required.  
 VENTILATION - LOCAL EXHAUST: Acceptable SPECIAL: N/A  
 MECHANICAL (GENERAL): Acceptable OTHER: N/A  
 PROTECTIVE GLOVES: Wear natural rubber or neoprene.  
 EYE PROTECTION: Chemical splash goggles (ANSI Z-87.1 or equivalent).  
 OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls recommended.  
 WORK/HYGIENIC PRACTICES: Where use can result in skin contact, wash exposed areas thoroughly before eating, drinking, smoking, or leaving work area. Launder contaminated clothing before reuse.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

BOILING POINT: N/A SPECIFIC GRAVITY (H<sub>2</sub>O = 1): 2.28  
 VAPOR PRESSURE (mm Hg): <0.01 @ 68°F (20°C) MELTING POINT: N/A  
 VAPOR DENSITY (AIR = 1): >1 EVAPORATION RATE (ETHYL ACETATE = 1): N/A  
 SOLUBILITY IN WATER: Soluble APPEARANCE/ODOR: Tablet / Perfumed

**SECTION 10 STABILITY AND REACTIVITY**

STABILITY: Stable  
 CONDITIONS TO AVOID: None known.  
 INCOMPATIBILITY (MATERIALS TO AVOID): None known.  
 HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO<sub>2</sub>, and fragmented hydrocarbons.  
 HAZARDOUS POLYMERIZATION: Will not occur.

**SECTION 11 TOXICOLOGY INFORMATION**

CARCINOGENICITY: NTP: No IARC MONOGRAPHS: No OSHA REGULATED: No  
 SUBSTANCE LD50 LC50  
 n-Alkyl (98% C<sub>12</sub>, 2% C<sub>14</sub>)-dimethyl  
 -1-naphylmethyl ammonium chloride  
 -monohydrate Oral-Rat LD50:240 mg/kg N/A

**SECTION 12 ECOLOGICAL INFORMATION**

FOOD CHAIN CON POTENTIAL	WATERFOWL TOXICITY	BOD	AQUATIC TOXICITY
N/D	N/D	N/D	N/D

Major Water Use Threatened:  
 Recreation, fisheries, potable supply.

**SECTION 13 DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: Dispose of clean up materials and liquid waste in accordance with all local, state and federal regulations.

**SECTION 14 TRANSPORTATION INFORMATION**

DOT: Non-Regulated  
 OCEAN (IMDG): Non-Regulated  
 AIR (IATA): Non-Regulated  
 WHMIS (CANADA): Non-Regulated

**SECTION 15 REGULATORY INFORMATION**

SUBSTANCE	SARA 313	TSCA INVENTORY	CERCLA RQ	RCRA CODE
n-Alkyl (98% C <sub>12</sub> , 2% C <sub>14</sub> )-dimethyl -1-naphylmethyl ammonium chloride -monohydrate	No	Yes	N/A	N/A

**SECTION 16 OTHER INFORMATION**

This document is prepared pursuant to the OSHA Hazardous Communication Standard (29 CFR 1910.1200). The information herein is given in good faith, but no warranty, express or implied is made. Consult RectorSeal for further information: (713) 263-8001.