MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 3 Flammability = 1 Reactivity = 0 **HMIS RATING:** Health = 3 Flammability = 1 Reactivity = 0

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (0720C)

Manufacturer's Name: HILLYARD INDUSTRIES
Address: 302 North Fourth Street Prepared: December 17, 2002

St. Joseph, MO 64501 **Prepared by:** Regulatory Affairs Department

Emergency Telephone No.: (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

Other information calls: (816) 233-1321 (Ext. 8285)

http://www.hillyard.com

SECTION II -- INGREDIENTS/IDENTITY INFORMATION

Components

(Specific Chemical Identity:			ACGIH	OTHER LIMITS	
Common Name(s)	CAS#	OSHA PEL	TLV	RECOMMENDED	%
Di-n-alkyl (C ₈ /C ₁₀ -50%, C ₁₀ /C ₁₀ -30%,	68424-95-3	not established	not established	N/A	1.2
C ₈ /C ₈ -20%) dimethyl ammonium chloride					
Alkyl (C ₁₄ -50%, C ₁₂ -40%, C ₁₆ -10%)	68424-85-1	not established	not established	N/A	0.8
dimethylbenzyl ammonium chloride					
Water	7732-18-5	none	none	N/A	
Urea	57-13-6	not established	not established	N/A	
Nonylphenol ethoxylate	9016-45-9	not established	not established	N/A	
Tetrapotassium pyrophosphate	7320-34-5	not established	not established	N/A	
Sodium carbonate	497-19-0	not established	not established	N/A	

^{*} Exposure may be evaluated as ceiling for Sodium hydroxide per OSHA: $PEL = 2 \text{ mg/M}^3$, or $TLV = 2 \text{ mg/M}^3$.

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: $211^{\circ}F$ **Specific Gravity** ($H_2O = 1$): $25^{\circ}C = 1.08$ & $39^{\circ}C = 1.08$

Vapor Pressure (mm Hg.): 17.6 Percent Volatile by Volume (%): 84%

Vapor Density (AIR = 1): 0.6 **Evaporation Rate (ethyl ether = 1):** slower than 1

Solubility in Water: complete **Appearance and Odor:** clear, colorless liquid; non-objectionable odor

pH (concentrate) = 11.5 - 12.5

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: None to 200°F Flammable Limits: LEL = N/A UEL = N/A

Extinguishing Media: Water, carbon dioxide, dry chemical or foam.

Special Fire Fighting Procedures: Must wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.

Unusual Fire and Explosion Hazards: Products of combustion are toxic.

SECTION V -- PHYSICAL HAZARDS

Stability: Stable **Conditions to Avoid:** N/A **Incompatibility (Materials to Avoid):** None known to Hillyard.

Hazardous Decomposition Products or Byproducts: When exposed to fire, produces oxides of carbon, nitrogen, sodium

and potassium.

Hazardous Polymerization: Will not occur Conditions to Avoid: None known to Hillyard

SECTION VI -- HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Ingestion? Yes

HEALTH HAZARDS (1. Acute and 2. Chronic)

- 1. Direct contact with concentrate in eyes or on skin may produce severe irritation and damage.
- 2. Inhalation of fine fog mist can cause irritation of mucous membranes. Use large droplet sprayer and adequate ventilation when spraying or use proper respiratory protection.

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No I.A.R.C. Monographs = No OSHA = No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

SECTION VI -- HEALTH HAZARD DATA cont.

Signs and Symptoms of Exposure: Direct eye contact with skin and eyes will result in skin and eye damage and/or severe irritation. Ingestion of concentrate may cause burning pain in mouth, throat, abdomen.

Medical Conditions Generally Aggravated by Exposure: No effects indicated.

Emergency and First Aid Procedures: In case of contact immediately flush eyes or skin with plenty of water for at least 15 minutes; hold eyelids apart to ensure rinsing of entire surface of eye and lids. Get immediate medical attention. Remove contaminated clothing and shoes. Wash clothing and decontaminate shoes before reuse. If swallowed drink promptly a large quantity of milk, egg whites, gelatin solution; or if these are not available drink large quantities of water. Avoid alcohol. Do not induce vomiting. If vomiting occurs, give fluids again. Have physician determine if patient's condition allows for induction of vomiting or evacuation of the stomach. Do not give anything by mouth to a convulsing or unconscious person. Get immediate medical attention. Inhalation: Remove from area to fresh air. Seek medical attention if respiratory irritation develops or breathing becomes difficult.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Corrosive material. Floors may become slippery with standing liquid. Wear appropriate protective gear and respiratory protection where mist or vapors of unknown concentrations may be generated (self-contained breathing apparatus preferred). Dike and contain spill with inert material (sand, earth, etc.) and transfer liquid and solid separately to containers for recovery or disposal. Keep spill out of sewers and open bodies of water.

Waste Disposal Method: Observe all applicable federal, state and local requirements regarding disposal. Waste from normal product use may be sewered to a public owned treatment works (POTW) in compliance with applicable federal, state and local pretreatment requirements. Container disposal: Triple rinse (or equivalent) then offer clean, dry container for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or incineration (if allowed by state and local authorities). If burned stay out of smoke.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Do not contaminate drinking water, food or feed by storage or disposal. Store at temperatures below 140°F (60°C).

Other Precautions: This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning and Community Right to Know Act of 1986 and 40 CFR Part 372.

SECTION VIII -- CONTROL MEASURES

Respiratory Protection (Specify Type): Where mist or vapors are generated by the process, a NIOSH/MSHA jointly approved respirator is advised in the absence of proper environmental controls.

Ventilation:

Local Exhaust = Recommended **Mechanical (General)** = Recommended **Special** = N/A **Other** = N/A **Protective Gloves:** Rubber or neoprene **Eye Protection:** Chemical splash goggles where there is potential for eye contact. **Other Protective Clothing or Equipment:** Use long sleeves, coveralls or other as appropriate to prevent skin contact.

Work / Hygienic Practices: Wash thoroughly after handling.

SECTION IX - TRANSPORTATION INFORMATION

Applicable regulations: DOT = No: **IMCO** = No: **IATA** = No

Proper shipping name: Cleaning compound

UN No.: not applicable Limited Qty.: not applicable Hazard Class: not applicable

Labels required: not required DOT Exception: not applicable

EPA Hazardous waste/number code: not listed

Hazardous waste characteristics:

Ignitability = $\underline{\text{not applicable}}$; **Corrosivity** = $\underline{\text{yes}}$; **Reactivity** = $\underline{\text{not applicable}}$

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