MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 1 Flammability = 0 Reactivity = 0 HMIS RATING: Health = /1 Flammability = 0 Reactivity = 0

SECTION I - IDENTITY AND MANUFACTURER'S INFORMATION (Ready to use)

Manufacturer's Name: HILLYARD INDUSTRIES Product Name: ARSENAL SPRAY CLEAN HD

Address: 302 North Fourth Street Date Prepared: July 31, 2001

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.hillvard.com

SECTION II -- INGREDIENTS/IDENTITY INFORMATION

OTHER LIMITS (Specific Chemical Identity: % ACGIH TLV RECOMMENDED OSHA PEL CAS# Common Name(s) 0.1-1% N/A 3 ppm 141-43-5 3 ppm Ethanolamine 1-5%N/A Dipropylene glycol methyl ether 34590-94-8 100 ppm 100 ppm N/A none none 7732-18-5 Water

V.O.S. (Diluted 1:10) = 3%

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 208°F Specific Gravity ($\text{H}_2\text{O} = 1$): 25°C 1.01 & $39^{\circ}\text{C} = 1.01$

Vapor Pressure (mm Hg.): 17.5 Percent Volatile by Volume (%): 99.26%

Vapor Density (AIR = 1): 0.74 Evaporation Rate (ethyl ether = 1): slower than 1

Solubility in Water: complete Appearance and Odor: Slightly hazy, dark purple liquid;

pH (concentrate): 11.3 mountain berry odor

ECTION IV -- FIRE AND EXPLOSION HAZARD DATA

rlash point: None (T.C.C.) Flammable Limits: LEL = N/A UEL = N/A

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

Special Fire Fighting Procedures: Normal fire fighting procedures may be used. Cool and cautiously approach or

handle fire-exposed containers.

Unusual Fire and Explosion Hazards: N/A

SECTION V -- PHYSICAL HAZARDS

Stability: Stable Conditions to Avoid: N/A

Incompatibility (Materials to Avoid): Oxidizing materials and strong acids

Hazardous Decomposition Products or Byproducts: Produces normal products of combustion when exposed to fire.

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

SECTION VI -- HEALTH HAZARD DATA

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

HEALTH HAZARDS (1. Acute and 2. Chronic)

1. When tested per the Federal Hazardous Substance Act concentrate was not considered a primary skin irritant but prolonged contact with eyes may cause irritation. It was not acutely oral toxic at 5 g./kg. Prolonged and repeated exposure to skin may produce irritation. DO NOT SPRAY CONCENTRATED PRODUCT. Only spray diluted product. Inhalation of fine fog mist can cause irritation of mucous membranes. Fine fog mist application is not recommended. Inhalation of spray mist may result in varying degrees of irritation .2. None known to Hillyard Inc.

Chemical listed as Carcinogen or Potential Carcinogen:

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

SECTION VI -- HEALTH HAZARD DATA continued

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%. Signs and Symptoms of Exposure: Concentrated product may produce skin and eye irritation. Ingestion may produce burns of the mouth, throat, esophagus and stomach.

Medical Conditions Generally Aggravated by Exposure: Skin problems such as industrial dematitis.

Emergency and First Aid Procedures: Inhalation: Remove person to fresh air. If breathing difficulty persists or occurs later, call physician. Skin and eye contact: Immediately flush with plenty of water for 15 minutes. Get prompt medical attention. Remove and wash all contaminated clothing before reuse. Ingestion: Immediately give large amounts of water and CALL A PHYSICIAN, hospital emergency room or poison control center.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Absorb with floor dry or similar inert material. Sweep or scrape up and put in appropriate container. Rinse spill area thoroughly with water. Use appropriate protective equipment. Waste Disposal Method: Disposal is regulated by the Resource Conservation and Recovery Act; concentrate is corrosive per EPA Hazardous Waste classification. Disposal of regulated quantities should be neutralized at a permitted facility in accordance with all federal, state and local requirements.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Container disposal: Triple rinse (or equivalent) then offer clean, dry container for recycling or reconditioning. Waste from normal use may be sewered to public-owned treatment works in compliance with applicable federal, state and local requirements. Other Precautions: Do not use with fog mist or fine droplet sprayer without respiratory protection. 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): No special air handling needed with diluted material in normal use. Ventilation:

Local Exhaust = Recommended Mechanical (General) =

Recommended

Special =

N/A

Other=

N/A

Other Protective Clothing or Equipment: Not usually necessary.

Work / Hygienic Practices: Wash thoroughly after handling.

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