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 (#949A)

Manufacturer's Name: HILLYARD INDUSTRIES Product Name: ARSENAL BONNET CLEANER

Address: 302 North Fourth Street **Date Prepared:** May 31, 2006

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)

SECTION II – INGREDIENTS/IDENTITY INFORMATION

Components

			OTHER LIMITS	
CAS#	OSHA PEL	ACGIH TLV	RECOMMENDED	%
7732-18-5	none	none	N/A	
68439-46-3	not established	not established	N/A	
64972-19-6)	not established	not established	N/A	
1643-20-5	Not established	Not established	N/A	
1300-72-7	Not established	Not established	N/A	
64-02-8	Not established	Not established	N/A	
S = 0.00%				
	7732-18-5 68439-46-3 64972-19-6) 1643-20-5 1300-72-7	7732-18-5 none 68439-46-3 not established 64972-19-6) not established 1643-20-5 Not established 1300-72-7 Not established 64-02-8 Not established	7732-18-5 none none 68439-46-3 not established not established 64972-19-6) not established not established 1643-20-5 Not established 1300-72-7 Not established 64-02-8 Not established Not established	CAS#OSHA PELACGIH TLVRECOMMENDED7732-18-5nonenoneN/A68439-46-3not establishednot establishedN/A64972-19-6)not establishednot establishedN/A1643-20-5Not establishedNot establishedN/A1300-72-7Not establishedNot establishedN/A64-02-8Not establishedNot establishedN/A

SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 204°F **Specific Gravity (H₂O = 1):** 25°C = 1.02 & 39°C = 1.02

Vapor Pressure (mm Hg.):17.8Percent Volatile by Volume (%):87.8%Vapor Density (AIR = 1):0.6Evaporation Rate (ethyl ether = 1):slower than 1Solubility in Water :Appearance and Odor:Yellow liquid, Herbal odor

pH (concentrate) = 7.69 **pH** (1:20) = 6.33

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Flash point: None to boiling 200°F (Tag Closed Cup) **Flammable Limits:** LEL = N/A UEL = N/A

Extinguishing Media: Foam, dry chemical, carbon dioxide, water spray. **Special Fire Fighting Procedures:** None known to manufacturer.

Unusual Fire and Explosion Hazards: Keep container closed when not in use.

SECTION V – PHYSICAL HAZARDS

Stability: Stable **Conditions to Avoid:** None known to Hillyard Industries.

Incompatibility (Materials to Avoid): Strong oxidizing materials

Hazardous Decomposition Products or Byproducts: As with any organic material, combustion will

produce carbon dioxide, carbon monoxide, water and unidentified organic compounds.

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

SECTION VI – HEALTH HAZARD DATA

Routes of entry: Inhalation? No Skin? No Ingestion? No

HEALTH HAZARDS (1. Acute and 2. Chronic)

1. When tested according to the Federal Hazardous Substance Act concentrated product was not considered to be a skin irritant; prolonged contact with the concentrate may produce severe skin irritation. When tested according to the Federal Hazardous Substance Act concentrate was considered to be a primary eye irritant. Acute oral toxicity on concentrated product is greater than 5 g/kg. Concentrated product was not shown to be acutely toxic when administered at a nominal concentration of 37.9 mg./L (Actual concentration of 72.7 mg./l) for one hour exposure. This was the maximum concentration that could be generated with this test system. 2. None known by Hillyard Industries.

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 continued

Signs and Symptoms of Exposure: None known to Hillyard Industries.

Medical Conditions Generally Aggravated by Exposure: Respiratory tract irritations may be aggravated by nuisance dust from excess dried solids.

Emergency and First Aid Procedures: In case of contact immediately flush eyes or skin with plenty of water for at least 15 minutes. Call a physician if irritation persists.

SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Large spill: Absorb with an inert material such as sand, earth or vermiculite. Small spill: Pick up with wet vac or mop.

Waste Disposal Method: Dispose of waste in accordance with state and local regulations. Container disposal: Triple rinse (or equivalent), then offer clean, dry container for recycling or reconditioning.

Precautions To Be Taken In Handling And Storing: Prevent product from entering drinking water supplies or streams.

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 of 40 CFR Part 372.

SECTION VIII - CONTROL MEASURES

Respiratory Protection (Specify Type): None required when used per label directions.

Ventilation:

Local Exhaust = Not necessary Mechanical (General) = Recommended Special = N/A Other = N/A

Protective Gloves: Not required with normal use. **Eye Protection:** Not required with normal use.

Other Protective Clothing or Equipment: No special clothing required.

Work / Hygienic Practices: Wash thoroughly after handling.

SECTION IX – TRANSPORTATION INFORMATION

Applicable regulations: 49 CFR = 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** = $\underline{\text{not applicable}}$ **Reactivity** = $\underline{\text{not applicable}}$

DISCLAIMER OF WARRANTIES

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.

The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.

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