

## MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 2 Flammability = 0 Reactivity = 0  
 HMIS RATING: Health = / 2 Flammability = 0 Reactivity = 0

## SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (470N-45C)

Manufacturer's Name: HILLYARD INDUSTRIES Product Name: ARSENAL HEAVY DUTY FLOOR CLEANER  
 Address: 302 North Fourth Street Date Prepared: August 23, 1996  
 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. 2303)

## SECTION II -- INGREDIENTS/IDENTITY INFORMATION

Components (Specific Chemical Identity: Common Name(s))	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Dipropylene glycol methyl ether <sup>(1)</sup>	34590-94-8	100 ppm	100 ppm	STEL-150 ppm	5-10
Water	7732-18-5	none	none	N/A	---
Nonyl phenol ethoxylate	9016-45-9	not established	not established	N/A	---
Potassium salt of fatty acid	69669-25-6	not established	not established	N/A	---
Potassium dodecyl benzene sulfonate	27177-77-1	not established	not established	N/A	---
Tetrasodium salt of EDTA	64-02-8	not established	not established	N/A	---

(1) Regulated by OSHA and the following states: FL, IL, LA, MA, NJ, PA, RI.  
 VOS = 0.5 lbs./gallon

## SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 206°F Specific Gravity (H<sub>2</sub>O = 1): 25°C = 1.04 & 39°C = 1.04  
 Vapor Pressure (mm Hg): 17.4 Percent Volatile by Volume (%): 73.3 %  
 Vapor Density (AIR = 1): 1.1 Evaporation Rate (ethyl ether = 1): slower than 1  
 Solubility in Water: complete Appearance and Odor: Clear, red liquid; fresh & clean odor  
 pH (concentrate) = 7.8

## SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: None to boiling (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: None known to manufacturer

## SECTION V -- PHYSICAL HAZARDS

Stability: Stable Conditions to Avoid: None known to manufacturer  
 Incompatibility (Materials to Avoid): None known to manufacturer.  
 Hazardous Decomposition Products or Byproducts: None known to manufacturer.  
 Hazardous Polymerization: Will not occur Conditions to Avoid: N/A

## SECTION VI -- HEALTH HAZARD DATA

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

## HEALTH HAZARDS (1. Acute and 2. Chronic)

1. According to Primary Skin Irritation Test (FHSA), product concentrate is a primary skin irritant. Eye Irritation Test (FHSA) = corrosive. Acute oral limit test showed the product was not oral toxic at 5g/kg. Since the product is corrosive it may be harmful if swallowed. Acute inhalation - 1 Hour Toxic Limit test - not toxic at nominal concentration of at least 11.1 mg/l. Inhalation of fine fog mist can cause irritation of mucous membranes. Fine fog mist application is not recommended. 2. None known to manufacturer.

**SECTION VI – HEALTH HAZARD DATA continued**

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 or equal to 0.1%.

**Signs and Symptoms of Exposure:** Direct eye contact can cause burns or severe irritation; prolonged skin contact may cause irritation. Ingestion may cause irritation to mouth, throat and stomach. May cause gastric tract disorder.

**Medical Conditions Generally Aggravated by Exposure:** Skin problems such as dermatitis may be aggravated by exposure to concentrated product.

**Emergency and First Aid Procedures:** In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. GET MEDICAL ATTENTION IMMEDIATELY. Wash clothing before reuse. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately .

**SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE**

**Steps To Be Taken In Case Material Is Released Or Spilled:** Small spills: Flush with water and pick-up with mop or wet vac. Large spills may be absorbed with floor dry material.

**Waste Disposal Method:** Dispose of in accordance with all federal, state and local requirements.

**Precautions To Be Taken In Handling And Storing:** Keep away from children. Container disposal: Triple rinse (or equivalent) then offer clean, dry container for recycling or reconditioning. Waste from normal use may be sewerred to a public-owned treatment works in compliance with applicable federal, state and local requirements.

**Other Precautions:** Avoid breathing of vapors or fine fog mist. Use only with adequate ventilation. Do not breathe fine fog mist. Wash thoroughly after handling. Keep container closed when not in use. Do not get in eyes, on skin or on clothing. Do not take internally. This product contains no reportable quantities of toxic chemicals subject to reporting requirements of Section 313 of SARA Title III Emergency Planning & Community Right to Know Act of 1986 and 40 CFR Part 372.

**SECTION VIII – CONTROL MEASURES:**

**Respiratory Protection (Specify Type):** None normally required. Ventilate to keep air below TLV on metasilicate.

**Ventilation:** At least 10 air exchanges per hour suggested in public areas with good ventilation.

**Local Exhaust =** Recommended **Mechanical (General) =** Recommended **Special =** N/A **Other =** N/A

**Protective Gloves:** If prolonged or repeated contact is possible, wear rubber or other impervious gloves.

**Eye Protection:** Splash goggles if risk of contact.

**Other Protective Clothing or Equipment:** Not usually necessary

**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 = not applicable; Corrosivity = not applicable; Reactivity = 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.

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**