

MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 1 Flammability = 2 Reactivity = 0

HMIS RATING: Health = 1 Flammability = 2 Reactivity = 0

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION (0922B)

Manufacturer's Name: HILLYARD INDUSTRIES

Product Name: ARSENAL CITRUS-SCRUB

Address: 302 North Fourth Street

Date Prepared: April 1, 2003

St. Joseph, MO 64501

Prepared by: Regulatory Affairs Department

Emergency Telephone (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:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
d-Limonene	5989-27-5	not established	not established	N.A.	5-10
Water	7732-18-5	none	none	N.A.	---
Octyl phenoxy polyethoxy ethanol	9036-19-5	not established	not established	N.A.	---
Dihexyl Sodium Sulfosuccinate	3006-15-3	not established	not established	N.A.	---

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 739 mm Hg 206°F

Specific Gravity (H₂O = 1): 25°C = 0.99 & 39°C = 0.99

Vapor Pressure (mm Hg.): 17.3

Percent Volatile by Volume (%): 88%

Vapor Density (AIR = 1): 1.0

Evaporation Rate (ethyl ether = 1): Slower than 1

Solubility in Water: appreciable

Appearance and Odor: Clear orange liquid, citrus odor

pH (concentrate) = 7-9

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: 120°F Corrected (T.C.C.)

Flammable Limits: LEL = 1% UEL = N.A.

Extinguishing Media: Alcohol foam, dry chemical, carbon dioxide

Special Fire Fighting Procedures: Water spray may be ineffective, but may be used to cool closed containers. Class II fire procedures; wear NIOSH approved respirator and full protective gear.

Unusual Fire and Explosion Hazards: None known to Hillyard Industries.

SECTION V -- PHYSICAL HAZARDS

Stability: Stable

Conditions to Avoid: Heat and flame.

Incompatibility (Materials to Avoid): Strong oxidizing material; cationics.

Hazardous Decomposition Products or Byproducts: As with any organic materials, combustion will produce carbon dioxide and probably carbon monoxide.

Hazardous Polymerization: Will not occur

Conditions to Avoid: None known to manufacturer

SECTION VI -- HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? no Ingestion? LD50 greater than 5 g/kg

HEALTH HAZARDS (1. Acute and 2. Chronic)

1. Eye or skin contact may produce irritation. Ingestion can cause nausea, vomiting and gastrointestinal irritation.

2. None known to Hillyard Industries.

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No

I.A.R.C. Monograms = 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: May cause irritation to skin and eyes.

Medical Conditions Generally Aggravated by Exposure: Open cuts and sores may be irritated by contact.

Emergency and First Aid Procedures: In case of contact with eyes or skin, flush with plenty of water for 15 minutes; remove contact lenses then flush eyes with water again. Remove contaminated clothing. Call a physician if irritation persists. Wash clothing before reuse.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Absorb large spills with floor dry material. Small spills should be flushed with water and pick up with mop.

Waste Disposal Method: Dispose of in accordance with state or local regulations.

EPA Hazardous Waste Classification: Ignitable Liquid. Incinerate in approved facility; do not incinerate closed container.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Since empty packages retain product residue, follow label warnings even after package is empty.

Other Precautions: Do not dispose of in storm drains or streams. 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): Not normally required with adequate ventilation.

Ventilation:

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

Protective Gloves: Impervious gloves with concentrate. **Eye Protection:** Splash goggles with concentrate.

Other Protective Clothing or Equipment: Handle as a combustible liquid.

Work / Hygienic Practices: Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling; wash clothing before reuse.

SECTION IX - TRANSPORTATION INFORMATION

APPLICABLE REGULATIONS: CFR = No; IMCO = Yes; IATA = Yes.

DOT SHIPPING DESCRIPTION ON BILL OF LADING:

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

Hazardous waste characteristics:

Ignitability = Yes; Corrosivity = not applicable; Reactivity = not applicable.

IMCO AND IATA SHIPPING DESCRIPTION ON BILL OF LADING:

Proper shipping name = FLAMMABLE LIQUID, N.O.S. (d-Limonene), 3.3, UN1993, PG III

Package Marking = FLAMMABLE LIQUID, N.O.S. (d-Limonene), UN1993

Package Label = Flammable Hazard Class = 3.3 Package Group = III

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