

MATERIAL SAFETY DATA SHEET**NFPA RATING:** Health = 2 Flammability = 2 Reactivity = 0**HMIS RATING:** Health = /2 Flammability = 2 Reactivity = 0**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION** (538N-75A)**Manufacturer's Name:** HILLYARD INDUSTRIES**Product Name:** CITRUS-SCRUB 90**Address:** 302 North Fourth Street**Date Prepared:** November 15, 2011 (version 2)

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	N/E	N/E	N/A	86-91
Water	7732-18-5	None	None	N/A	---
Linear Primary Alcohol Ethoxylate	68439-46-3	N/E	N/E	N/A	---

VOC (concentrate) = 90% or 784 gm/L.

N/A= Not Applicable N/E= Not Established

SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS*Boiling Point:** 739 mm Hg 300°F **Specific Gravity (H₂O = 1):** 25°C = 0.88 *Density= 7.33 lbs/gl.**Vapor Pressure (mm Hg.):** 1.2 **Percent Volatile by Volume (%):** 89.5%**Vapor Density (AIR = 1):** 4.7 **Evaporation Rate (ethyl ether = 1):** Slower than 1**Solubility in Water:** moderate **Appearance and Odor:** Clear to slightly translucent orange liquid, citrus odor**SECTION IV – FIRE AND EXPLOSION HAZARD DATA****Flash point:** 122°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, acidic agents, including clays.**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? Yes Ingestion? D50 greater than 5000 mg/kg**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. **Eye contact:** Causes eye irritation. Symptoms may include pain, redness, and swelling of the conjunctiva. **Skin Contact:** Can cause skin irritation. May cause allergic skin reaction. Symptoms may include redness, pain and swelling. **Inhalation:** Inhalation of fine spray mist may produce severe irritation of the respiratory tract, characterized by coughing, choking, or shortness of breath. **Ingestion:** May be irritating to mouth, throat, and gastrointestinal system. Aspiration hazard if swallowed. Can enter lungs and cause damage. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

2. None known to Hillyard Industries.

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 than or equal to 0.1%.

Signs and Symptoms of Exposure: Skin and eye irritant.**Medical Conditions Generally Aggravated by Exposure:** Open cuts and sores may be irritated by contact.**Emergency and First Aid Procedures:** **Eye contact:** Flush eyes with water for 15 minutes; lift eye lids and flush with water. If irritation persists seek medical attention. **Skin Contact:** Remove contaminated clothing. Flush with water. Wash with mild, non-abrasive soap. If irritation persists seek medical attention. Make sure to thoroughly clean contaminated shoes. **Inhalation:** If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. **Ingestion:** If swallowed, do not induce vomiting. Call physician immediately.**SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE****Steps To Be Taken In Case Material Is Released Or Spilled:** Absorb large spills; DO NOT use clay. Small spills should be flushed with water and picked 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. **USE ONLY WITH ADEQUATE VENTILATION.** Do not breathe vapors or spray mist. **Ensure fresh air entry during application and drying.** If you experience eye watering, headache, or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application. Follow respirator manufacturer's directions for respirator use.**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 such as neoprene or rubber. **Eye Protection:** Splash goggles or approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.**Other Protective Clothing or Equipment:** Handle as a combustible liquid. When splashing is a concern use protective clothing, eye wash, and safety shower.**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, UN1993, PG III

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

Package Label = Flammable Hazard Class = 3 Package Group = III

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