

MATERIAL SAFETY DATA SHEET

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

HMS RATING: Health = 0 Flammability = 0 Reactivity = 0

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION *(559N-46A)

Manufacturer's Name: HILLYARD INDUSTRIES

Product Name: LIQUID ENZYME II

Address: 302 North Fourth Street

Date Prepared: January 9, 2012 (version 3)

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.hillyard.com>

SECTION II -- INGREDIENTS/IDENTITY INFORMATION**Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Water	7732-18-5	none	none	N/A	---
Mixture of Bacterial Spores	68920-42-3	N/E	N/E	N/A	---

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

***SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS**

***Boiling Point:** 212°F

Specific Gravity (H₂O = 1): 25°C = 0.99 ***Density =** 8.32 lbs/gl

Vapor Pressure (mm Hg.): 17.5

***Percent Volatile by Weight (%):** >99%

Vapor Density (AIR = 1): 0.6

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

Solubility in Water: complete

***Appearance and Odor:** Opaque, white liquid; floral odor

***pH (concentrate) =** 7 – 8

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

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

Extinguishing Media: N/A

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:** Excessive hot or cold temperatures may kill microorganisms.

Incompatibility (Materials to Avoid): Strong acids, alkalis or disinfectants may kill these microorganisms.

Hazardous Decomposition Products or Byproducts: None known to manufacturer.

Hazardous Polymerization: Will not occur. **Conditions to Avoid:** None known to Hillyard.

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 not an irritant; prolonged exposure may produce slight irritation in sensitive individuals; Eye Irritation Test (FHSA) = not irritant. When tested as specified this product was not considered to be a UN/DOT corrosive at 4 hours.

2. No data is available at this time.

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 cont.

Signs and Symptoms of Exposure: Prolonged skin contact with concentrate can cause mild irritation. Ingestion may cause nausea.

Medical Conditions Generally Aggravated by Exposure: None known to manufacturer.

Emergency and First Aid Procedures: **Eyes/Skin:** In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. **Ingestion:** If ingested give person several glasses of water and induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious person.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Flush with water and pick up with mop.

Waste Disposal Method: This product may be disposed of in sanitary sewer or septic tank. Container disposal: Triple rinse or equivalent, then offer clean, dry container for recycling or reconditioning. Waste from normal use may be sewer to a public-owned treatment works in compliance with applicable federal, state and local requirements.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Store at temperatures between 40° - 115°F to maintain microorganism population in container.

Other Precautions: Keep out of reach of children. Avoid contact with skin. 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): Not required for normal use.

Ventilation: Not required for normal use.

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

Protective Gloves: Impervious gloves

Eye Protection: Splash goggles suggested

Other Protective Clothing or Equipment: Not 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: not listed

Ignitability = not applicable; **Corrosivity =** not applicable; **Reactivity =** not applicable

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