

MATERIAL SAFETY DATA SHEET

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

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

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION *(545N-42C)

Manufacturer's Name: HILLYARD INDUSTRIES

Product Name: TAKE DOWN (GREEN APPLE)

Address: 302 North Fourth Street
St. Joseph, MO 64501

Date Prepared: August 18, 2009 (version 2)

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	N/A	not established	not established	N/A	---
*Alcohols (C12-15 Ln. saturated) ethoxylate	68131-39-5	not established	not established	N/A	---
VOS of concentrate = 1.46%					

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

Boiling Point: 215°F	Specific Gravity (H₂O = 1): 25°C = 1.004	*Density 8.37 lb/gl
Vapor Pressure (mm Hg.): 17.7	*Percent Volatile by Volume (%): 94 – 96 %	
Vapor Density (AIR = 1): 0.6	Evaporation Rate (ethyl ether = 1): slower than 1	
Solubility in Water: complete	Appearance and odor: Pale-yellow, translucent liquid, green apple odor	
*pH (concentrate) = 6.25 – 7.25		

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: 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 to moderate irritation in sensitive individuals; Eye Irritation Test (FHSA) = Concentrated product was not considered to be an eye irritant; complete recovery was seen in all test subjects by 48 hours. When tested the concentrate was estimated to have acute oral LD₅₀ greater than 5 g./kg. When tested concentrate was not acutely toxic to the subjects following a 1 hour exposure to a concentration of 27.8 mg./L. (actual 18.5 mg./L.) thus LC₅₀ is greater than 27.4 mg./L. (actual 18.5 mg./L.). This is the maximum that could be generated with this test system.

2. None known to Hillyard.

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: Ingestion may cause nausea.

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

Emergency and First Aid Procedures: In case of contact, immediately flush eyes with plenty of cool water for at least 15 minutes. If irritation persists, get medical attention. In case of skin contact, wash with soap and water and apply a topical antiseptic agent. If ingested give person several glasses of water and CALL A PHYSICIAN, hospital emergency room or poison control center for how to induce vomiting. 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 prolonged contact with eyes or with open wounds or broken 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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