

**MATERIAL SAFETY DATA SHEET****NFPA RATING:** Health = 1 Flammability = 0 Reactivity = 0**HMIS RATING:** Health = /1 Flammability = 0 Reactivity = 0**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION (1160A)****Manufacturer's Name:** HILLYARD INDUSTRIES**Product Name:** ARSENAL GREEN SELECT  
DEGREASER CLEANER**Address:** 302 North Fourth Street  
St. Joseph, MO 64501**Date Prepared:** May 9, 2008**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:**

<b>Common Name(s)</b>	<b>CAS#</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>	<b>OTHER LIMITS RECOMMENDED</b>	<b>%</b>
Water	7732-18-5	none	none	N/A	---
Alkyl polyglucoside mixture	68515-73-1 & 110615-47-9	not established	not established	N/A	---
Sodium Citrate	68-04-2	not established	not established	N/A	

VOC Concentrate = 46.8 g/l.; VOC (concentrate) 0.5%; VOC (Min. dilution) 0.04%

**SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**

**Boiling Point:** 208°F      **Specific Gravity (H<sub>2</sub>O = 1):** 25°C = 1.05 & 39°C = 1.05  
**Vapor Pressure (mm Hg.):** 17.5      **Percent Volatile by Volume (%):** 88.97  
**Vapor Density (AIR = 1):** 0.6      **Evaporation Rate (ethyl ether = 1):** slower than 1  
**Solubility in Water:** complete      **Appearance and Odor:** Amber-brown liquid; citrus odor  
**pH (concentrate) =** 7.1

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA****Flash point:** None to 200°F (T.C.C.)      **Flammable Limits:** LEL = N/A      UEL = N/A**Extinguishing Media:** Water spray, Carbon Dioxide, Dry Chemical, Foam**Special Fire Fighting Procedures:** Wear a self-contained breathing apparatus, goggles and nitrile or rubber gloves with concentrate.**Unusual Fire and Explosion Hazards:** None known to manufacturer.**SECTION V – PHYSICAL HAZARDS****Stability:** Stable      **Conditions to Avoid:** None known to Hillyard**Incompatibility (Materials to Avoid):** Strong oxidizing materials, strong acids and strong bases.**Hazardous Decomposition Products or Byproducts:** As with any organic material, combustion will produce carbon dioxide and probably carbon monoxide.**Hazardous Polymerization:** Will not occur      **Conditions to Avoid:** None known**SECTION VI – HEALTH HAZARD DATA****Routes of entry:** Inhalation? no    Eye? yes    Skin? no    Ingestion? no**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. When tested per the Federal Hazardous Substance Act method 16 CFR 1500 concentrated product was not a skin irritant; per the FHSA method 16 CFR 1500 the concentrated product was an eye irritant. The concentrated product was not acutely toxic (oral) to rats at 5 gm/kg. per upper limit test. Acute inhalation = 1 hour upper limit test was not able to test because product foamed too much to dose by a mist.

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:** Overexposure may cause drowsiness, headache and uncoordination.

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

**Emergency and First Aid Procedures:** Eye and skin contact: Flush with plenty of water for 15 minutes; remove contact lenses and flush eyes again with water. If eye irritation persists get medical attention. If swallowed: Call a physician, hospital emergency room or poison control center immediately; induce vomiting.

**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: Flush with water and pick up with mop.

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

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use.

**Other Precautions:** Do not take internally.

**SECTION VIII – CONTROL MEASURES**

**Respiratory Protection (Specify Type):** None required.

**Ventilation:** Follow good engineering practices for public areas.

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

**Protective Gloves: N/A Eye Protection:** Goggles only where splashing of concentrate is a concern.

**Other Protective Clothing or Equipment:** N/A

**Work / Hygienic Practices:** Wash thoroughly after handling.

**SECTION IX – TRANSPORTATION INFORMATION**

**Applicable regulations:** CFR = No IMCO = No IATA = No.

**Proper shipping name for air, foreign water for highway:** Cleaning compound

**UN No.:** not applicable for highway **Limited Qty.:** not applicable **Hazard class:** not applicable for highway

**Labels required:** not required for highway **DOT Exception:** not applicable

**EPA Hazardous waste characteristics:**

**Ignitability =** Not applicable; **Corrosivity =** Not applicable; **Reactivity =** Not applicable.

**DISCLAIMER OF WARRANTIES**

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