

## MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 3 Flammability = 2 Reactivity = 0  
 HMIS RATING: Health = 3 Flammability = 2 Reactivity = 0

## SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION

(1125B)

**Manufacturer's Name:** HILLYARD INDUSTRIES

**Product Name:** ARSENAL STRIPPER

**Address:** 302 North Fourth Street

**Date Prepared:** April 28, 2008

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	%
2-Butyl cellosolve (2-Butoxyethanol) (1)*	111-76-2	50 ppm	20 ppm	N.A.	50-55
Benzyl Alcohol (2)	100-51-6	none	none	10 ppm from AIHA WEEL (1994).	27-32
Ethanolamine (3)	141-43-5	3 ppm	3 ppm	N.A.	14-19
Water	7732-18-5	none	none	N.A.	---

(1) Regulated by OSHA, FL, IL, LA, MA, NJ, PA, RI.

(2) Contains trace amounts of Benzaldehyde (CAS #100-52-7) possible Teratogene by NTP. It is present in the formula at less than 0.05%.

(3) Regulated by OSHA, CT, FL, IL, LA, MA, NJ, PA, RI.

\*This product contains the following chemicals subject to the reporting requirements of SARA Title III, Sec. 313, and 40 CFR Part 372: 2-Butoxyethanol.

VOC (Concentrate) = 82%; VOC (dilution 1:10) = 7.45%

## SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS

<b>Boiling Point:</b> 250°F	<b>Specific Gravity (H<sub>2</sub>O = 1):</b> 25°C = 0.96 & 39°C = 0.96
<b>Vapor Pressure (mm Hg.):</b> 0.49	<b>Percent Volatile by Volume (%):</b> 98.8%
<b>Vapor Density (AIR = 1):</b> 3.6	<b>Evaporation Rate (ethyl ether = 1):</b> slower than 1
<b>Solubility in Water:</b> Appreciable	<b>Appearance and Odor:</b> Clear, colorless liquid; solvent odor
<b>pH (concentrate) =</b> 11.6	

## SECTION IV – FIRE AND EXPLOSION HAZARD DATA

**Flash point:** 162°F (Tag Closed Cup) **Flammable Limits:** LEL = Not established UEL = Not established

**Extinguishing Media:** Carbon dioxide, dry chemical or foam (water spray to cool closed containers)

**Special Fire Fighting Procedures:** Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

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

## SECTION V – PHYSICAL HAZARDS

**Stability:** Stable

**Conditions to Avoid:** Heat, sparks and open flame

**Incompatibility (Materials to Avoid):** Keep away from strong oxidizers such as permanganate or strong oxides.

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

**Hazardous Polymerization:** will not occur

**Conditions to Avoid:** N/A

## SECTION VI – HEALTH HAZARD DATA

**Routes of entry:** Inhalation? Yes Skin? Yes Ingestion? Yes

**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Corrosive to all body tissue with which it comes in contact. Chronic local effects may consist of multiple areas of superficial destruction of the skin or dermatitis. Estimated LD50: less than 1.75 g/kg. Acute Inhalation 1 hour exposure study showed no mortality of 1:3 dilution at 11.1 mg/L. 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**

**Signs and Symptoms of Exposure:** Butyl cellosolve is readily absorbed through the skin in toxic amounts. Inhalation of high concentrations of vapors results in respiratory and eye irritation, narcosis, headache, nausea, dizziness, hematuria and damage to liver and kidneys.

**Medical Conditions Generally Aggravated by Exposure:** Repeated overexposure may result in damage to the blood.

**Emergency and First Aid Procedures:** Inhalation: If the victim is not breathing, perform mouth-to-mouth resuscitation with proper PPE. Remove person to fresh air. If breathing difficulty persists or occurs later, call physician. Skin and eye contact: Check for and remove any contact lenses. Immediately flush with plenty of water for 15 minutes. Get prompt medical attention. Remove and wash all contaminated clothing before reuse. Ingestion: DO NOT induce vomiting. Immediately give large amounts of water and CALL A PHYSICIAN, hospital emergency room or poison control center.

**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 (see disposal below). Small spills: Flush with water and pick up with mop or wet vacuum.

**Waste Disposal Method:** Dispose of in accordance with state or local regulations. Do not dispose of in storm drains or streams; monoethanolamine is toxic to fish.

**Precautions To Be Taken In Handling And Storing:** Keep container closed when not in use. Since empty packages retain product residue, follow label warning even after package is empty. Do not store above 120°F. Spray mist may produce respiratory irritation or damage and increase susceptibility to respiratory illness. USE WITH ADEQUATE VENTILATION. Avoid breathing vapors or spray mist. Open windows and doors, use exhaust fans or other means to insure fresh air entry during application and drying. Refer to OSHA Standard 29 CFR 1910.94 for technical guidelines on keeping air contamination below acceptable exposure limits. Do not get on skin, in eyes or on clothing.

**SECTION VIII -- CONTROL MEASURES**

**Respiratory Protection (Specify Type):** Wear appropriate, properly fitted respirator (NIOSH or MSHA approved unless air monitoring demonstrates vapor or mist levels are below applicable limits.

**Ventilation:** at least 10 air changes per hour recommended

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

**Protective Gloves:** impervious rubber gloves **Eye Protection:** chemical safety goggles

**Other Protective Clothing or Equipment:** protective clothing such as uniforms, coveralls

**Work / Hygienic Practices:** Wash contaminated clothing before reuse (including shoes).

**SECTION IX -- TRANSPORTATION INFORMATION**

**DOT SHIPPING DESCRIPTION ON BILL OF LADING:**

(1/2 gallon, 1, 5 and 55 gallon packages) = Compound, cleaning, liquid, (Monoethanolamine), 8, NA 1760, PG II

Package Marking = Compound, cleaning liquid (Monoethanolamine), NA 1760

Package Label = Corrosive Hazard Class = 8 Package Group = II

**EPA Hazardous waste number/code:** not listed

**Hazardous waste characteristics:** Ignitability = not applicable; Corrosivity = not applicable; Reactivity = not applicable

**DISCLAIMER OF WARRANTIES**

**NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.**

The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.

**THE BUYER OR USER ASSUMES ALL RISKS ASSOCIATED WITH THE USE, MISUSE OR DISPOSAL OF THIS PRODUCT. THE BUYER OR USER IS RESPONSIBLE TO COMPLY WITH ALL FEDERAL, STATE OR LOCAL REGULATIONS CONCERNING THE USE, MISUSE OR DISPOSAL OF THESE PRODUCTS.**

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Vapor Pressure (mm Hg.):	0.49	Percent Volatile by Volume (%):	98.8%		
Vapor Density (AIR = 1):	3.6	Evaporation Rate (ethyl ether = 1):	slower than 1		
Solubility in Water:	Appreciable	Appearance and Odor:	Clear, colorless liquid; solvent odor		
pH (concentrate) =	11.6				

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