

MATERIAL SAFETY DATA SHEET

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

SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION

(438N-97A)

Manufacturer's Name: HILLYARD INDUSTRIES
Address: 302 North Fourth Street
 St. Joseph, MO 64501

Product Name: C2 KA DEGREASER**Date Prepared:** August 18, 2005**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	%
Butyl cellosolve (2-Butoxyethanol) * (1)	111-76-2	25 ppm	25 ppm	N/A	2-4
Sodium metasilicate (2)	6834-92-0	not est.	not est.	2 mg/M ³	2-4
Water	7732-18-5	not est.	not est.	N/A	---
Sodium carbonate	497-19-8	not est.	not est.	N/A	---
Tetrasodium salt of EDTA	64-02-8	not est.	not est.	N/A	---
Alkyl imino acid, sodium salt	64972-19-6	not est.	not est.	N/A	---
Polyoxyethylene thioether	9004-83-5	not est.	not est.	N/A	---

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

(1) Regulated by OSHA and the following states: FL, IL, LA, MA, NJ, PA, RI.

(2) Exposure may be elevated for Sodium hydroxide per OSHA, PEL = 2 mg/M³ or TLV = 2 mg/M³.

VOC = 390 gm./l.; VOS = 0.26 lbs./gal.; VOS when diluted 1:1 = 0.01%

SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS**Boiling Point:** corrected 209°F **Specific Gravity (H₂O = 1):** 25°C = 1.09 & 39°C = 1.09**Vapor Pressure (mm Hg.):** 17.5 **Percent Volatile by Volume (%):** 77**Vapor Density (AIR = 1):** 0.7 **Evaporation Rate (ethyl ether = 1):** slower than 1**Solubility in Water :** appreciable **Appearance and Odor:** clear red liquid; butyl cellosolve odor
pH (concentrate) = 13**SECTION IV – FIRE AND EXPLOSION HAZARD DATA****Flash point:** None (T.C.C.) **Flammable Limits:** LEL = N/A UEL = N/A**Extinguishing Media:** Foam, carbon dioxide, dry chemical, water spray.**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 manufacturer**SECTION V – PHYSICAL HAZARDS****Stability:** Stable **Conditions to Avoid:** N/A**Incompatibility (Materials to Avoid):** Do not mix with strong acids.**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. When tested per the Federal Hazardous Substance Act the concentrated product was not considered to be a primary skin irritant. The concentrated sample did induce severe skin irritation in all six test subjects but complete recovery was found in two animals in day 21, and significant improvement in the other four. Severe eye irritation is produced with contact to the concentrate. The concentrated product was not shown to be acutely toxic when administered at 5 gm./kg. The concentrated product was not shown to be acutely toxic when administered in an acute inhalation at nominal concentration of 46 mg./L. (Actual concentration of 46.1 mg./L. 2. None known to Hillyard.

HEALTH HAZARDS (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: Butyl cellosolve is readily absorbed through the skin in toxic amounts. Inhalation of high concentration of vapors results in respiratory and eye irritation, narcosis, hematuria and damages liver and kidneys.

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

Emergency and First Aid Procedures: Inhalation: Remove person to fresh air. If breathing difficulty persists or occurs later, call a physician. In case of contact immediately flush eyes or skin with plenty of water for 15 minutes while removing contaminated clothes and shoes. Get prompt medical attention. Wash clothing before reuse and thoroughly clean contaminated shoes. If swallowed, 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. EPA Hazardous Waste Classification:

Corrosive (pH = 13 on concentrate). Do not dispose of in storm drains or streams.

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. Spray mist may produce respiratory irritation or damage and increase susceptibility to respiratory illness.

Other Precautions: 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 take internally. Do not get in eyes, on skin, or on clothing.

SECTION VIII – CONTROL MEASURES

Respiratory Protection (Specify Type): Ventilate to keep air below TLV. A NIOSH approved respirator for organic vapor should be worn if needed to keep level below TLV.

Ventilation:

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: Impervious boots and aprons where splashing of concentrate is a problem; otherwise, use uniforms or coveralls.

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:

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

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