

H81722; H82806

#817

MATERIAL SAFETY DATA SHEET

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

SECTION I - IDENTITY AND MANUFACTURER'S INFORMATION

(1159A)

Manufacturer's Name: HILLYARD INDUSTRIES

Product Name: ARSENAL DEGREASER

Address: 302 North Fourth Street

Date Prepared: March 14, 2007

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)

Sodium metasilicate (1)

CAS#
6834-92-0OSHA PEL
not establishedACGIH TLV
not establishedOTHER LIMITS
RECOMMENDED

%

Water

7732-18-5

none

none

2 mg/M³

1-2%

Tetrasodium salt of Ethylenediamine

64-02-8

not established

not established

N/A

Tetraacetic acid

Complex Blend of Surfactants

Unknown

not established

not established

N/A

to Hillyard

Lauramine oxide

1643-20-5

not established

not established

N/A

Cationic Surfactant

68444-16-6

not established

not established

N/A

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

VOC (concentrate) = 0.50%; Diluted 1:40 VOC=0.01%

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 202°F

Specific Gravity (H₂O = 1): 25°C = 1.04 & 39°C = 1.04

Vapor Pressure (mm Hg.): 17.5

Percent Volatile by Volume (%): 90%

Vapor Density (AIR = 1): 0.6

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

Solubility in Water: complete

Appearance and Odor: clear, amber liquid, non-objectionable odor

pH (concentrate) = 12.9

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash point: none to boiling (T.C.C.)

Flammable Limits: LEL = N/A UEL = N/A

Extinguishing Media: Water, carbon dioxide, dry chemical or foam

Special Fire Fighting Procedures: N/A

Unusual Fire and Explosion Hazards: N/A

SECTION V - PHYSICAL HAZARDS

Stability: Stable

Conditions to Avoid: Do not mix with anionic cleaners.

Incompatibility (Materials to Avoid): Oxidizing materials

Hazardous Decomposition Products or Byproducts: Carbon dioxide, carbon monoxide, ammonia, nitrous oxide (trace)

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. Concentrate not a primary skin irritant when tested per the Federal Hazardous Substance Act Procedure. Concentrate was a primary eye irritant when tested per the Federal Hazardous Substance Act Procedure. Prolonged overexposure to the eyes may produce be corrosive to eyes. Not toxic at 5 g/kg. on oral toxicity test. 2. None known to Hillyard Industries.

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%.