



COLUMBUS CHEMICAL INDUSTRIES INC.

P.O. BOX 8
 COLUMBUS, WISCONSIN 53925-0008
 (920) 623-2140
 FAX (920) 623-2577

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements

U.S. Department of Labor

Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

IDENTITY (as Used on Label and List)

Universal Indicator Solution

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

Section I

Manufacturers /Distributor Address Number Street City State and Zip Code

Columbus Chemical Industries, Inc.

N4335 Temkin Road

Columbus, WI 53925

Emergency Telephone Number

CHEMTREC 1-800-424-9300

Telephone Number for Information

(920) 623-2140

Date Prepared

12-15-2004

Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity, Common Name(s))	CAS #	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Ethyl Alcohol	64-17-5	1000 ppm TWA	1000 ppm TWA	Not Available	45-50%
Methyl Red, Sodium Salt	845-10-3	Not Available	Not Available	Not Available	<1%
Bromothymol Blue, powder,	34722-90-2	Not Available	Not Available	Not Available	<1%
Phenolphthalein	77-09-8	Not Available	Not Available	Not Available	<1%

Section III - Physical/Chemical Characteristics

Boiling Point	Not Available	Specific Gravity (H ₂ O = 1)	0.9176
Vapor Pressure (mm Hg)	Not Available	Melting Point	Not Available
Vapor Density (AIR = 1)	Not Available	Evaporation Rate (Butyl Acetate = 1)	Not Available

Solubility in Water

Complete

Appearance and Odor

Red, translucent liquid

Section IV Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Not flammable		Not Applicable	Not Applicable

Extinguishing Media

Carbon dioxide, dry chemical

Special Fire Fighting Procedures

In the event of a fire, wear full protective clothing and NIOSH/MSHA-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards

Emits toxic fumes under fire conditions.

Section V Reactivity Data

Stability	Unstable		Conditions to Avoid	None known
	Stable	X		

Incompatibility Materials to Avoid

Unknown to Columbus Chemical Industries, Inc.

Hazardous Decomposition or Byproducts

When heated to decomposition, emits toxic fumes of bromides, SO, CO, CO2 and nitrogen oxides.

Hazardous Polymerization**Conditions to Avoid**

	May Occur		Not Available
	Will Not Occur	X	

Section VI Health Hazard Data**Routes of Entry****Inhalation ?****Skin ?****Ingestion ?**

	Yes		Yes
--	-----	--	-----

Health Hazards (Acute and Chronic)

SKIN: May cause irritation. EYE: May cause irritation.

INHALATION: May cause irritation. INGESTION: May be harmful if ingested

Carcinogenicity**NTP****IARC Monographs****OSHA REGULATED?**

	Not Listed	Not Listed	Not Listed
--	------------	------------	------------

Signs and Symptoms of Exposure.

Contact with skin or eyes may cause irritation, itching, redness, burning. Inhalation or ingestion may cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, diarrhea and vomiting.

Medical Conditions Generally Aggravated by Exposure

Unknown to Columbus Chemicals, Inc.

Emergency and First Aid Procedures

INGESTION: Wash out mouth with water provided person is conscious. Call a physician immediately. INHALATION: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. SKIN: Flush with water for at least 20 minutes. Remove contaminated clothing; call a physician. EYES: Flush with large amounts of water for at least 20 minutes, lifting lower and upper eyelids.

Section VII Precautions for Safe Handling and Use**Steps to be Taken in Case Material is Released or Spilled**

Evacuate area. Wear chemical-resistant goggles, rubber boots and full protective clothing. Contain spill with dikes, sand or noncombustible absorbent material.

Pick up, place in a bag and hold for disposal. Ventilate area and wash spill site after pickup complete.

Waste Disposal Method To comply with all applicable Federal, State, and Local regulations.

Precautions to be Taken in Handling and Storing

Keep in tightly closed plainly-labelled containers, stored in a cool, dry, ventilated area. Protect against physical damage. Maintain adequate ventilation.

Other Precautions Containers, even when empty, will retain residue and vapors which can be hazardous.

Always obey hazard warnings and handle empty containers as if they were full.

Section VII Control Measures

Respiratory Protection (Specify Type) NIOSH approved mask at high concentrations.

Ventilation	Local Exhaust	Recommended.	Special	Eye-wash station nearby.
	Mechanical (General)	Acceptable	Other	Safety shower nearby.

Protective Gloves Appropriate chemical resistant gloves

Eye Protection Safety goggles

Other Protective Clothing or Equipment Lab coat or apron

Work /Hygienic Practices Wash thoroughly after handling.