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IMPORTANT

MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL
 OSHA requires that this form be kept on file.

Product No. KM 772 M

Product Name UNIVERSAL INDICATOR

SOLUTION

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC 800-424-9300
 HAZARD RATING

4-EXTREME
 3-SEVERE
 2-MODERATE
 1-SLIGHT
 0-MINIMAL

Health Hazard	3
Flammability	3
Reactivity	0

SECTION I NAME

Chemical Synonyms	None
Formula	See Section II
C.A.S. No.	See Section II

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	CAS#	%	P.E.L.	TLV Units
Methyl Red	493-52-7	<0.01%	None Established	None Established
Bromothymol Blue	76-59-5	<0.01%	None Established	None Established
Phenolphthalein	77-09-8	<0.01%	None Established	None Established
Ethyl Alcohol, denatured	64-17-5	47+%	1000 ppm	1000 ppm
Water (nonhazardous)	7732-18-5	Bal.	None Established	None Established

* chemical subject to the reporting requirements of SARA Title III.

SECTION III PHYSICAL DATA

Melting Point (°F)	N/A	Specific Gravity (H ₂ O=1)	<1
Boiling Point (°F)	N/A	Percent Volatile by Volume (%)	+99%
Vapor Pressure (mm Hg)	N/A	Evaporation Rate (----- = 1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	Complete		
Appearance & Odor	Orange colored solution.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	51°F closed cup (95% Ethyl Alcohol)	Flammable Limits in Air % by Volume	Lower	Upper
			3.3	19.0
Extinguisher Media	Carbon dioxide, dry chemical, alcohol-type foam, water spray or universal-type foam.			

Special Firefighting Procedures

Wear self-contained breathing apparatus and full protective clothing. Use water spray to cool fire-exposed containers. Avoid using a solid stream of water.

Unusual Fire and Explosion Hazards

None known.

D.O.T. Flammable liquids, n.o.s. (contains Ethanol and Methyl isobutyl ketone), 3, UN1993, PGII

Approved by the U.S. Department of Labor "essentially similar" to form OSHA-20

SECTION V HEALTH HAZARD DATA

Threshold Limit Value

1000 ppm for Ethyl Alcohol, denatured.

Effects of Overexposure

Irritation to skin and eyes. Irritation if inhaled. **Ingestion:** nausea, vomiting, diarrhea, drowsiness, dizziness, staggering gait, weakness. **Inhalation:** Weakness, headache, narcosis, dizziness, vomiting, nausea, drowsiness, loss of appetite, unconsciousness. Methyl red has been found to be a possible tumorigenic agent but is less than 0.1% in content.

Emergency and First Aid Procedures

Denatured Ethyl Alcohol cannot be made non-poisonous! Call a physician. **Eye & Skin:** Immediately flush with water at least 15 minutes. **Inhalation:** Remove to fresh air. **Ingestion:** Drink water and induce vomiting.

SECTION VI REACTIVITY DATA

Stability	Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	Conditions to Avoid	Heat, ignition sources, fire.
Incompatibility (Materials to Avoid)			Oxidizing agents.
Hazardous Decomposition Products			Carbon monoxide, carbon dioxide, nitrogen oxide.
Hazardous Polymerization	May Occur <input type="checkbox"/> Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid	N/A

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled

Absorb small spill with noncombustible material and containerize for proper disposal.

Waste Disposal Method

Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Incineration in accordance with all federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	NIOSH-approved respirator in areas of high concentrations.		
Ventilation	Local Exhaust	X	Special
	Mechanical (General)	-----	Other
Protective Gloves	Rubber gloves	Eye Protection	Safety goggles
Other Protective Equipment	Wear protective clothing to prevent contact. Eye bath and safety shower available.		

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.

Avoid breathing vapor and any contact. Keep away from heat, sparks and flame. Do not take internally.

Other Precautions

Read label on container before using. Do not wear contact lenses when working with chemicals.

Solids may appear if solution is exposed to temperatures below 25°C. Place bottle in water bath at 50°C to dissolve solids before using.

Approved by	Steven C. Quandt	Effective Date	4/23/2002	For laboratory use only. Not for drug, food or household use. Keep out of reach of children.
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