MATERIAL SAFETY DATA SHEET

Issuing Date 5/3/2012 **Revision Number** no data available

1. PRODUCT AND COMPANY IDENTIFICATION

Product name **WIDE RANGE INDICATOR**

Product Code(s) 2218

Synonyms none

Recommended Use Test kit reagent. Industrial (not for food or food contact use). Laboratory chemicals.

Company

LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620
USA

Emergency telephone number

24 Hour Emergency Number (CHEM-TEL):
USA, Canada, Puerto Rico 1-800-255-3924
Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

POISON DANGER

EMERGENCY OVERVIEW

FLAMMABLE LIQUID AND VAPOR
Harmful by inhalation, in contact with skin and if swallowed
MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED
Affects central nervous system
May cause skin and eye irritation

Appearance dark green **Physical state** liquid **Odor** Alcohol

Potential health effects

Principle Routes of Exposure Skin Contact, Ingestion, and, Inhalation.

Acute toxicity

Eyes May cause irritation.

Skin Irritating to skin. Prolonged skin contact may defat the skin and produce dermatitis.

Inhalation May cause irritation of respiratory tract. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

Ingestion May cause drowsiness and dizziness. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. May cause central nervous system depression.

Chronic effects Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Prolonged skin contact may cause skin irritation and/or dermatitis.

Environmental hazard HARMFUL TO AQUATIC ORGANISMS.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
Methyl red	493-52-7	<0.05
Thymol blue	76-61-9	<0.05
Phenolphthalein	77-09-8	<0.05
Bromothymol blue	76-59-5	<0.05
Potassium hydroxide	1310-58-3	<0.1
2,4-Dinitrophenol	51-28-5	0.05
Methyl alcohol	67-56-1	2
Ethyl alcohol	64-17-5	52
Water	7732-18-5	to 100%

WARNING! This product contains chemcials know to the State of California to cause cancer and birth defects or other reproductive harm.

4. FIRST AID MEASURES

General advice Do not get in eyes, on skin, or on clothing. Consult a physician.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Consult a physician.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel. Call a physician immediately.

Ingestion Drink 1 or 2 glasses of water. Do not induce vomiting without medical advice. Call a physician immediately.

Protection of First-aiders Use personal protective equipment. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. FIRE-FIGHTING MEASURES

Flammable properties FLAMMABLE.

Flash point ca. 23°C (70°F) CC

Suitable extinguishing media Water spray, dry chemical, carbon dioxide (CO_2), or foam.

NFPA	**Health hazard** 2	**flammability** 3	**Stability** 0	**Physical and Chemical Hazards** -
HMIS	**Health hazard** 2	**flammability** 3	**Stability** 0	

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Refer to Section 8. Ensure adequate ventilation. Remove all sources of ignition.

Methods for containment Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Dispose according to federal, state, and local regulations.

Methods for cleaning up After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling Handle in accordance with good industrial hygiene and safety practice. Prevent contact with skin, eyes, and clothing. Do not ingest. Do not eat, drink, or smoke when using this product.

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from heat and sources of ignition. Do not store near combustible materials. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methyl red 493-52-7	None known	None known	None known
Thymol blue 76-61-9	None known	None known	None known
Phenolphthalein 77-09-8	None known	None known	None known
Bromothymol blue 76-59-5	None known	None known	None known
Potassium hydroxide 1310-58-3	None known	None known	Ceiling: 2 mg/m³
2,4-Dinitrophenol 51-28-5	None known	None known	None known
Methyl alcohol 67-56-1	250	TWA: 200 ppm TWA: 260 mg/m³	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm STEL: 325 mg/m³
Ethyl alcohol 64-17-5	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m³
Water 7732-18-5	None known	None known	None known

Personal protective equipment

Eye/face Protection Safety glasses with side-shields.

Skin and body protection Wear protective gloves/clothing. Nitrile rubber. Gloves & Lab Coat.

Respiratory protection Use only with adequate ventilation.

Hygiene Measures Do not eat, drink or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance dark green

Physical state liquid

Flash point ca. 23°C (70°F) CC

Odor Alcohol

pH Not Applicable

Boiling Point/Range 78.5°C (173.3°F) for SDA (3A) Ethyl Alcohol

Explosion Limits

Upper 19% Ethanol

Lower 3.3% Ethanol

Vapor pressure 48 mmHg @ 20 °C for SDA (3A) Ethyl Alcohol

Vapor density 1.6 @ 20°C (Air=1) for SDA (3A) Ethyl Alcohol

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions of use and storage.

Incompatible Products Nitric acid. Strong oxidizing agents.

Conditions to avoid Heat, flames and sparks.

Hazardous decomposition products Carbon oxides (COx).

Hazardous polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl red	None known	None known	None known
Thymol blue	None known	None known	None known
Phenolphthalein	None known	None known	None known
Bromothymol blue	None known	None known	None known
Potassium hydroxide	214 mg/kg (Rat)	None known	85 mg/L Gambusia affinis 24 hr
2,4-Dinitrophenol	30 mg/kg (Rat)	None known	None known
Methyl alcohol	5628 mg/kg (Rat)	15800 mg/kg (Rabbit)	64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h
Ethyl alcohol	1501 mg/kg (Rat)	None known	124.7 mg/L (Rat) 4 h
Water	90 mL/kg (Rat)	None known	None known

Chronic toxicity

Chronic toxicity Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage. Prolonged skin contact may cause skin irritation and/or dermatitis.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Methyl red	None known	None known	None known	None known
Thymol blue	None known	None known	None known	None known
Phenolphthalein	None known	Group 2B	Reasonably Anticipated	X
Bromothymol blue	None known	None known	None known	None known
Potassium hydroxide	None known	None known	None known	None known
2,4-Dinitrophenol	None known	None known	None known	None known
Methyl alcohol	None known	None known	None known	None known
Ethyl alcohol	None known	None known	Known	None known
Water	None known	None known	None known	None known

IARC: (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
OSHA: (Occupational Safety & Health Administration)
X - Present

Endocrine Disruptor Information .

Chemical name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine disrupting potential
Methyl red	None known	None known	None known
Thymol blue	None known	None known	None known
Phenolphthalein	Group III Chemical	None known	None known
Bromothymol blue	None known	None known	None known
Potassium hydroxide	None known	None known	None known
2,4-Dinitrophenol	None known	None known	None known

Methyl alcohol	None known	None known	None known
Ethyl alcohol	None known	None known	None known
Water	None known	None known	None known

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Methyl red	None known	None known	None known	None known
Thymol blue	None known	None known	None known	None known
Phenolphthalein	None known	None known	None known	None known
Bromothymol blue	None known	None known	None known	None known
Potassium hydroxide	None known	None known	None known	None known
2,4-Dinitrophenol	None known	LC50= 6.58 mg/L Pimephales promelas 96 h	None known	None known
Methyl alcohol	None known	LC50 13500 - 17600 mg/L Lepomis macrochirus 96 h LC50 18 - 20 mL/L Oncorhynchus mykiss 96 h LC50 19500 - 20700 mg/L Oncorhynchus mykiss 96 h LC50= 28200 mg/L Pimephales promelas 96 h LC50> 100 mg/L Pimephales promelas 96 h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	None known
Ethyl alcohol	None known	LC50= 12900 mg/L Oncorhynchus mykiss 96 h LC50= 14.2 mg/L Pimephales promelas 96 h	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	EC50 = 10800 mg/L 24 h EC50 = 9268 mg/L 48 h
Water	None known	None known	None known	None known

Persistence and degradability Ethanol: When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material may evaporate to a moderate extent. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to be readily removed from the atmosphere by dry and wet deposition. When released into the air, this material is expected to have a half-life between 1 and 10 days.

Chemical name	Log Pow
Methyl red	None known
Thymol blue	None known
Phenolphthalein	None known
Bromothymol blue	None known
Potassium hydroxide	= 0.65 = 0.83
2,4-Dinitrophenol	= 1.54
Methyl alcohol	= -0.77
Ethyl alcohol	= -0.32
Water	None known

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method Dispose of in accordance with local regulations.

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Methyl red - 493-52-7	None known	None known	None known	None known
Thymol blue - 76-61-9	None known	None known	None known	None known
Phenolphthalein - 77-09-8	None known	None known	None known	None known
Bromothymol blue - 76-59-5	None known	None known	None known	None known

Potassium hydroxide - 1310-58-3	None known	None known	None known	None known
2,4-Dinitrophenol - 51-28-5	None known	P048	None known	None known
Methyl alcohol - 67-56-1	None known	None known	None known	None known
Ethyl alcohol - 64-17-5	None known	None known	None known	None known
Water - 7732-18-5	None known	None known	None known	None known

.

Chemical name	California Hazardous Waste Status
Ethyl alcohol	Toxic; Ignitable

14. TRANSPORT INFORMATION

DOT

Proper shipping name ETHANOL SOLUTION (Ethyl Alcohol Solution)
Hazard Class 3
UN-No 1170
Packing group II

IATA

UN-No 1170
Proper shipping name ETHANOL SOLUTION (Ethyl Alcohol Solution)
Hazard Class 3
Packing group II

IMDG/IMO

Proper shipping name ETHANOL SOLUTION (Ethyl Alcohol Solution)
Hazard Class 3
UN-No 1170
Packing group II

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Methyl red 493-52-7 (<0.05)	Present	X	X	5-243	X	KE-06693	X	X
Thymol blue 76-61-9 (<0.05)	Present	X	X	ENCS	X	KECL	X	X
Phenolphthalein 77-09-8 (<0.05)	Present	X	X	9-1152	X	KE-03234	X	X
Bromothymol blue 76-59-5 (<0.05)	Present	X	X	ENCS	X	KE-02744	X	X
Potassium hydroxide 1310-58-3 (<0.1)	Present	X	X	1-369	X	KE-29139	X	X
2,4-Dinitrophenol 51-28-5 (0.05)	Present	X	X	3-797	X	KE-11946	X	X
Methyl alcohol 67-56-1 (2)	Present	X	X	(2)-201	X	KECL	X	X
Ethyl alcohol 64-17-5 (52)	Present	X	X	2-202	X	KE-13217	X	X
Water 7732-18-5 (to 100%)	Present	X	X	ENCS	X	KE-35400	X	X

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Methyl red	493-52-7	<0.05	None known
Thymol blue	76-61-9	<0.05	None known
Phenolphthalein	77-09-8	<0.05	None known
Bromothymol blue	76-59-5	<0.05	None known
Potassium hydroxide	1310-58-3	<0.1	None known
2,4-Dinitrophenol	51-28-5	0.05	1.0
Methyl alcohol	67-56-1	2	1.0
Ethyl alcohol	64-17-5	52	None known
Water	7732-18-5	to 100%	None known

SARA 311/312 Hazard Categories

Acute health hazard	yes
Chronic Health Hazard	yes
Fire hazard	yes
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Methyl red 493-52-7 (<0.05)	None known	None known	None known	None known
Thymol blue 76-61-9 (<0.05)	None known	None known	None known	None known
Phenolphthalein 77-09-8 (<0.05)	None known	None known	None known	None known
Bromothymol blue 76-59-5 (<0.05)	None known	None known	None known	None known
Potassium hydroxide 1310-58-3 (<0.1)	1000 lb	None known	None known	X
2,4-Dinitrophenol 51-28-5 (0.05)	None known	X	X	X
Methyl alcohol 67-56-1 (2)	None known	None known	None known	None known
Ethyl alcohol 64-17-5 (52)	None known	None known	None known	None known
Water 7732-18-5 (to 100%)	None known	None known	None known	None known

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:.

Chemical name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Methyl red	493-52-7	<0.05	None known	None known	None known	None known
Thymol blue	76-61-9	<0.05	None known	None known	None known	None known
Phenolphthalein	77-09-8	<0.05	None known	Group III	None known	None known
Bromothymol blue	76-59-5	<0.05	None known	None known	None known	None known
Potassium hydroxide	1310-58-3	<0.1	None known	None known	None known	None known
2,4-Dinitrophenol	51-28-5	0.05	Present	Group III	None known	None known
Methyl alcohol	67-56-1	2	Present	Group IV	None known	None known
Ethyl alcohol	64-17-5	52	None known	None known	None known	None known
Water	7732-18-5	to 100%	None known	None known	None known	None known

CERCLA

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ
Methyl red	None known	None known
Thymol blue	None known	None known
Phenolphthalein	None known	None known
Bromothymol blue	None known	None known
Potassium hydroxide	1000 lb	None known
2,4-Dinitrophenol	10 lb	None known
Methyl alcohol	5000 lb	None known
Ethyl alcohol	None known	None known
Water	None known	None known

U.S. State Regulations

California Proposition 65

WARNING! This product contains a chemical know to the State of California to cause cancer and birth defects or other reproductive harm (Ethyl alcohol is only considered a Proposition 65 cancer and developmental hazard when it is ingested as an alcoholic beverage)

Chemical name	CAS-No	California Prop. 65
Methyl red	493-52-7	None known
Thymol blue	76-61-9	None known
Phenolphthalein	77-09-8	Carcinogen
Bromothymol blue	76-59-5	None known
Potassium hydroxide	1310-58-3	None known
2,4-Dinitrophenol	51-28-5	None known
Methyl alcohol	67-56-1	Developmental
Ethyl alcohol	64-17-5	Carcinogen
Water	7732-18-5	None known

U.S. State Right-to-Know Regulations

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methyl red	None known	None known	None known	None known	None known
Thymol blue	None known	None known	None known	None known	None known
Phenolphthalein	None known	None known	None known	None known	None known
Bromothymol blue	None known	None known	None known	None known	None known
Potassium hydroxide	X	X	X	None known	X
2,4-Dinitrophenol	X	X	X	X	None known
Methyl alcohol	X	X	X	X	X
Ethyl alcohol	X	X	X	None known	X
Water	None known	None known	None known	None known	None known

International Regulations

Mexico - Grade

Chemical name	Carcinogen Status	Exposure Limits
Methyl red	None known	None known
Thymol blue	None known	None known
Phenolphthalein	None known	None known
Bromothymol blue	None known	None known
Potassium hydroxide	None known	None known
2,4-Dinitrophenol	None known	None known
Methyl alcohol	None known	Mexico: TWA 200 ppm Mexico: TWA 260 mg/m^3
Ethyl alcohol	None known	Mexico: TWA= 1000 ppm Mexico: TWA= 1900 mg/m^3
Water	None known	None known

CANADA

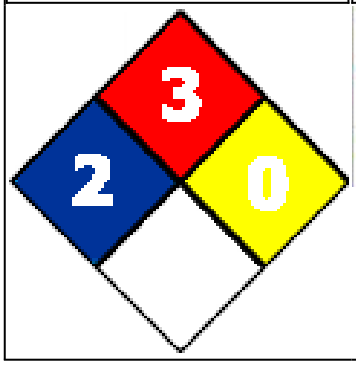
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

Component	WHMIS Hazard Class
Methyl red 493-52-7 (<0.05)	Uncontrolled product according to WHMIS classification criteria
Thymol blue 76-61-9 (<0.05)	Not Determined
Phenolphthalein 77-09-8 (<0.05)	Not Determined
Bromothymol blue 76-59-5 (<0.05)	Uncontrolled product according to WHMIS classification criteria
Potassium hydroxide 1310-58-3 (<0.1)	1 % D1B E
2,4-Dinitrophenol 51-28-5 (0.05)	0.1 %
Methyl alcohol 67-56-1 (2)	1 % B2 D1B D2A D2B
Ethyl alcohol 64-17-5 (52)	0.1 % B2 D2B
Water 7732-18-5 (to 100%)	Uncontrolled product according to WHMIS classification criteria

Chemical name	NPRI
Methyl alcohol	X

Legend
X - Listed

16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol
			

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Disclaimer

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End of MSDS