

Issuing Date 2/6/2013

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	BROMCRESOL GREEN-METHYL RED IN ETHYLENE GLYCOL
Product Code(s)	2311-EG
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**WARNING!****Emergency Overview**

Harmful if swallowed

Irritating to eyes

May cause skin irritation

Affects central nervous system

Appearance Dark, Blue green**Physical State** Liquid**Odor** Odorless**Potential Health Effects****Principle Routes of Exposure**

Eye contact, Skin contact, Ingestion, and, Inhalation.

Acute Toxicity**Eyes**

Irritating to eyes.

Skin

May cause irritation.

Inhalation

May cause irritation of respiratory tract. Inhalation of vapors in high concentration may cause irritation of respiratory system. May cause pulmonary edema.

Ingestion

Harmful if swallowed. Ingestion of ethylene glycol may cause nausea, vomiting, abdominal cramps, convulsions, and kidney failure which could result in death. May cause adverse cardiac effects, blood disturbances, and metabolic acidosis. May cause central nervous system depression.

Chronic Effects

May cause adverse kidney effects. May cause central nervous system effects. May cause adverse reproductive effects.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Methyl red	493-52-7	<0.1
Bromcresol green	76-60-8	0.1
Thiosulfate, sodium, pentahydrate	10102-17-7	0.2
Ethylene glycol	107-21-1	55
Water	7732-18-5	to 100%

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. Remove and wash contaminated clothing before re-use. If irritation develops or persists, consult physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Call a physician immediately.
Ingestion	Call a physician immediately. Induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person.
Notes to Physician	Symptoms may be delayed.
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	111 °C (231.8 °F) CC for 100% Ethylene glycol			
Suitable Extinguishing Media	Water spray, dry chemical, carbon dioxide (CO ₂), or foam.			
Explosion Data				
NFPA	Health Hazard 2	Flammability 1	Stability 0	Physical and Chemical Hazards -
HMIS	Health Hazard 2	Flammability 1	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.
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Storage Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep away from heat and sources of ignition. Separate from acids. Keep away from oxidizing agents. 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
Bromocresol green 76-60-8	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate 10102-17-7	None Known	None Known	None Known
Ethylene glycol 107-21-1	None Known	None Known	None Known
Water 7732-18-5	None Known	None Known	None Known

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields. Avoid contact with eyes.
Skin and Body Protection 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 Blue green	Odor	Odorless
Physical State	Liquid	pH	Not applicable
Flash Point	111 °C (231.8 °F) CC for 100% Ethylene glycol	Autoignition Temperature	397.8°C (748°F) for 100% Ethylene Glycol
Boiling Point/Range	ca. 109.2°C (228.5°F) for ~55% Ethylene Glycol	Freezing Point	-37°C (-36°F) for 100% Ethylene Glycol
		Flammability Limits in Air	For 100% Ethylene Glycol:
		Upper	15.3% by volume
		Lower	3.2% by volume
Vapor Pressure	0.012265 kPa at 25°C for 100% Ethylene Glycol	Vapor Density	2.14 @ 20°C (Air=1) for 100% Ethylene Glycol

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions of use and storage.

Incompatible Products Strong oxidizing agents. Strong acids.

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

Bromcresol green	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate	5000 mg/kg (Rat)	None Known	None Known
Ethylene glycol	4000 mg/kg (Rat)	9530 µL/kg (Rabbit)	None Known
Water	90 mL/kg (Rat)	None Known	None Known

Chronic Toxicity**Chronic Toxicity**

May cause adverse kidney effects. May cause central nervous system effects. May cause adverse reproductive effects.

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
Bromcresol green	None Known	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate	None Known	None Known	None Known	None Known
Ethylene glycol	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Methyl red	None Known	None Known	None Known
Bromcresol green	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate	None Known	None Known	None Known
Ethylene glycol	None Known	None Known	None Known
Water	None Known	None Known	None Known

12. ECOLOGICAL INFORMATION

Ecotoxicity

At the concentration present, this preparation is not expected to present significant adverse environmental effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Methyl red	None Known	None Known	None Known	None Known
Bromcresol green	None Known	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate	None Known	LC50= 24000 mg/L Gambusia affinis 96 h	None Known	None Known
Ethylene glycol	EC50 1300 - 6500 mg/L 96 h	LC50= 16000 mg/L Poecilia reticulata 96 h LC50= 27500 mg/L Lepomis macrochirus 96 h LC50= 40761 mg/L Oncorhynchus mykiss 96 h LC50= 41000 mg/L Oncorhynchus mykiss 96 h LC50= 49000 mg/L Pimephales promelas 96 h	EC50 = 10000 mg/L 16 h EC50 = 620 mg/L 30 min EC50 = 620.0 mg/L 30 min	EC50 = 46300 mg/L 48 h
Water	None Known	None Known	None Known	None Known

Persistence and Degradability

Based on components, product is expected to be readily biodegradable.

Chemical Name	Log Pow
Methyl red	None Known
Bromcresol green	None Known
Thiosulfate, sodium, pentahydrate	None Known
Ethylene glycol	= -1.93
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
Bromcresol green - 76-60-8	None Known	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate - 10102-17-7	None Known	None Known	None Known	None Known
Ethylene glycol - 107-21-1	None Known	None Known	None Known	None Known
Water - 7732-18-5	None Known	None Known	None Known	None Known

14. TRANSPORT INFORMATION

DOT Not regulated**IATA** Not regulated**IMDG/IMO** Not regulated

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Methyl red 493-52-7 (<0.1)	Present	X	X	5-243	X	KE-06693	X	X
Bromcresol green 76-60-8 (0.1)	Present	X	X	ENCS	X	KE-02745	X	X
Thiosulfate, sodium, pentahydrate 10102-17-7 (0.2)	TSCA	X	EINECS/ELINCS	1-503	X	KECL	X	X
Ethylene glycol 107-21-1 (55)	T	X	X	2-230	X	KE-13169	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	<0.1	None Known
Bromcresol green	76-60-8	0.1	None Known
Thiosulfate, sodium, pentahydrate	10102-17-7	0.2	None Known
Ethylene glycol	107-21-1	55	1.0
Water	7732-18-5	to 100%	None Known

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as 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 (<0.1)	None Known	None Known	None Known	None Known
Bromcresol green 76-60-8 (0.1)	None Known	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate 10102-17-7 (0.2)	None Known	None Known	None Known	None Known
Ethylene glycol 107-21-1 (55)	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	<0.1	None Known	None Known	None Known	None Known
Bromcresol green	76-60-8	0.1	None Known	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate	10102-17-7	0.2	None Known	None Known	None Known	None Known
Ethylene glycol	107-21-1	55	Present	Group I	None Known	None Known
Water	7732-18-5	to 100%	None Known	None Known	None Known	None Known

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Methyl red	None Known	None Known
Bromcresol green	None Known	None Known
Thiosulfate, sodium, pentahydrate	None Known	None Known
Ethylene glycol	5000 lb	None Known
Water	None Known	None Known

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

Chemical Name	CAS-No	California Prop. 65
Methyl red	493-52-7	None Known
Bromcresol green	76-60-8	None Known
Thiosulfate, sodium, pentahydrate	10102-17-7	None Known
Ethylene glycol	107-21-1	None Known
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
Bromcresol green	None Known	None Known	None Known	None Known	None Known
Thiosulfate, sodium, pentahydrate	None Known	X	None Known	None Known	None Known
Ethylene glycol	X	X	X	X	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
Bromcresol green	None Known	None Known
Thiosulfate, sodium, pentahydrate	None Known	None Known
Ethylene glycol	None Known	None Known
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 (<0.1)	Uncontrolled product according to WHMIS classification criteria
Bromcresol green 76-60-8 (0.1)	Uncontrolled product according to WHMIS classification criteria
Thiosulfate, sodium, pentahydrate 10102-17-7 (0.2)	Uncontrolled product according to WHMIS classification criteria
Ethylene glycol 107-21-1 (55)	1 %
Water 7732-18-5 (to 100%)	Uncontrolled product according to WHMIS classification criteria

Chemical Name	NPRI
Ethylene glycol	X

Legend
X - Listed

16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"> <tr> <td>Health Hazard</td> <td>2</td> </tr> <tr> <td>Fire Hazard</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </table>	Health Hazard	2	Fire Hazard	1	Reactivity	0		
Health Hazard	2								
Fire Hazard	1								
Reactivity	0								

Prepared By Regulatory Affairs Department
 Issuing Date 2/6/2013
 Revision Date -
 Revision Note Update to Format.
 Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS