

World Headquarters
Hach Company
P.O.Box 389
Loveland, CO USA 80539
(970) 669-3050

MSDS No: M00009

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Bromcresol Green-Methyl Red Indicator Powder
Catalog Number: 94399

Hach Company
P.O.Box 389
Loveland, CO USA 80539
(970) 669-3050

Emergency Telephone Numbers:
(Medical and Transportation)
(303) 623-5716 24 Hour Service
(515)232-2533 8am - 4pm CST

MSDS Number: M00009
Chemical Name: Not applicable
CAS No.: Not applicable
Chemical Formula: Not applicable
Chemical Family: Not applicable
Hazard: May cause irritation.
Date of MSDS Preparation:
Day: 05
Month: December
Year: 2013

2. COMPOSITION / INFORMATION ON INGREDIENTS

Citric Acid

CAS No.: 77-92-9
TSCA CAS Number: 77-92-9
Percent Range: < 0.1
Percent Range Units: weight / weight
LD50: Oral rat LD50 = 6730 mg/Kg; LD50 oral rat - 5,400 mg/kg; LD50 oral rat = 3,000 mg/kg;
LC50: None reported
TLV: 10 mg/m³ as inhalable dust
PEL: 15 mg/m³ as total dust; 5 mg/m³ as respirable dust
Hazard: May be harmful if swallowed Causes eye and skin irritation

Methyl Red, Sodium Salt

CAS No.: 845-10-3
TSCA CAS Number: 845-10-3
Percent Range: < 0.01
Percent Range Units: weight / weight
LD50: None reported
LC50: None reported
TLV: Not established
PEL: Not established
Hazard: Toxic properties unknown. May cause irritation.

Bromcresol Green

CAS No.: 76-60-8
TSCA CAS Number: 76-60-8
Percent Range: < 0.0001
Percent Range Units: weight / weight
LD50: Oral rat LD₅₀ > 3200 mg/kg
LC50: None reported
TLV: 10 mg/m³ as inhalable dust; 3 mg/m³ as respirable dust

PEL: 15 mg/m³ as total dust; 5 mg/m³ as respirable dust
Hazard: May cause irritation. Toxic properties unknown.

Potassium Hydroxide

CAS No.: 1310-58-3
TSCA CAS Number: 1310-58-3
Percent Range: < 0.5
Percent Range Units: weight / weight
LD50: Oral rat LD50 = 273 mg/kg
LC50: None reported
TLV: 10 mg/m³ as inhalable dust; 3 mg/m³ as respirable dust
PEL: 15 mg/m³ as inhalable dust; 5 mg/m³ as respirable dust
Hazard: Toxic. Causes severe burns.

Potassium Chloride

CAS No.: 7447-40-7
TSCA CAS Number: 7447-40-7
Percent Range: > 99.0
Percent Range Units: weight / weight
LD50: Oral rat LD₅₀ = 2600 mg/kg
LC50: None reported.
TLV: 10 mg/m³ as inhalable dust; 3 mg/m³ as respirable dust
PEL: 15 mg/m³ as inhalable dust; 5 mg/m³ as respirable dust
Hazard: May cause irritation.

Sodium Citrate

CAS No.: 68-04-2
TSCA CAS Number: 68-04-2
Percent Range: < 0.1
Percent Range Units: weight / weight
LD50: Oral rat LD50 > 8 g/Kg
LC50: Not available
TLV: 10 mg/m³ as inhalable dust; 3 mg/m³ as respirable dust
PEL: 15 mg/m³ as total dust; 5 mg/m³ as respirable dust
Hazard: May cause irritation.

Sulfuric Acid

CAS No.: 7664-93-9
TSCA CAS Number: 7664-93-9
Percent Range: < 0.2
Percent Range Units: weight / weight
LD50: Oral rat LD50 = 2140 mg/kg
LC50: Inhalation rat LC50 = 87 ppm/4 hr
TLV: 1 mg/m³
PEL: 1 mg/m³
Hazard: Causes severe burns. Harmful if inhaled. STRONG INORGANIC ACID MISTS CONTAINING SULFURIC ACID CAN CAUSE CANCER

3. HAZARDS IDENTIFICATION

Emergency Overview:

Appearance: Red-brown to green powder

Odor: None

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION

HMIS:

Health: 1

Flammability: 0

Reactivity: 0

Protective Equipment: X - See protective equipment, Section 8.

NFPA:

Health: 1

Flammability: 0

Reactivity: 0

Symbol: Not applicable

Potential Health Effects:

Eye Contact: May cause irritation

Skin Contact: May cause irritation

Skin Absorption: No effects anticipated

Target Organs: Not applicable

Ingestion: May cause: gastrointestinal disturbances blood pressure changes cardiac depression gastroenteritis

Target Organs: None reported

Inhalation: May cause: irritation of nose and throat

Target Organs: None reported

Medical Conditions Aggravated: Pre-existing: Kidney conditions

Chronic Effects: None reported

Cancer / Reproductive Toxicity Information:

This product does NOT contain any OSHA listed carcinogens.

This product does NOT contain any IARC listed chemicals.

This product does NOT contain any NTP listed chemicals.

Additional Cancer / Reproductive Toxicity Information: None reported

Toxicologically Synergistic Products: None reported

4. FIRST AID

Eye Contact: Immediately flush eyes with water for 15 minutes. Call physician.

Skin Contact (First Aid): Wash skin with plenty of water. Call physician if irritation develops.

Ingestion (First Aid): Give large quantities of water. Call physician immediately.

Inhalation: Remove to fresh air.

5. FIRE FIGHTING MEASURES

Flammable Properties: Does not burn, but may melt in a fire, releasing toxic fumes.

Flash Point: Not applicable

Method: Not applicable

Flammability Limits:

Lower Explosion Limits: Not applicable

Upper Explosion Limits: Not applicable

Autoignition Temperature: Not determined

Hazardous Combustion Products: None reported

Fire / Explosion Hazards: None reported

Static Discharge: None reported.

Mechanical Impact: None reported

Extinguishing Media: Use media appropriate to surrounding fire conditions

Fire Fighting Instruction: As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Spill Response Notice:

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Containment Technique: Stop spilled material from being released to the environment.

Clean-up Technique: If permitted by regulation, Sweep up material. Dilute with a large excess of water. Flush the spilled material to the drain with a large excess of water. Otherwise, Pick up spill for disposal and place in a closed container. Dispose of in accordance with local, state and federal regulations or laws.

Evacuation Procedure: Evacuate as needed to perform spill clean-up. If conditions warrant, increase the size of the evacuation.

Special Instructions (for accidental release): Not applicable

304 EHS RQ (40 CFR 355): Not applicable

D.O.T. Emergency Response Guide Number: None

7. HANDLING / STORAGE

Handling: Avoid contact with eyes skin. Do not breathe dust. Wash thoroughly after handling. Maintain general industrial hygiene practices when using this product.

Storage: Keep container tightly closed when not in use.

Flammability Class: Not applicable

8. EXPOSURE CONTROLS / PROTECTIVE EQUIPMENT

Engineering Controls: Maintain general industrial hygiene practices when using this product.

Personal Protective Equipment:

Eye Protection: safety glasses with top and side shields

Skin Protection: disposable latex gloves. In the EU, the selected gloves must satisfy the specifications of EU Directive 89/686/EEC and standard EN 374 derived from it. lab coat

Inhalation Protection: adequate ventilation

Precautionary Measures: Avoid contact with: eyes skin. Do not breathe: dust. Wash thoroughly after handling.

TLV: Not established

PEL: Not established

9. PHYSICAL / CHEMICAL PROPERTIES

Appearance: Red-brown to green powder

Physical State: Solid

Molecular Weight: Not applicable

Odor: None

pH: of 5% solution = 9.0

Vapor Pressure: Not applicable

Vapor Density (air = 1): Not applicable

Boiling Point: Not applicable

Melting Point: 181°C (358°F)

Specific Gravity/ Relative Density (water = 1; air = 1): 1.91

Evaporation Rate (water = 1): Not applicable

Volatile Organic Compounds Content: Not applicable

Partition Coefficient (n-octanol / water): Not determined

Solubility:

Water: Soluble

Acid: Soluble

Other: Not determined

Metal Corrosivity:

Steel: Not determined

Aluminum: Not determined

10. STABILITY / REACTIVITY

Chemical Stability: Stable when stored under proper conditions.

Conditions to Avoid: Extreme temperatures. Excess moisture.

Reactivity / Incompatibility: None reported.

Hazardous Decomposition: Toxic fumes of: chlorides.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Product Toxicological Data:

LD50: None reported

LC50: None reported

Dermal Toxicity Data: None reported

Skin and Eye Irritation Data: None reported

Mutation Data: None reported

Reproductive Effects Data: None reported

Ingredient Toxicological Data: Potassium Chloride: Oral rat LD₅₀ = 2600 mg/kg, Oral man LD_{Lo} = 20 mg/kg

12. ECOLOGICAL INFORMATION

Product Ecological Information: --

No ecological data available for this product. Mobility in soil: No data available

Ingredient Ecological Information: Potassium Chloride: EC50 Daphnia magna 48h = 83 mg/l;

13. DISPOSAL CONSIDERATIONS

EPA Waste ID Number: None

Special Instructions (Disposal): Dilute material with excess water making a weaker than 5% solution. Open cold water tap completely, slowly pour the material to the drain. Flush system with plenty of water.

Empty Containers: Rinse three times with an appropriate solvent. Dispose of empty container as normal trash.

NOTICE (Disposal): These disposal guidelines are based on federal regulations and may be superseded by more stringent state or local requirements. Please consult your local environmental regulators for more information.

14. TRANSPORT INFORMATION

D.O.T.:

D.O.T. Proper Shipping Name: Not Currently Regulated

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DOT Hazard Class: NA

DOT Subsidiary Risk: NA

DOT ID Number: NA

DOT Packing Group: NA

I.C.A.O.:

I.C.A.O. Proper Shipping Name: Not Currently Regulated

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ICAO Hazard Class: NA

ICAO Subsidiary Risk: NA

ICAO ID Number: NA

ICAO Packing Group: NA

I.M.O.:

I.M.O. Proper Shipping Name: Not Currently Regulated

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I.M.O. Hazard Class: NA

I.M.O. Subsidiary Risk: NA

I.M.O. ID Number: NA

I.M.O. Packing Group: NA

Additional Information: There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is NOT in a set or kit, the classification given above applies. If the item IS part of a set or kit, the classification would change to the following: UN3316 Chemical Kit, Class 9, PG II or III. If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION

U.S. Federal Regulations:

O.S.H.A.: This product meets the criteria for a hazardous substance as defined in the Hazard Communication Standard. (29 CFR 1910.1200)

E.P.A.:

S.A.R.A. Title III Section 311/312 Categorization (40 CFR 370): Immediate (Acute) Health Hazard

S.A.R.A. Title III Section 313 (40 CFR 372): This product does NOT contain any chemical subject to the reporting requirements of Section 313 of Title III of SARA.

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302 (EHS) TPQ (40 CFR 355): Not applicable

304 CERCLA RQ (40 CFR 302.4): Not applicable

304 EHS RQ (40 CFR 355): Not applicable

Clean Water Act (40 CFR 116.4): Not applicable

RCRA: Contains no RCRA regulated substances.

C.P.S.C.: Not applicable

State Regulations:

California Prop. 65: No Prop. 65 listed chemicals are present in this product.

Identification of Prop. 65 Ingredient(s): None

California Perchlorate Rule CCR Title 22 Chap 33: Not applicable

Trade Secret Registry: Not applicable

National Inventories:

U.S. Inventory Status: All ingredients in this product are listed on the TSCA 8(b) Inventory (40 CFR 710).

TSCA CAS Number: Not applicable

16. OTHER INFORMATION

Intended Use: Laboratory Reagent Indicator for pH

References: 29 CFR 1900 - 1910 (Code of Federal Regulations - Labor). Air Contaminants, Federal Register, Vol. 54, No. 12. Thursday, January 19, 1989. pp. 2332-2983. TLV's Threshold Limit Values and Biological Exposure Indices for 1992-1993. American Conference of Governmental Industrial Hygienists, 1992. Technical Judgment. In-house information. Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Fire Protection Guide on Hazardous Materials, 10th Ed. Quincy, MA: National Fire Protection Association, 1991.

Revision Summary: Substantial revision to comply with EU Reg 1272/2008, Reg 1907/2006 and UN GHS (ST/SG/AC.10/36/Add.3).

Legend:

NA - Not Applicable

ND - Not Determined

NV - Not Available

w/w - weight/weight

w/v - weight/volume

v/v - volume/volume

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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