

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 2329232 Bromcresol Green-Methyl Red Indicator Solution

Revision date: 13.05.2015

Product code: 2329232

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#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

2329232 Bromcresol Green-Methyl Red Indicator Solution

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

###### Use of the substance/mixture

Water analysis

##### 1.3. Details of the supplier of the safety data sheet

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

##### 1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Highly flammable liquid and vapour.

May cause respiratory irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness.

##### 2.2. Label elements

###### Regulation (EC) No. 1272/2008

###### Hazard components for labelling

propan-2-ol; isopropyl alcohol; isopropanol

Signal word: Danger

Pictograms:



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#### Hazard statements

H225	Highly flammable liquid and vapour.
H335	May cause respiratory irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

#### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P370+P378	In case of fire: Use dry sand to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to Disposal.

#### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

#### 2.3. Other hazards

no data available

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	85-95 %
	200-661-7	603-117-00-0
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
7732-18-5	Water	5-15 %
	231-791-2	
62625-32-5	Bromkresolgreen Sodium salt	>1 %
	263-657-4	
1310-58-3	potassium hydroxide; caustic potash	<1 %
	215-181-3	019-002-00-8
	Acute Tox. 4, Skin Corr. 1A; H302 H314	
845-10-3	Methyl red sodium salt	<1 %
	212-682-9	
	Muta. 2, Aquatic Chronic 3; H341 H412	

Full text of H and EUH statements: see section 16.

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#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### General information

Take off contaminated clothing and shoes immediately.  
Show this safety data sheet to the doctor in attendance.

###### After inhalation

Move to fresh air.  
If symptoms persist, call a physician.

###### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Take off all contaminated clothing immediately. If skin irritation persists, call a physician.

###### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

###### After ingestion

Clean mouth with water and drink afterwards plenty of water. Consult a physician.

##### 4.2. Most important symptoms and effects, both acute and delayed

Irritation and corrosion, Cough, Shortness of breath, headache,  
Dizziness, Tiredness, Coma, Drowsiness

Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.

##### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Alcohol-resistant foam, Dry powder

##### 5.2. Special hazards arising from the substance or mixture

Combustible Liquid  
Vapours may form explosive mixtures with air.  
Vapours are heavier than air and may spread along floors.  
Vapours may form explosive mixture with air.  
Pay attention to flashback.

##### 5.3. Advice for firefighters

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.  
In the event of fire, wear self-contained breathing apparatus.  
In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

###### Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.  
Do not breathe vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can

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accumulate in low areas.

For personal protection see section 8.

#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

#### 6.3. Methods and material for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

#### 6.4. Reference to other sections

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

13. Disposal considerations

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Use only in well-ventilated areas.

Avoid contact with skin and eyes.

Do not breathe vapours/dust.

Wash thoroughly after handling.

#### Advice on protection against fire and explosion

Highly flammable

#### Further information on handling

Observe label precautions.

Avoid contact with skin, eyes and clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Storage temperature: 10-25 °C, Keep away from heat and sources of ignition.

Keep container tightly closed in a dry and well-ventilated place.

#### Hints on joint storage

Do not store together with Acids, Oxidizing agents

### 7.3. Specific end use(s)

Laboratory chemicals

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
1310-58-3	Potassium hydroxide	-	2		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

### 8.2. Exposure controls

#### Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

#### Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the

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dangerous substance at the specific workplace.

Wash hands before breaks and after work.

#### Eye/face protection

Safety glasses with side-shields

#### Hand protection

Use barrier skin cream.

Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

In case of full contact:

Glove material : Nitrile rubber

Layer thickness: > 0,4 mm

Break through time: 480 min

In case of contact through splashing:

Glove material : Polychloropren

Layer thickness: > 0,65 mm

Break through time: > 120 min

#### Skin protection

Remove and wash contaminated clothing before re-use.

#### Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type: A

#### Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

Prevent further leakage or spillage if safe to do so.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	dark green
Odour:	alcohol-like
pH-Value (at 20 °C):	7

#### Changes in the physical state

Melting point:	-67 °C
Initial boiling point and boiling range:	79 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	c
:	no data available
Flash point:	16 °C
Sustaining combustion:	No data available

#### Flammability

Solid:	no data available
Gas:	no data available

#### Explosive properties

no data available

Lower explosion limits:	no data available
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Upper explosion limits:	no data available
Ignition temperature:	no data available
<b>Auto-ignition temperature</b>	
Solid:	410 °C
Gas:	410 °C
Decomposition temperature:	no data available
<b>Oxidizing properties</b>	
no data available	
Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	0,819 g/cm <sup>3</sup>
Bulk density:	not applicable
Water solubility: (at 20 °C)	miscible
<b>Solubility in other solvents</b>	
no data available	
Partition coefficient:	no data available
Viscosity / dynamic:	no data available
Viscosity / kinematic:	no data available
Flow time:	no data available
Vapour density:	no data available
Evaporation rate:	no data available
Solvent separation test:	no data available
Solvent content:	no data available
<b>9.2. Other information</b>	
Solid content:	no data available
no data available	

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Vapours may form explosive mixtures with air.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

Reacts with the following substances:

Acids, Oxidizing agents, Nitric acid, Peroxides, Aldehydes, nitrogen oxides (NO<sub>x</sub>)

### 10.4. Conditions to avoid

Heat, flames and sparks.

### 10.5. Incompatible materials

Rubber products Plastic jerrican Acids, Oxidizing agents

### 10.6. Hazardous decomposition products

Heating can release hazardous gases. Carbon monoxide, Carbon dioxide (CO<sub>2</sub>)

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

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**Acute toxicity**

No data is available on the product itself.

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	oral	LD50 mg/kg	5045	rat	RTECS	
	dermal	LD50 mg/kg	12800	rabbit		
	inhalation (4 h) vapour	LC50	46,5 mg/l	rat		
1310-58-3	potassium hydroxide; caustic potash					
	oral	LD50 mg/kg	333	Rat	Merck	

**Irritation and corrosivity**

irritant effects

**STOT-single exposure**

The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

H336 - May cause drowsiness or dizziness.

**Further information**

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

**SECTION 12: Ecological information**
**12.1. Toxicity**

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	1400	96 h	Lepomis macrochirus (Bluegill sunfish)	
	Acute algae toxicity	ErC50 mg/l	> 1000	72 h	Pseudokirchneriella subcapitata (green algae)	IUCLID
	Acute crustacea toxicity	EC50 mg/l	13299	48 h	Daphnia magna (Water flea)	UICLID
1310-58-3	potassium hydroxide; caustic potash					
	Acute fish toxicity	LC50	80 mg/l	96 h	Gambusia affinis	IUCLID

**12.2. Persistence and degradability**

No data is available on the product itself.

**12.3. Bioaccumulative potential**

No data is available on the product itself.

**12.4. Mobility in soil**

no data available

**12.5. Results of PBT and vPvB assessment**

no data available

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#### 12.6. Other adverse effects

No known effect.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Advice on disposal

In accordance with local and national regulations.

##### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

##### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

##### Contaminated packaging

Dispose of as unused product.

The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

<u>14.1. UN number:</u>	UN 1219
<u>14.2. UN proper shipping name:</u>	ISOPROPANOL (ISOPROPYL ALCOHOL) solution
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	II
Hazard label:	3



Classification code:	F1
Special Provisions:	601
Limited quantity:	1 L
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

#### Other applicable information (land transport)

Excepted Quantities: E2

#### Inland waterways transport (ADN)

##### Other applicable information (inland waterways transport)

Not tested

#### Marine transport (IMDG)

<u>14.1. UN number:</u>	UN 1219
<u>14.2. UN proper shipping name:</u>	ISOPROPANOL (ISOPROPYL ALCOHOL), solution
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	II
Hazard label:	3



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Marine pollutant: --  
Special Provisions: -  
Limited quantity: 1 L  
EmS: F-E, S-D

**Other applicable information (marine transport)**

Excepted Quantities: E2

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** UN 1219  
**14.2. UN proper shipping name:** ISOPROPANOL (ISOPROPYL ALCOHOL), solution  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3



Special Provisions: A180  
Limited quantity Passenger: 1 L  
IATA-packing instructions - Passenger: 353  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 364  
IATA-max. quantity - Cargo: 60 L

**Other applicable information (air transport)**

Passenger-LQ: Y341  
Excepted Quantities: E2

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not relevant

**Other applicable information**

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P  
These transport data apply to the entire pack

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

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#### Changes

Revision: 13.05.2015

Safety datasheet sections which have been updated: 2, 11

Revision: 16.05.2014

Safety datasheet sections which have been updated: 4,5,6,7,8,9,10, 11,12,14,15,16

Revision: 11.01.2013

Safety datasheet sections which have been updated: 11,12

#### Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
H412	Harmful to aquatic life with long lasting effects.

#### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*