according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 05, 2019

Identification	
Product identifier	
<ul> <li>Trade name: <u>Bromothymol Blue Indicator Solution</u>, 0.04% w/v</li> <li>Product code: DUMTK-603-02</li> </ul>	
<ul> <li>Recommended use and restriction on use</li> <li>Recommended use: Laboratory chemicals</li> <li>Restrictions on use: No relevant information available.</li> </ul>	
<ul> <li>Details of the supplier of the Safety Data Sheet</li> <li>Manufacturer/Supplier: AquaPhoenix Scientific, Inc.</li> <li>860 Gitts Run Road Hanover, PA 17331</li> <li>Phone: (717)632-1291</li> <li>Toll-Free: (866)632-1291</li> <li>info@aquaphoenixsci.com</li> <li>Distributor:</li> <li>Dubois Chemicals Inc.</li> <li>3630 East Kemper Rd</li> <li>Cincinnati, OH 45241</li> <li>(800) 438-2647</li> </ul>	
Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International)	

#### <sup>•</sup> Classification of the substance or mixture

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

- <sup>•</sup> Label elements
- · GHS label elements Not regulated.
- · Hazard pictograms: None.
- · Signal word: None
- · Hazard statements: None.
- · Precautionary statements: None.

• Other hazards There are no other hazards not otherwise classified that have been identified.

## 3 Composition/information on ingredients

#### · Chemical characterization: Mixtures

#### · Components:

7732-18-5 Water
-----------------

34722-90-2 Sodium α-(3-bromo-5-isopropyl-4-oxo-2-methyl-2,5-cyclohexadienylidene)-2-(3bromo-4-hydroxy-5-isopropyl-2-methylphenyl)toluenesulphonate

#### • Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

>90%

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 05, 2019

#### Trade name: Bromothymol Blue Indicator Solution, 0.04% w/v

(Cont'd. of page 1)

### 4 First-aid measures Description of first aid measures · General information: No special measures required. • After inhalation: Supply fresh air; consult doctor in case of complaints. · After skin contact: Wash with soap and water. If skin irritation is experienced, consult a doctor. · After eve contact: Protect unharmed eye. Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. · After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; immediately call for medical help. · Most important symptoms and effects, both acute and delayed: Gastric or intestinal disorders when ingested. Nausea in case of ingestion. · Danger: No relevant information available. Indication of any immediate medical attention and special treatment needed: If medical advice is needed, have product container or label at hand.

#### 5 Fire-fighting measures

#### Extinguishing media

• Suitable extinguishing agents: Use fire fighting measures that suit the environment.

- For safety reasons unsuitable extinguishing agents: No relevant information available.
- Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

<sup>•</sup> Advice for firefighters

#### · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

#### 6 Accidental release measures

• Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation.

#### **Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

Dispose of the collected material according to regulations.

**Reference to other sections** 

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 05, 2019

#### Trade name: Bromothymol Blue Indicator Solution, 0.04% w/v

(Cont'd. of page 2)

#### 7 Handling and storage

#### <sup>·</sup> Handling

#### Precautions for safe handling:

Prevent formation of aerosols.

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

· Information about protection against explosions and fires: No special measures required.

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

Requirements to be met by storerooms and receptacles:

Due to photo-sensitivity, store product in brown-glass receptacles.

Store in cool, dry conditions in well sealed receptacles.

- Information about storage in one common storage facility:
- Store away from foodstuffs.

Store away from caustic solutions.

Further information about storage conditions:

Keep containers tightly sealed.

Protect from sunlight.

• Specific end use(s) No relevant information available.

### 8 Exposure controls/personal protection

#### Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

#### • Exposure controls

#### · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- Keep away from foodstuffs, beverages and feed.
- Engineering controls: Provide adequate ventilation.
- · Breathing equipment: Not required under normal conditions of use.
- Protection of hands:



Protective gloves

#### · Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

## Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

#### Eye protection:



Safety glasses

(Cont'd. on page 4)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 05, 2019

Trade name: Bromothymol Blue Indicator Solution, 0.04% w/v

(Cont'd. of page 3)

Follow relevant national guidelines concerning the use of protective eyewear.

· Body protection: Protective work clothing

· Limitation and supervision of exposure into the environment No special requirements.

· Risk management measures No special requirements.

9 Physical and chemical properties		
<sup>·</sup> Information on basic physical a	nd chemical properties	
· Appearance:		
Form:	Liquid	
Color:	Dark green	
· Odor: · Odor threshold:	Odorless Not determined.	
· pH-value:	Not determined.	
Melting point/Melting range:	Not determined.	
· Boiling point/Boiling range:	105-110 °C (221-230 °F)	
· Flash point:	The product is not flammable.	
· Flammability (solid, gaseous):	Not applicable.	
· Auto-ignition temperature:	Not determined.	
· Decomposition temperature:	Not determined.	
<ul> <li>Danger of explosion:</li> </ul>	Product does not present an explosion hazard.	
· Explosion limits		
Lower:	Not determined.	
Upper:	Not determined.	
<ul> <li>Oxidizing properties:</li> </ul>	Not determined.	
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)	
· Density:		
Relative density:	Not determined.	
Vapor density:	Not determined.	
Evaporation rate:	Not determined.	
· Solubility in / Miscibility with		
Water:	Not determined.	
· Partition coefficient (n-octanol/wate	er): Not determined.	
· Viscosity		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
<sup>·</sup> Other information	No relevant information available.	

## 10 Stability and reactivity

· Reactivity: No relevant information available.

(Cont'd. on page 5)

Safety Data Sheet according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 05, 2019

Trade name: Bromothymol Blue Indicator Solution, 0.04% w/v
<ul> <li>Chemical stability: Stable under normal temperatures and pressures.</li> <li>Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.</li> <li>Possibility of hazardous reactions Toxic fumes may be released if heated above the decomposition point.</li> <li>Conditions to avoid Keep away from heat/sparks/open flames/hot surfaces No smoking. Direct sunlight.</li> <li>Incompatible materials No relevant information available.</li> <li>Hazardous decomposition products Under fire conditions only: Sulfur oxides (SOx) Sulfur dioxide Bromine compounds</li> </ul>
11 Toxicological information
11 Toxicological information
<ul> <li>Information on toxicological effects</li> <li>Acute toxicity:</li> <li>LD/LC50 values that are relevant for classification: None.</li> <li>Primary irritant effect:</li> <li>On the skin: Based on available data, the classification criteria are not met.</li> <li>On the eye: Based on available data, the classification criteria are not met.</li> <li>Sensitization: Based on available data, the classification criteria are not met.</li> </ul>
· IARC (International Agency for Research on Cancer):
None of the ingredients are listed.
· NTP (National Toxicology Program):
None of the ingredients are listed.
OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.
<ul> <li>Probable route(s) of exposure: Ingestion. Inhalation. Eye contact. Skin contact.</li> <li>Acute effects (acute toxicity, irritation and corrosivity): No relevant information available.</li> <li>Repeated dose toxicity: No relevant information available.</li> <li>Germ cell mutagenicity: Based on available data, the classification criteria are not met.</li> <li>Carcinogenicity: Based on available data, the classification criteria are not met.</li> <li>Reproductive toxicity: Based on available data, the classification criteria are not met.</li> <li>STOT-single exposure: Based on available data, the classification criteria are not met.</li> <li>STOT-repeated exposure: Based on available data, the classification criteria are not met.</li> <li>Aspiration hazard: Based on available data, the classification criteria are not met.</li> </ul>
12 Ecological information

(Cont'd. on page 6)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 05, 2019

Trade name: Bromothymol Blue Indicator Solution, 0.04% w/v

(Cont'd. of page 5)

- <sup>·</sup> Toxicity
- · Aquatic toxicity No relevant information available.
- Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.
- <sup>•</sup> Additional ecological information
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Other adverse effects No relevant information available.

## **13 Disposal considerations**

#### <sup>·</sup> Waste treatment methods

#### · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

#### <sup>·</sup> Uncleaned packagings

• **Recommendation:** Disposal must be made according to official regulations.

Transport information		
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
<sup>·</sup> UN proper shipping name <sup>·</sup> DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
<sup>·</sup> Transport hazard class(es)		
· DOT, ADR/RID/ADN, IMDG, IATA · Class	Not regulated.	
<sup>·</sup> Packing group <sup>·</sup> DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
· Environmental hazards	Not applicable.	
Special precautions for user	Not applicable.	
<ul> <li>Transport in bulk according to Annex MARPOL73/78 and the IBC Code</li> </ul>	<b>II of</b> Not applicable.	

## 15 Regulatory information

(Cont'd. on page 7)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 05, 2019

mixture	(Cont'd. of page (Cont'd. of page) alth and environmental regulations/legislation specific for the substance
<ul> <li>United State</li> <li>SARA</li> </ul>	es (USA)
	(extremely hazardous substances):
None of the i	ingredients are listed.
Section 355	(extremely hazardous substances):
None of the i	ingredients are listed.
· Section 313	(Specific toxic chemical listings):
None of the i	ingredients are listed.
· TSCA (Toxio	c Substances Control Act)
	Sodium $\alpha$ -(3-bromo-5-isopropyl-4-oxo-2-methyl-2,5-cyclohexadienylidene)-2-(3-bromo-hydroxy-5-isopropyl-2-methylphenyl)toluenesulphonate
7732-18-5	Water
· Proposition	65 (California)
•	known to cause cancer:
None of the i	ingredients are listed.
· Chemicals k	known to cause developmental toxicity for females:
None of the i	ingredients are listed.
· Chemicals k	known to cause developmental toxicity for males:
None of the i	ingredients are listed.
· Chemicals k	known to cause developmental toxicity:
None of the i	ingredients are listed.
· EPA (Enviro	onmental Protection Agency):
None of the i	ingredients are listed.
· IARC (Intern	national Agency for Research on Cancer):
None of the i	ingredients are listed.
· Canadian D	omestic Substances List (DSL):
None of the i	ingredients are listed.

## **16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

### · Sources

(Cont'd. on page 8)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: July 05, 2019

#### Trade name: Bromothymol Blue Indicator Solution, 0.04% w/v

(Cont'd. of page 7)

Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers
SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com