1. PRODUCT AND COMPANY IDENTIFICATION

Product Name              Bromothymol Blue
Cat No.                   B388-10
Synonyms                  3',3"-Dibromothymolsulfonephthalein (Certified ACS)
Recommended Use           Laboratory chemicals

Company                   Fisher Scientific
                          One Reagent Lane
                          Fair Lawn, NJ 07410
                          Tel: (201) 796-7100

Emergency Telephone Number
                          CHEMTREC®, Inside the USA: 800-424-9300
                          CHEMTREC®, Outside the USA: 703-527-3887

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview
May cause skin, eye, and respiratory tract irritation. The toxicological properties have not been fully investigated.

Appearance  Pale red-brown
Physical State   Solid
odor  odorless

Target Organs      None known.
Potential Health Effects

Acute Effects
Principle Routes of Exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>May cause irritation.</td>
</tr>
<tr>
<td>Skin</td>
<td>May cause irritation.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause irritation of respiratory tract.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May cause irritation.</td>
</tr>
</tbody>
</table>

Chronic Effects      None known.
See Section 11 for additional Toxicological information.

Aggravated Medical Conditions   No information available.
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Haz/Non-haz</th>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dibromothymolsulfonphthalein</td>
<td>76-59-5</td>
<td>&gt;95</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact
Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation
Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

Ingestion
Do not induce vomiting. Obtain medical attention.

Notes to Physician
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point
Method
No information available.

Autoignition Temperature
No information available.

Explosion Limits
Upper
No data available

Lower
No data available

Suitable Extinguishing Media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media
No information available.

Hazardous Combustion Products
No information available.

Sensitivity to mechanical impact
No information available.

Sensitivity to static discharge
No information available.

Specific Hazards Arising from the Chemical
Keep product and empty container away from heat and sources of ignition.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA
Health 1  Flammability 1  Instability 0  Physical hazards N/A

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions
Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.
Environmental Precautions

Should not be released into the environment.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. HANDLING AND STORAGE

Handling

Wear personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Exposure Guidelines

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Pale red-brown</td>
</tr>
<tr>
<td>odor</td>
<td>odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>204°C / 399.2°F</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Specific Gravity</td>
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</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water</td>
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<tr>
<td>log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>624.38</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C27 H28 Br2 O5 S</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY
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**Stability**
Stable under normal conditions.

**Conditions to Avoid**

**Incompatible Materials**
Strong oxidizing agents

**Hazardous Decomposition Products**
Carbon monoxide (CO), Carbon dioxide (CO₂), Sulfur oxides

**Hazardous Polymerization**
Hazardous polymerization does not occur.

**Hazardous Reactions**
None under normal processing.

11. TOXICOLOGICAL INFORMATION

**Acute Toxicity**

**Product Information**
No acute toxicity information is available for this product

**Component Information**

**Irritation**
No information available.

**Toxicologically Synergistic Products**
No information available.

**Chronic Toxicity**

**Carcinogenicity**
There are no known carcinogenic chemicals in this product

**Sensitization**
No information available.

**Mutagenic Effects**
No information available.

**Reproductive Effects**
No information available.

**Developmental Effects**
No information available.

**Teratogenicity**
No information available.

**Other Adverse Effects**
See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

**Endocrine Disruptor Information**
No information available

12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Do not empty into drains.

**Persistence and Degradability**
No information available
Bioaccumulation/ Accumulation: No information available
Mobility: No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods**
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. TRANSPORT INFORMATION

**DOT**
Not regulated

**TDG**
Not regulated

**IATA**
Not regulated

**IMDG/IMO**
Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
<th>CHINA</th>
<th>KECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibromothymolsulfonphthalein</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>200-971-2</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>KE-02744</td>
<td>X</td>
</tr>
</tbody>
</table>

[Legend]
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.
**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313**
Not applicable

**SARA 311/312 Hazardous Categorization**

- **Acute Health Hazard** No
- **Chronic Health Hazard** No
- **Fire Hazard** No
- **Sudden Release of Pressure Hazard** No
- **Reactive Hazard** No

**Clean Water Act**
Not applicable

**Clean Air Act**
Not applicable

**OSHA**
Not applicable

**CERCLA**
Not Applicable

**California Proposition 65**
This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**
Not applicable

**U.S. Department of Transportation**

- **Reportable Quantity (RQ):** N
- **DOT Marine Pollutant:** N
- **DOT Severe Marine Pollutant:** N

**U.S. Department of Homeland Security**
This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade**
No information available

**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.

**WHMIS Hazard Class**
Non-controlled
16. OTHER INFORMATION

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Tel: (412) 490-8929

Reviewed
2013.04.25
09:37:47 -04'00'

Creation Date
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Print Date
06-May-2010

Revision Summary
“***”, and red text indicates revision

Disclaimer
The information provided on this Safety Data Sheet 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