Safety Data Sheet

Cat. # 786-498

Coomassie Brilliant Blue

Size: 1 Liter
Coomassie Brilliant Blue R-250 Stain
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Revision date: 5/11/2017

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

1.1. Product identifier

Product form: Mixture
Product name: Coomassie Brilliant Blue R-250 Stain
Product code: 270C
Product group: Blend

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

1.2.1. Relevant identified uses
No additional information available

1.2.2. Uses advised against
No additional information available

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./G-Biosciences
9800 Page Avenue
63132-1429 Saint Louis - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number: Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Adverse physicochemical, human health and environmental effects
To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]
No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deionized water</td>
<td>(CAS-No.) 7732-18-5</td>
<td>50 - 80</td>
<td>Not classified</td>
</tr>
<tr>
<td>methanol</td>
<td>(CAS-No.) 67-56-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(EC-No.) 200-659-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(EC Index-No.) 603-001-00-X</td>
<td>10 - 50</td>
<td>Flam. Liq. 2, H225, Acute Tox. 3 (Oral), H301, Acute Tox. 3 (Dermal), H311, Acute Tox. 3 (Inhalation), H331, Acute Tox. 3 (Inhalation: vapour), H331, STOT SE 1, H370</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>Specific concentration limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic acid</td>
<td>[CAS-No.]: 64-19-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[EC-No.]: 200-580-7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[EC Index-No.]: 607-002-00-6</td>
<td>10 - 50</td>
</tr>
<tr>
<td>Coomassie Brilliant Blue R-250 Dye</td>
<td>[CAS-No.]: 6104-59-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[EC-No.]: 228-060-5</td>
<td>&lt; 0.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product identifier</th>
<th>Specific concentration limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td></td>
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<tr>
<td>[CAS-No.]: 67-56-1</td>
<td>(3 &lt;= C &lt; 10) STOT SE 2, H371</td>
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<tr>
<td>[EC-No.]: 200-659-6</td>
<td>(C &gt;= 10) STOT SE 1, H370</td>
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<tr>
<td>Acetic acid</td>
<td></td>
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<tr>
<td>[CAS-No.]: 64-19-7</td>
<td>(10 &lt;= C &lt; 25) Eye Irrit. 2, H319</td>
</tr>
<tr>
<td>[EC-No.]: 200-580-7</td>
<td>(C &gt;= 25) Skin Irr. 2, H315</td>
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<tr>
<td></td>
<td>(25 &lt;= C &lt; 90) Skin Corr. 1B, H314</td>
</tr>
<tr>
<td></td>
<td>(C &gt;= 90) Skin Corr. 1A, H314</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>Specific concentration limits</th>
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</thead>
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<tr>
<td>Acetic acid</td>
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</tr>
<tr>
<td></td>
<td>[EC Index-No.]: 607-002-00-6</td>
<td>10 - 50</td>
</tr>
</tbody>
</table>

Full text of H-statements: see section 16

SECTION 4: First aid measures
4.1. Description of first aid measures
First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact: Wash skin with plenty of water.
First-aid measures after eye contact: Rinse eyes with water as a precaution.
First-aid measures after ingestion: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed
No additional information available

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

SECTION 5: Firefighting measures
5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture
Fire hazard: Combustible liquid.
Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Advice for firefighters
Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Emergency procedures: Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>EU IOELV TWA (mg/m³)</th>
<th>EU IOELV TWA (ppm)</th>
<th>United Kingdom WEL TWA (mg/m³)</th>
<th>United Kingdom WEL TWA (ppm)</th>
<th>United Kingdom WEL STEL (mg/m³)</th>
<th>United Kingdom WEL STEL (ppm)</th>
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</thead>
<tbody>
<tr>
<td>methanol (67-56-1)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>EU</td>
<td></td>
<td>260</td>
<td>200</td>
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<td>EU</td>
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<td>266</td>
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<td>EU</td>
<td></td>
<td>333</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>acetic acid (64-19-7)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU</td>
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<td>25</td>
<td>10</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

Hand protection: Protective gloves

Eye protection: Safety glasses

Skin and body protection: Wear suitable protective clothing

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
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<td>Colour</td>
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<td>Odour</td>
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<tr>
<td>Odour threshold</td>
<td>No data available</td>
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<tr>
<td>pH</td>
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<tr>
<td>Relative evaporation rate</td>
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<tr>
<td>Melting point</td>
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<tr>
<td>Freezing point</td>
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<td>Boiling point</td>
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<tr>
<td>Flash point</td>
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<tr>
<td>Auto-ignition temperature</td>
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<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
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<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
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<tr>
<td>Vapour pressure</td>
<td>No data available</td>
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<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
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</tbody>
</table>
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Relative density: No data available
Solubility: No data available
Log Pow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
 Explosive properties: No data available
 Oxidising properties: No data available
 Explosive limits: No data available

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral): Not classified
Acute toxicity (dermal): Not classified
Acute toxicity (inhalation): Not classified

methanol (67-56-1)

LD50 oral rat 1187 - 2769 mg/kg bodyweight (BASF test, Rat, Male/female, Weight of evidence)
LD50 dermal rabbit 17100 mg/kg (Rabbit, Inconclusive, insufficient data)
LC50 inhalation rat (mg/l) 128.2 mg/l air (BASF test, 4 h, Rat, Male/female, Weight of evidence)

Coomassie Brilliant Blue R-250 Dye (6104-59-2)

LD50 oral rat > 5000 mg/kg (Rat)

acetic acid (64-19-7)

LD50 oral rat 3310 mg/kg bodyweight (Rat, Male/female, Experimental value)
LC50 inhalation rat (mg/l) 11.4 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Female, Experimental value)

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: Not classified

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
### Acute aquatic toxicity

- **methanol (67-56-1)**
  - LC50 fish 1: 15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)
- **acetic acid (64-19-7)**
  - EC50 Daphnia 1: > 1000 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)

### Chronic aquatic toxicity

- **methanol (67-56-1)**
  - EC50 Daphnia 1: 18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value)
- **acetic acid (64-19-7)**
  - EC50 72h algae (1): > 1000 mg/l (ISO 10253, Skeletonema costatum, Static system, Salt water, Experimental value)

### 12.2. Persistence and degradability

- **methanol (67-56-1)**
  - Persistence and degradability: Biodegradable in the soil. Readily biodegradable in water.
  - Biochemical oxygen demand (BOD): 0.6 - 1.12 g O₂/g substance
  - Chemical oxygen demand (COD): 1.42 g O₂/g substance
  - ThOD: 1.5 g O₂/g substance

- **acetic acid (64-19-7)**
  - Persistence and degradability: Readily biodegradable in the soil. Readily biodegradable in water.
  - Biochemical oxygen demand (BOD): 0.6 - 0.74 g O₂/g substance
  - Chemical oxygen demand (COD): 1.03 g O₂/g substance
  - ThOD: 1.07 g O₂/g substance

### 12.3. Bioaccumulative potential

- **methanol (67-56-1)**
  - BCF fish 1: 1 - 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
  - Log Pow: -0.77 (Experimental value)
  - Bioaccumulative potential: Low potential for bioaccumulation (BCF < 500).

- **acetic acid (64-19-7)**
  - BCF fish 1: 3.16 (Pisces, Fresh water, QSAR)
  - Log Pow: -0.17 (Experimental value, 25 °C)
  - Bioaccumulative potential: Not bioaccumulative.

### 12.4. Mobility in soil

- **methanol (67-56-1)**
  - Surface tension: 0.023 N/m (20 °C)
  - Log Koc: -0.89 - -0.21 (log Koc, Calculated value)
  - Ecology - soil: Highly mobile in soil.

- **acetic acid (64-19-7)**
  - Surface tension: 26.3 mN/m (30 °C)
  - Ecology - soil: Highly mobile in soil. May be harmful to plant growth, blooming and fruit formation.

### 12.5. Results of PBT and vPvB assessment

- **methanol (67-56-1)**
  - This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
  - This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

- **acetic acid (64-19-7)**
  - This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
  - This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Waste treatment methods</th>
<th>Waste treatment methods</th>
</tr>
</thead>
</table>

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

| UN-No. (ADR) | Not applicable |
| UN-No. (IMDG) | Not regulated |
| UN-No. (IATA) | Not regulated |
| UN-No. (ADN) | Not applicable |
| UN-No. (RID) | Not applicable |

#### 14.2. UN proper shipping name

| Proper Shipping Name (ADR) | Not applicable |
| Proper Shipping Name (IMDG) | Not regulated |
| Proper Shipping Name (IATA) | Not regulated |
| Proper Shipping Name (ADN) | Not applicable |
| Proper Shipping Name (RID) | Not applicable |

#### 14.3. Transport hazard class(es)

| ADR | Transport hazard class(es) (ADR) : Not applicable |
| IMDG | Transport hazard class(es) (IMDG) : Not regulated |
| IATA | Transport hazard class(es) (IATA) : Not regulated |
| ADN | Transport hazard class(es) (ADN) : Not applicable |
| RID | Transport hazard class(es) (RID) : Not applicable |

#### 14.4. Packing group

| Packing group (ADR) | Not applicable |
| Packing group (IMDG) | Not regulated |
| Packing group (IATA) | Not regulated |
| Packing group (ADN) | Not applicable |
| Packing group (RID) | Not applicable |

#### 14.5. Environmental hazards

| Dangerous for the environment | No |
| Marine pollutant | No |
| Other information | No supplementary information available |

#### 14.6. Special precautions for user

- **Overland transport**
  Not applicable

- **Transport by sea**
  Not regulated

- **Air transport**
  Not regulated
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- Inland waterway transport
  Not applicable

- Rail transport
  Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
  Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
  Contains no REACH substances with Annex XVII restrictions
  Contains no substance on the REACH candidate list
  Contains no REACH Annex XIV substances

15.1.2. National regulations
  No additional information available

15.2. Chemical safety assessment
  No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Acute Tox. 3 (Dermal)</th>
<th>Acute toxicity (dermal), Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 (Inhalation)</td>
<td>Acute toxicity (inhal.), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3 (Inhalation:vapour)</td>
<td>Acute toxicity (inhalation:vapour) Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3 (Oral)</td>
<td>Acute toxicity (oral), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 4 (Inhalation:vapour)</td>
<td>Acute toxicity (inhalation:vapour) Category 4</td>
</tr>
<tr>
<td>Flam. Liq. 2</td>
<td>Flammable liquids, Category 2</td>
</tr>
<tr>
<td>Flam. Liq. 3</td>
<td>Flammable liquids, Category 3</td>
</tr>
<tr>
<td>Skin Corr. 1A</td>
<td>Skin corrosion/irritation, Category 1A</td>
</tr>
<tr>
<td>STOT SE 1</td>
<td>Specific target organ toxicity — single exposure, Category 1</td>
</tr>
<tr>
<td>H225</td>
<td>Highly flammable liquid and vapour.</td>
</tr>
<tr>
<td>H226</td>
<td>Flammable liquid and vapour.</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin.</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled.</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>H370</td>
<td>Causes damage to organs.</td>
</tr>
</tbody>
</table>

Safety Data Sheet applicable for regions:

GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.