1 Identification

- **Product identifier**
- **Trade name:** Coomassie Brilliant Blue R-250 Destain Soln
- **Catalog or product number:** 1610438, 1610439, 1610438EDU, 1610439EDU
- **Application of the substance / the mixture** Laboratory chemicals

- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** Bio-Rad Laboratories, Life Science Group
  2000 Alfred Nobel Drive
  Hercules, California  94547  (510)741-1000
- **Information department:**
  Technical services, customer support
  lsg_techserv_us@bio-rad.com
- **Emergency telephone number:**
  1(800)424-9300  Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.
  510-741-1000

2 Hazard(s) identification

- **Classification of the substance or mixture**
  Flam. Liq.  2  H225  Highly flammable liquid and vapor.
  Acute Tox.  3  H331  Toxic if inhaled.
  Skin Irrit.  2  H315  Causes skin irritation.
  Eye Irrit.  2A  H319  Causes serious eye irritation.
  STOT SE 1  H370  Causes damage to organs.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

    - GHS02
    - GHS06
    - GHS07
    - GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**
  methanol

- **Hazard statements**
  H225  Highly flammable liquid and vapor.
  H331  Toxic if inhaled.
  H315  Causes skin irritation.
  H319  Causes serious eye irritation.
  H370  Causes damage to organs.

- **Precautionary statements**
  P210  Keep away from heat/sparks/open flames/hot surfaces. No smoking.
  P241  Use explosion-proof electrical/ventilating/lighting/equipment.
  P303+P361+P353  If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

(Contd. on page 2)
Trade name: Coomassie Brilliant Blue R-250 Destain Soln

42.2.4
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information: Contact with acids may cause release of toxic gases
· Other hazards
· Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures
  · Description: Mixture of the substances listed below with non-hazardous additions.

· Listing of dangerous and non-hazardous components:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Hazard Class</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>Flammable Liquid 2 (H225), Acute Tox. 3 (H301), Acute Tox. 3 (H311), Acute Tox. 3 (H331), STOT SE 1, H370</td>
<td>20-35%</td>
</tr>
<tr>
<td>acetic acid, glacial</td>
<td>Flammable Liquid 3 (H226), Skin Corr. 1A (H314)</td>
<td>10-20%</td>
</tr>
<tr>
<td>water</td>
<td></td>
<td>50-100%</td>
</tr>
</tbody>
</table>

· Additional information For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

· Description of first aid measures
  · After inhalation Supply fresh air; consult doctor in case of complaints.
  · After eye contact Rinse opened eye for several minutes under running water.
  · After swallowing Induce vomiting and call for medical help.
  · Information for doctor
  · Most important symptoms and effects, both acute and delayed No further relevant information available.
  · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

· Extinguishing media
  · Suitable extinguishing agents
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  · Special hazards arising from the substance or mixture No further relevant information available.
  · Advice for firefighters
  · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures Wear protective clothing.
Trade name: Coomassie Brilliant Blue R-250 Destain Soln

- Environmental precautions:
  Dilute with plenty of water.
  Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- 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.

7 Handling and storage

- Handling
  - Precautions for safe handling: No special precautions are necessary if used correctly.
  - Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
  - Storage
    - Requirements to be met by storerooms and receptacles: According to product specification
    - Information about storage in one common storage facility: Not required.
    - Further information about storage conditions: None.
    - Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
  - Components with limit values that require monitoring at the workplace:
    67-56-1 methanol
    - PEL (): 260 mg/m³, 200 ppm
    - REL (): Short-term value: 325 mg/m³, 250 ppm
    - Long-term value: 260 mg/m³, 200 ppm
    - Skin
    - TLV (): Short-term value: 328 mg/m³, 250 ppm
    - Long-term value: 262 mg/m³, 200 ppm
    - Skin; BEI
    64-19-7 acetic acid, glacial
    - PEL (): 25 mg/m³, 10 ppm
    - REL (): Short-term value: 37 mg/m³, 15 ppm
    - Long-term value: 25 mg/m³, 10 ppm
    - TLV (): Short-term value: 37 mg/m³, 15 ppm
    - Long-term value: 25 mg/m³, 10 ppm
Ingredients with biological limit values:

- 67-56-1 methanol

  BEI (I) 15 mg/L
  Medium: urine
  Time: end of shift
  Parameter: Methanol (background, nonspecific)

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

- Personal protective equipment
- General protective and hygienic measures Wash hands before breaks and at the end of work.
- Breathing equipment: Not required.
- Protection of hands: Protective gloves.
- Material of gloves Synthetic gloves
- 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

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Liquid
    - Color: Colorless
  - Odor: Acrid
  - Odor threshold: Not determined.
  - pH-value: Not determined.
- Change in condition
  - Melting point/Melting range: undetermined
  - Boiling point/Boiling range: undetermined
- Flash point: Not applicable
- Flammability (solid, gaseous) Not applicable.
- Ignition temperature: 455 °C
- Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: 4.0 Vol %
  - Upper: 44.0 Vol %
- Vapor pressure at 20 °C: 128 hPa
- Density at 20 °C: 0.92102 g/cm³
  - Relative density Not determined.
Trade name: Coomassie Brilliant Blue R-250 Destain Soln

- Vapor density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with Water: Fully miscible
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - dynamic: Not determined.
  - kinematic: Not determined.
- Solvent content:
  - Organic solvents: 45.7 %
  - Water: 54.3 %
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values for hazardous components per OSHA criteria:
    - 67-56-1 methanol
      - Oral LD50: 5628 mg/kg (rat)
      - Dermal LD50: 20000 mg/kg (rat)
    - 64-19-7 acetic acid, glacial
      - Oral LD50: 3310 mg/kg (rat)
- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Irritant effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - None of the ingredients is listed.
12 Ecological information

- **Toxicity**
  - **Aquatic toxicity**: No further relevant information available.
  - **Persistence and degradability**: No further relevant information available.

- **Behavior in environmental systems**:
  - **Bioaccumulative potential**: No further relevant information available.
  - **Mobility in soil**: No further relevant information available.

- **Additional ecological information**:
  - **General notes**:
    - Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - **Results of PBT and vPvB assessment**
    - **PBT**: Not applicable.
    - **vPvB**: Not applicable.
  - **Other adverse effects**: No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation**
    - Hand over to hazardous waste disposers.
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings**:
  - **Recommendation**: Disposal must be made according to official regulations.
  - **Recommended cleansing agent**: Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**: UN2924

  - **DOT, ADR, IMDG, IATA**
  - **UN proper shipping name**
    - **DOT**: Flammable liquids, corrosive, n.o.s. (Methanol, Acetic acid, glacial)
    - **ADR**: 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHANOL, ACETIC ACID, GLACIAL)
    - **IMDG, IATA**: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (METHANOL, ACETIC ACID, GLACIAL)
### Transport hazard class(es)

<table>
<thead>
<tr>
<th>DOT</th>
<th>Class</th>
<th>Label</th>
<th>ADR</th>
<th>Class</th>
<th>Label</th>
<th>IMDG</th>
<th>Class</th>
<th>Label</th>
<th>IATA</th>
<th>Class</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>8</td>
<td></td>
<td>3</td>
<td>8+3</td>
<td>3</td>
<td>3</td>
<td>8/8</td>
<td>3</td>
<td>(8)</td>
<td></td>
</tr>
</tbody>
</table>

### Environmental hazards:
- Marine pollutant: No

### Special precautions for user
- EMS Number: F-E-S-C
- Segregation groups: Acids
- Stowage Category: A
- Stowage Code: SW2 Clear of living quarters.

### Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
- Not applicable.

### Transport/Additional information:
- DOT
  - Quantity limitations: Void
  - Remarks: ERG 132
- ADR
  - Excepted quantities (EQ): Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
- IMDG
  - Limited quantities (LQ): 5L
  - Excepted quantities (EQ): Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml
- UN "Model Regulation": UN 2924 FLAMMABLE LIQUIDS, CORROSIVE, N.O.S. (METHANOL, ACETIC ACID, GLACIAL), 3 (8), III

(Contd. of page 8)
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)
    - **Section 302/304 (40CFR355.30 / 40CFR355.40):**
      None of the ingredients is listed.
    - **Section 313 (40CFR372.65):**
      67-56-1 methanol
  - TSCA (Toxic Substances Control Act):
    - All ingredients are listed.
  - California Proposition 65:
    - Developmental Toxicity
      67-56-1 methanol

- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    - None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    - None of the ingredients is listed.
  - MAK (German Maximum Workplace Concentration)
    - None of the ingredients is listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    - None of the ingredients is listed.

- National regulations
  - Technical instructions (air):
    | Class | Share in % |
    |-------|------------|
    | I     | 20-35      |
    | II    | 10-20      |

- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

- **Department issuing SDS:** Environmental Health and Safety.
- **Contact:**
  Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000
  Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000
- **Date of preparation / last revision** 04/27/2016 / -
· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (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
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  NIOSH: National Institute for Occupational Safety
  OSHA: Occupational Safety & Health
  TLV: Threshold Limit Value
  PEL: Permissible Exposure Limit
  REL: Recommended Exposure Limit
  BEI: Biological Exposure Limit
  Flam. Liq. 2: Flammable liquids, Hazard Category 2
  Flam. Liq. 3: Flammable liquids, Hazard Category 3
  Acute Tox. 3: Acute toxicity, Hazard Category 3
  Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

* Data compared to the previous version altered.