1 Identification

- **Product identifier**
- **Trade name**: Trypan Blue Dye, 0.4% solution
- **Catalog or product number**: 1450013, 1450001, 1450002, 1450003, 1450004, 1450021, 1450022, 1450102, 1450103, 1450003EDU
- **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.
- **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**
  Carc. 1A H350 May cause cancer.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    GHS08

- **Signal word** Danger
- **Hazard statements**
  H350 May cause cancer.
- **Precautionary statements**
  P280 Wear protective gloves/protective clothing/eye protection/face protection.
  P201 Obtain special instructions before use.
  P202 Do not handle until all safety precautions have been read and understood.
  P308+P313 If exposed or concerned: Get medical advice/attention.
  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.

(Contd. on page 2)
3 Composition/information on ingredients

- Chemical characterization: Substances
  - CAS No. Description: 7732-18-5 water
  - Identification number(s):
  - EC number: 231-791-2
- Chemical characterization: Mixtures
  - Description: Mixture of the substances listed below with non-hazardous additions.
- Listing of dangerous and non-hazardous components:
  - 72-57-1 tetrasodium 3,3''-[3,3''-dimethyl[1,1''-biphenyl]-4,4'-diyl]bis(azo)bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate] 0.1-1.0%
  - 7732-18-5 water 50-100%

- 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 skin contact Generally the product does not irritate the skin.
  - 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.
- 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).
Safety Data Sheet
acc. to OSHA HCS

Printing date 08/07/2015
Reviewed on 08/07/2015

Trade name: Trypan Blue Dye, 0.4% solution

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:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  · 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: Blue
      · Odor: Odorless
      · Odour threshold: Not determined.
  · pH-value: Not determined.
**Trade name: Trypan Blue Dye, 0.4% solution**

(Contd. of page 3)

- **Change in condition**
  - Melting point/Melting range: 0 °C
  - Boiling point/Boiling range: undetermined

- **Flash point:** Not applicable

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:**
  - Decomposition temperature: Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.

- **Vapor pressure at 20 °C:** 23 hPa

- **Density:** Not determined
  - Relative density: Not determined.
  - Vapour density: Not determined.
  - Evaporation rate: Not determined.

- **Solubility in / Miscibility with**
  - Water: Not miscible or difficult to mix

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - dynamic: Not determined.
  - kinematic: Not determined.

- **Solvent content:**
  - Organic solvents: 0.0 %
  - Water: 98.7 %

- **Solids content:** 1.3 %

- **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:
    - Primary irritant effect:
      - on the skin: No irritant effect.
      - on the eye: No irritant effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - Carcinogenic categories
    - IARC (International Agency for Research on Cancer)
      72-57-1 \(\text{tetrasodium 3,3'}-[\text{(3,3'}\text{-dimethyl[1,1'}\text{-biphenyl]-4,4'}\text{-diyl}]bis(azo))bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate}\) 2B
    - NTP (National Toxicology Program)
      None of the ingredients is listed.
    - OSHA-Ca (Occupational Safety & Health Administration)
      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 2 (Self-assessment): hazardous for water.
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.
- 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.
- 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**
  - DOT, ADR, ADN, IMDG, IATA: Void

- **DOT, ADR, ADN, IMDG, IATA**
  - Void

- **UN proper shipping name**
  - DOT, ADR, ADN, IMDG, IATA: Void

- **Transport hazard class(es)**
  - DOT, ADR, ADN, IMDG, IATA: Void
  - Class: Void

- **Packing group**
  - DOT, ADR, IMDG, IATA: Void

- **Environmental hazards:**
  - Marine pollutant: No

- **Special precautions for user**
  - Not applicable.

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

- **UN "Model Regulation":**
  - Void

### 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):**
  - 72-57-1 tetrasodium 3,3''-[(3,3''-dimethyl[1,1''-biphenyl]-4,4''-diyl)bis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate]

- **TSCA (Toxic Substances Control Act):**
  - All ingredients are listed.

- **California Proposition 65:**
  - Chemicals known to cause cancer:
    - 72-57-1 tetrasodium 3,3''-[(3,3''-dimethyl[1,1''-biphenyl]-4,4''-diyl)bis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate]

- **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.
**Trade name:** Trypan Blue Dye, 0.4% solution

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  None of the ingredients is listed.

- **National regulations**
  - **Water hazard class:** Water hazard class 2 (Self-assessment): 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** 08/07/2015 / -
- **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)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - Carc. 1A: Carcinogenicity, Hazard Category 1A
- **Data compared to the previous version altered.**