

## Material Safety Data Sheet

Printing date 02/27/2013

Reviewed on 02/27/2013

**1 Identification of the substance/mixture and of the company/undertaking**

- **Product identifier**
- **Trade name:** Liquichek Reticulocyte Control
- **Catalog or product number:** 516, 517, 518, 517X
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the preparation** *In-vitro laboratory reagent or component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*Bio-Rad Laboratories, Diagnostic Group  
9500 Jeronimo Road  
Irvine, California 92618-2017* 1(949) 598-1200
- **Information department:** *Technical services, customer support*
- **Emergency telephone number:**  
*1(800) 424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION, or ACCIDENT.*

**2 Hazards identification**

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** *not applicable*
- **Label elements**
- **Labelling according to EU guidelines:**  
*Observe the general safety regulations when handling chemicals  
The substance is not subject to classification according to EU lists and other sources of literature known to us.  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).*
- **Safety phrases:**  
*35 This material and its container must be disposed of in a safe way.*
- **Classification system**
- **NFPA ratings (scale 0-4)**  
*Health = 0  
Fire = 0  
Reactivity = 0*
- **Special Hazards** *Contains human sourced and/or potentially infectious components.*
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

**3 Composition/information on ingredients**

- **Chemical characterization:** *Substances*
- **CAS No. Description:**  
*Human Source Material*
- **Identification number(s):**
- **EC number:** *268-338-3*
- **Additional information:** *For the wording of the listed risk phrases refer to section 15.*

(Contd. on page 2)

QUS

## Material Safety Data Sheet

Printing date 02/27/2013

Reviewed on 02/27/2013

Trade name: Liquichek Reticulocyte Control

(Contd. of page 1)

- **Chemical characterization:** Mixtures
- **Listing of dangerous and non-hazardous components:** Void
- **Additional information** Contains human sourced and/or potentially infectious components.

#### 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** Generally the product does not irritate the skin.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed**
  - Skin irritation
  - Eye irritation
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.
- **Medical conditions aggravated by exposure:** None expected.

#### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
  - CO<sub>2</sub>, 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** Handle as potentially infectious.
- **Environmental precautions:**
  - Keep contaminated washing water and dispose of appropriately.
  - Dilute with plenty of water.
  - Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
  - Clean the affected area carefully; suitable cleaners are:
    - Disinfectant
    - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
    - Dispose contaminated material as waste according to item 13.
- **Reference to other sections** No dangerous substances are released.

#### 7 Handling and storage

- **Handling**
- **Precautions for safe handling**
  - No special measures required.
  - No special precautions are necessary if used correctly.

(Contd. on page 3)

QUS

**Material Safety Data Sheet**

Printing date 02/27/2013

Reviewed on 02/27/2013

**Trade name: Liquichek Reticulocyte Control**

(Contd. of page 2)

- **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**  
Follow the usual biosafety practices for handling potentially infectious materials.
- **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
- **Body protection:** Protective work clothing.

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

|               |          |
|---------------|----------|
| <b>Form:</b>  | Liquid   |
| <b>Color:</b> | Opaque   |
| <b>Odor:</b>  | Odorless |
- **pH-value at 20°C:** 7.5
- **Change in condition**

|                                     |              |
|-------------------------------------|--------------|
| <b>Melting point/Melting range:</b> | undetermined |
| <b>Boiling point/Boiling range:</b> | undetermined |
- **Flash point:** Not applicable
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density:** Not determined

(Contd. on page 4)

**Material Safety Data Sheet**

Printing date 02/27/2013

Reviewed on 02/27/2013

**Trade name: Liquichek Reticulocyte Control**

(Contd. of page 3)

- **Solubility in / Miscibility with Water:** Fully miscible
- **Solvent content:**
- Organic solvents:** 0.0 %
- Solids content:** 4.0 %
- **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Reactivity**
- **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:**  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
The substance is not subject to classification according to the latest version of the EU lists.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

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.

(Contd. on page 5)

**Material Safety Data Sheet**

Printing date 02/27/2013

Reviewed on 02/27/2013

**Trade name: Liquichek Reticulocyte Control**

(Contd. of page 4)

- **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** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- |  |  |
|--|--|
| · <b>UN-Number</b>   | Void   |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void   |
| · <b>UN proper shipping name</b>   | Void   |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void   |
| · <b>Transport hazard class(es)</b>  | Void   |
| · <b>ADR, ADN, IMDG, IATA</b>  | Void   |
| · <b>Class</b>   | Void   |
| · <b>Packing group</b>   | Void   |
| · <b>DOT, ADR, IMDG, IATA</b>  | Void   |
| · <b>Environmental hazards:</b>  | No   |
| · <b>Marine pollutant:</b>   | No   |
| · <b>Special precautions for user</b>  | Not applicable.                                      |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                                      |
| · <b>Transport/Additional information:</b>                                       | Not dangerous according to the above specifications. |

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **SARA (Superfund Amendants and Reauthorization Act of 1986 - USA)**

· **Section 302/304 (40CFR355.30 / 40CFR355.40):**

None of the ingredients is listed.

(Contd. on page 6)

**Material Safety Data Sheet**

Printing date 02/27/2013

Reviewed on 02/27/2013

**Trade name: Liquichek Reticulocyte Control**

(Contd. of page 5)

**· Section 313 (40CFR372.65):**

None of the ingredients is listed.

**· TSCA (Toxic Substances Control Act):**

|            |   |
|------------|---|
| 7647-14-5  | sodium chloride                             |
| 9048-46-8  | Bovine Serum Albumin                        |
| 68399-77-9 | 2-hydroxy-4-morpholinepropanesulphonic acid |
| 50-99-7    | glucose                                     |
| 77-92-9    | citric acid                                 |
| 1310-73-2  | sodium hydroxide                            |

**· 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.

**· OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**· National regulations**

- 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 MSDS:** 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

**\* Data compared to the previous version altered.**