

**Material Safety Data Sheet**

Printing date 03/17/2010

Reviewed on 03/11/2010

**1 Identification of substance:**

- **Product details:**
- **Trade name:** Liquichek™ Cardiac Markers Control
- **Catalog or product number:** 685, 686, 687, 688, 685X
- **Application of the substance / the preparation** In-vitro laboratory reagent or component
- **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 information:**  
 1(800) 424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION, or ACCIDENT.

**2 Composition/Information on components:**

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

· **Listing of dangerous and non-hazardous components:**

Human Source Material	50-100%
Proprietary Component B, inorganic salt	2.5-5%
Proprietary Reagent BS 10	2.5-5%
Proprietary Component C	2.5-5%
Proprietary Reagent MS 1	1.0-2.5%
Proprietary Reagent BS 9	1.0-2.5%

- **Additional information** Contains human sourced and/or potentially infectious components.

**3 Hazards identification**

- **Emergency overview:** not applicable
- **Information pertaining to particular dangers for man and environment**  
 The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system**  
 The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0-4)**  
 Health = 0  
 Fire = 0  
 Reactivity = 0
- **Special Hazards** Contains human sourced and/or potentially infectious components.

**4 First aid measures**

- **General information** No special measures required.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact**  
 Immediately wash with water and soap and rinse thoroughly.

(Contd. on page 2)

## Material Safety Data Sheet

Printing date 03/17/2010

Reviewed on 03/11/2010

Trade name: **Liquichek™ Cardiac Markers Control**

(Contd. of page 1)

Generally the product does not irritate the skin.

- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Rinse mouth with water. Seek medical attention and appropriate follow-up.
- **Information for doctor**
- **The following symptoms may occur:**
  - Skin irritation
  - Eye irritation

## 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Person-related safety precautions:** Handle as potentially infectious.
- **Measures for environmental protection:**  
Keep contaminated washing water and dispose of appropriately.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb liquid components with liquid-binding material.  
Pick up mechanically.  
Clean the affected area carefully; suitable cleaners are:  
Disinfectant  
Dispose contaminated material as waste according to item 13.

## 7 Handling and storage

- **Handling**
- **Information for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** The product is not flammable
- **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:**  
Refer to package insert for additional information regarding storage conditions.

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **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.

(Contd. on page 3)

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**Material Safety Data Sheet**

Printing date 03/17/2010

Reviewed on 03/11/2010

**Trade name: Liquichek™ Cardiac Markers Control**

(Contd. of page 2)

- **Personal protective equipment**
- **General protective and hygienic measures**  
Follow the usual biosafety practices for handling potentially infectious materials.  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves.
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.  
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:**

· **General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow
<b>Odor:</b>	Light

· **Change in condition**

**Melting point/Melting range:** undetermined  
**Boiling point/Boiling range:** undetermined

· **Flash point:** Not applicable

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

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

· **Density:** Not determined

· **Solubility in / Miscibility with**

**Water:** Fully miscible

· **pH-value at 20°C:** 6.0-6.2

· **Solvent content:**

**Organic solvents:** 0.0 %

**Solids content:** 12.7 %

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:**
- **Dangerous reactions** No dangerous reactions known

(Contd. on page 4)

**Material Safety Data Sheet**

Printing date 03/17/2010

Reviewed on 03/11/2010

**Trade name: Liquichek™ Cardiac Markers Control**

(Contd. of page 3)

· **Dangerous products of decomposition:** No dangerous decomposition products known

**11 Toxicological information**

· **Acute toxicity:**

· **LD/LC50 values for hazardous components per OSHA criteria:**

**Proprietary Component C**

Oral	LD50	15900 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritant effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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.

**12 Ecological information:**

· **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.

**13 Disposal considerations**

· **Product:**

· **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**

· **DOT regulations:**

· **Hazard class:** -

· **Land transport ADR/RID (cross-border)**

· **ADR/RID class:** -

· **Maritime transport IMDG:**

· **IMDG Class:** -

· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** -

(Contd. on page 5)

**Material Safety Data Sheet**

Printing date 03/17/2010

Reviewed on 03/11/2010

**Trade name: Liquichek™ Cardiac Markers Control**

(Contd. of page 4)

· **Transport/Additional information:** Not dangerous according to the above specifications.

**15 Regulations**

· **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):**

None of the ingredients is listed.

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

Proprietary Reagent BS 10

Proprietary Component C

Proprietary Reagent MS 1

Proprietary Reagent BS 9

Proprietary Reagent BS 8

Proprietary Reagent KC

Proprietary Reagent MS2

Proprietary Reagent J17

Proprietary Reagent KB

Proprietary Reagent KD

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

Proprietary Reagent KB

· **Developmental Toxicity**

Proprietary Reagent KD

Proprietary Reagent J15

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

Proprietary Reagent KB

2A

· **NTP (National Toxicology Program)**

Proprietary Reagent KB

R

· **TLV (Threshold Limit Value established by ACGIH)**

Proprietary Reagent BS 10

A4

· **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.

(Contd. on page 6)

**Material Safety Data Sheet**

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**Trade name: Liquichek™ Cardiac Markers Control**

(Contd. of page 5)

**· Markings according to EU guidelines:**

Observe the general safety regulations when handling chemicals

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.

**· National regulations**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**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.**