

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/18/2015

Reviewed on 06/18/2015

**1 Identification**

- **Product identifier**
- **Trade name:** Ready Gel® 10%, 12% Zymogram
- **Catalog or product number:** 1611114, 1611168, 1611113, 1611131, 1611167, 1611185
- **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**  
The product is not classified according to the Globally Harmonized System (GHS).

---

- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **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:**

|            |                                            |         |
|------------|--------------------------------------------|---------|
| 7732-18-5  | water                                      | 50-100% |
| 25034-58-6 | Polyacrylamide-co-methylene-bis-acrylamide | 5-10%   |
| 56-81-5    | glycerol                                   | 2.5-5%  |
| 1185-53-1  | Tris-HCl                                   | 2.5-5%  |

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

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/18/2015

Reviewed on 06/18/2015

Trade name: Ready Gel® 10%, 12% Zymogram

(Contd. of page 1)

### 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** 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**  
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** Wear protective clothing.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
No dangerous substances are released.  
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 measures required.
- **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.

US

(Contd. on page 3)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/18/2015

Reviewed on 06/18/2015

Trade name: Ready Gel® 10%, 12% Zymogram

(Contd. of page 2)

**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:**

**56-81-5 glycerol**

|        |                                                                |
|--------|----------------------------------------------------------------|
| PEL () | 15* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction |
| TLV () | 10 ppm                                                         |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures** The usual precautionary measures for handling chemicals should be followed.
- **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:**

|                         |                 |
|-------------------------|-----------------|
| <b>Form:</b>            | Solid           |
| <b>Color:</b>           | Colorless       |
| <b>Odor:</b>            | Odorless        |
| <b>Odour threshold:</b> | Not determined. |

· **pH-value:** Not applicable.

· **Change in condition**

|                                     |              |
|-------------------------------------|--------------|
| <b>Melting point/Melting range:</b> | undetermined |
| <b>Boiling point/Boiling range:</b> | undetermined |

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Not determined.

· **Ignition temperature:**

**Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | Not determined. |
| <b>Upper:</b> | Not determined. |

(Contd. on page 4)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/18/2015

Reviewed on 06/18/2015

**Trade name: Ready Gel® 10%, 12% Zymogram**

(Contd. of page 3)

|                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| · <b>Vapor pressure at 20 °C:</b>                 | 23 hPa                                     |
| · <b>Density:</b>                                 | Not determined                             |
| · <b>Relative density</b>                         | Not determined.                            |
| · <b>Vapour density</b>                           | Not applicable.                            |
| · <b>Evaporation rate</b>                         | Not applicable.                            |
| · <b>Solubility in / Miscibility with Water:</b>  | Insoluble                                  |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                               |                                            |
| dynamic:                                          | Not applicable.                            |
| kinematic:                                        | Not applicable.                            |
| · <b>Solvent content:</b>                         |                                            |
| Organic solvents:                                 | 4.2 %                                      |
| Water:                                            | 84.5 %                                     |
| <b>Solids content:</b>                            | 10.9 %                                     |
| · <b>Other information</b>                        | 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:**

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

**1185-53-1 Tris-HCl**

|      |      |                  |
|------|------|------------------|
| Oral | LD50 | 5900 mg/kg (rat) |
|------|------|------------------|

- **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.

(Contd. on page 5)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/18/2015

Reviewed on 06/18/2015

Trade name: Ready Gel® 10%, 12% Zymogram

(Contd. of page 4)

· **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.

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

None of the ingredients is listed.

· **Target organs:** Not applicable.

**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:** Generally not hazardous for water.

· **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**

Can be disposed of with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Hand over to hazardous waste disposers.

· **Uncleaned packagings:**

· **Recommendation:** Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

**14 Transport information**

· **UN-Number**

· **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**

· **Class**

Void

(Contd. on page 6)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/18/2015

Reviewed on 06/18/2015

Trade name: Ready Gel® 10%, 12% Zymogram

(Contd. of page 5)

|                                                                                  |                                                      |
|----------------------------------------------------------------------------------|------------------------------------------------------|
| · <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. |
| · <b>UN "Model Regulation":</b>                                                  | -                                                    |

**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):**

None of the ingredients is listed.

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

All ingredients are listed.

· **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 % |
|-------|------------|
| NK    | 2.5-5      |

· **Water hazard class:** Generally not hazardous for water.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

US

(Contd. on page 7)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 06/18/2015

Reviewed on 06/18/2015

**Trade name: Ready Gel® 10%, 12% Zymogram**

(Contd. of page 6)

**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** 06/18/2015 / -

· **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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