

**Material Safety Data Sheet**

Printing date 09/29/2011

Reviewed on 09/29/2011

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

- **Product identifier**
- **Trade name:** Ready Gel® 15% TBE-Urea
- **Catalog or product number:** 1611189, 1611117, 1611135, 3450093, 3450091, 3450092
- **Application of the substance / the preparation** 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.
- **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 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		35-50%
57-13-6	urea		35-50%
25034-58-6	Polyacrylamide-co-methylene-bis-acrylamide		10-20%
77-86-1	Tris(hydroxymethyl)aminomethane	Xn R22 Xi R36	1.0-2.5%
	boric acid	T Repr. Cat. 2 R60-61	0.1-1.0%

· **SVHC**

boric acid

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

**3 Hazards identification**

- **Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void
  - **Information concerning particular hazards for human 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.*  
*The classification was made according to OSHA 29CFR 1910.1200 and 1910.1030, and is expanded upon from company and/or literature information.*
- 
- **Label elements**
  - **Labelling according to EU guidelines:**  
*Observe the general safety regulations when handling chemicals*

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The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

- **Safety phrases:**

- 60 This material and its container must be disposed of as hazardous waste.

#### 4 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.

#### 5 Firefighting measures

- **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.
- **Protective equipment:** No special measures required.

#### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment (See section 8). Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **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.
- **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.

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**· Components with limit values that require monitoring at the workplace:**

**57-13-6 urea**

WEEL () 10 mg/m<sup>3</sup>

**boric acid**

TLV () Short-term value: 6 l mg/m<sup>3</sup>  
Long-term value: 2 l mg/m<sup>3</sup>

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

**· General Information**

**· Appearance:**

**Form:** Solid.  
**Color:** According to product specification

**· Odor:** Odorless  
**· Odour threshold:** Not determined.

**· pH-value:** Not applicable.

**· Change in condition**

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

**Lower:** Not determined.  
**Upper:** Not determined.

**· Vapor pressure at 20°C:** 23 hPa

**· Density:** Not determined  
**· Relative density** Not determined.  
**· Vapour density** Not applicable.  
**· Evaporation rate** Not applicable.

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- **Solubility in / Miscibility with Water:** Fully miscible
- **Segregation coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - dynamic:** Not applicable.
  - kinematic:** Not applicable.
- **Solvent content:**
  - Organic solvents:** 0.0 %
  - Water:** 45.9 %
- **Solids content:** 100.0 %
- **Other information:** No further relevant information available.

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

· **Acute toxicity:**

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

**57-13-6 urea**

Oral LD50 14500 mg/kg (rat)

**boric acid**

Oral LD50 2660 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.

· **Target organs:** Not applicable.

**12 Ecological information**

- **Acquatic 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.

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**· 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**

**· 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.

**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

**· 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.

**· Transport/Additional information:**

Not dangerous according to the above specifications.

**15 Regulatory information**

**· 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):**

7732-18-5 water

57-13-6 urea

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25034-58-6	Polyacrylamide-co-methylene-bis-acrylamide
77-86-1	Tris(hydroxymethyl)aminomethane
	boric acid

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

boric acid

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.

· **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.**