

## Material Safety Data Sheet

Printing date 04/14/2011

Reviewed on 01/20/2011

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

- **Product details:**
- **Trade name:** Equilibration Buffer
- **Catalog or product number:** 9703002
- **Application of the substance / the preparation:** Laboratory chemicals
- **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 information:**  
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**
- **Description:** Mixture of the substances listed below with non-hazardous additions.

## Listing of dangerous and non-hazardous components:

7732-18-5	water	50-100%
	Ammonium Sulfate	20-35%

- **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  
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.

(Contd. on page 2)

USA

## Material Safety Data Sheet

Printing date 04/14/2011

Reviewed on 01/20/2011

Trade name: Equilibration Buffer

(Contd. of page 1)

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

## 6 Accidental release measures

- **Person-related safety precautions:** Not required
- **Measures for environmental protection:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** No dangerous substances are released.

## 7 Handling and storage

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

## 8 Exposure controls/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.
- **Personal protective equipment**
- **General protective and hygienic measures:** The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves.
- **Material of gloves:** Synthetic gloves

(Contd. on page 3)

USA

**Material Safety Data Sheet**

Printing date 04/14/2011

Reviewed on 01/20/2011

Trade name: **Equilibration Buffer**

(Contd. of page 2)

- **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: liquid
  - Color: Colorless
  - Odor: Odorless

• **Change in condition**

- Melting point/Melting range: undetermined
- Boiling point/Boiling range: 100°C

- **Flash point:** Not applicable

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

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

- **Vapor pressure at 20°C:** 23 hPa

- **Density at 20°C:** 1.046 g/cm³

• **Solubility in / Miscibility with**

- Water: Fully miscible

• **Solvent content:**

- Organic solvents: 0.0 %
- Water: 73.4 %

- **Solids content:** 26.6 %

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

**11 Toxicological information**

• **Acute toxicity:**

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

Ammonium Sulfate

Oral | LD50 | 3000 mg/kg (rat)

• **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.

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

(Contd. on page 4)

USA

**Material Safety Data Sheet**

Printing date 04/14/2011

Reviewed on 01/20/2011

Trade name: **Equilibration Buffer**

(Contd. of page 3)

- **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**

• **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**  
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.
- **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:** -

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

**15 Regulatory information**

- **SARA (Superfund Ammendents and Reauthorization Act of 1986 - USA)**
- **Section 302/304 (40CFR355.30 / 40CFR355.40):**  
None of the ingredients is listed.

(Contd. on page 5)

USA

**Material Safety Data Sheet**

Printing date 04/14/2011

Reviewed on 01/20/2011

**Trade name: Equilibration Buffer**

(Contd. of page 4)

**Section 313 (40CFR372.65):**

Ammonium Sulfate

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

All ingredients are listed.

**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)**

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.

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

**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.