

Safety Data Sheet
acc. to OSHA HCS

Printing date 06/10/2015

Reviewed on 06/10/2015

1 Identification• **Product identifier**• **Trade name:** 5X IProof™ GC Buffer• **Catalog or product number:** 1725392, 10002429, 10002065• **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%
77-86-1	Tris(hydroxymethyl)aminomethane	2.5-5%
7447-40-7	potassium chloride	2.5-5%

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

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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**
CO₂, 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**:
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.

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- **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** The usual precautionary measures for handling chemicals should be followed.
- **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

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Odorless
Odour threshold:	Not determined.

pH-value at 20 °C: 9

Change in condition

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

Flash point: Not applicable

Flammability (solid, gaseous): Not applicable.

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.

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Trade name: 5X iProof™ GC Buffer

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• Vapor pressure at 20 °C:	23 hPa
• Density:	Not determined
• Relative density	Not determined.
• Vapour density	Not determined.
• Evaporation rate	Not determined.
• Solubility in / Miscibility with Water:	Fully miscible
• Partition coefficient (n-octanol/water):	Not determined.
• Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
• Solvent content:	
Organic solvents:	0.0 %
Water:	92.8 %
• Solids content:	7.2 %
• 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:

• LD/LC50 values for hazardous components per OSHA criteria:

77-86-1 Tris(hydroxymethyl)aminomethane

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.

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• 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:
- 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
- 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

• UN-Number	
• DOT, ADR, ADN, IMDG, IATA	Void
• UN proper shipping name	
• DOT, ADR, ADN, IMDG, IATA	Void

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• 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.
• UN "Model Regulation":	-

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):
Ammonium Sulfate
• TSCA (Toxic Substances Control Act):
7732-18-5 water
77-86-1 Tris(hydroxymethyl)aminomethane
7447-40-7 potassium chloride
Ammonium Sulfate
9002-93-1 Triton X-100
• 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
• Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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• **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 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** 06/10/2015 / -• **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.**

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1 Identification

- **Product identifier**
- **Trade name:** Magnesium Chloride Solution, 50 mM
- **Catalog or product number:** 1708872, 4206371, 4206498, 4206464, 10002431, 10002067, 10005709
- **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: Substances**
- **CAS No. Description:**
7732-18-5 water
- **Identification number(s):**
- **EC number:** 231-791-2
- **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%
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Trade name: Magnesium Chloride Solution, 50 mM

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

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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**
CO₂, 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:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.

(Contd. on page 3)

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