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

- **Product identifier**
  - **Trade name**: GMO Primers
  - **Catalog or product number**: 10000752
  - **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: 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**: Void
  - **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).
Material Safety Data Sheet

Trade name: GMO Primers

- **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**
  - 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.
- **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:** 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.
- **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.

(Contd. on page 3)
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

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
  Odor threshold: Not determined.
- pH-value at 20°C: 7.6
- Change in condition
  Melting point/Melting range: 0°C
  Boiling point/Boiling range: 100°C
- 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.
- Vapor pressure at 20°C: 23 hPa
- Density at 20°C: 1 g/cm³
  Relative density: Not determined.
  Vapour density: Not determined.
  Evaporation rate: Not determined.
- Solubility in / Miscibility with
  Water: Fully miscible
- Segregation coefficient (n-octonol/water): Not determined.
Material Safety Data Sheet

Trade name: GMO Primers

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>Dynamic: Not determined.</td>
</tr>
<tr>
<td></td>
<td>Kinematic: Not determined.</td>
</tr>
<tr>
<td>Solvent content</td>
<td>Organic solvents: 0.0 %</td>
</tr>
<tr>
<td></td>
<td>Water: 98.8 %</td>
</tr>
<tr>
<td>Solids content</td>
<td>0.3 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

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:
- 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

- 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.
- Additional ecological information:
- General notes: Generally not hazardous for water.

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.
## 14 Transport Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN-Number</strong></td>
<td>Void</td>
</tr>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>Void</td>
</tr>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
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</tr>
<tr>
<td>DOT, ADR, ADN, IMDG, IATA</td>
<td>Void</td>
</tr>
<tr>
<td><strong>Class</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>Void</td>
</tr>
<tr>
<td>DOT, ADR, IMDG, IATA</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental hazards:</strong></td>
<td></td>
</tr>
<tr>
<td>Marine pollutant:</td>
<td>No</td>
</tr>
<tr>
<td><strong>Special precautions for user</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Transport/Additional information:</strong></td>
<td>Not dangerous according to the above specifications.</td>
</tr>
</tbody>
</table>

## 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
- 1733-12-6 cresol red
- 77-86-1 Tris(hydroxymethyl)aminomethane

### 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.
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- 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.

- National regulations

- Water hazard class: Generally not 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.