

**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: iQ™ SYBR Green Supermix**
- **Catalog or product number:**  
1708880, 1708882, 1708880S, 1708885, 10003253, 1725006, 1708884, 4206381, 4206531, 4206382, 1708886, 8006699, 1708880AP, 1708882AP, 1708884AP, 1708885AP, 1708886AP
- **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                           |        | 50-100% |
|           | Proprietary carbohydrate        |        | 10-20%  |
| 56-81-5   | glycerol                        |        | 5-10%   |
| 67-68-5   | dimethyl sulfoxide              |        | 5-10%   |
|           | Proprietary Non Ionic Detergent | Xi R41 | 2.5-5%  |

- **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).

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· **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** Use fire fighting measures that suit the environment.
- **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.  
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.
- **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:**

**56-81-5 glycerol**

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

**67-68-5 dimethyl sulfoxide**

|         |         |
|---------|---------|
| WEEL () | 250 ppm |
|---------|---------|

- **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:**

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

|                            |     |
|----------------------------|-----|
| <b>· pH-value at 20°C:</b> | 8.4 |
|----------------------------|-----|

**· Change in condition**

|                                     |              |
|-------------------------------------|--------------|
| <b>Melting point/Melting range:</b> | undetermined |
| <b>Boiling point/Boiling range:</b> | 100°C        |

|                       |         |
|-----------------------|---------|
| <b>· Flash point:</b> | > 100°C |
|-----------------------|---------|

|  |                 |
|--|-----------------|
| <b>· Flammability (solid, gaseous)</b> | Not applicable. |
|--|-----------------|

|                                |       |
|--------------------------------|-------|
| <b>· Ignition temperature:</b> | 270°C |
|--------------------------------|-------|

|                                     |                 |
|-------------------------------------|-----------------|
| <b>· Decomposition temperature:</b> | Not determined. |
|-------------------------------------|-----------------|

|                         |                              |
|-------------------------|------------------------------|
| <b>· Auto igniting:</b> | Product is not selfigniting. |
|-------------------------|------------------------------|

|                               |   |
|-------------------------------|---|
| <b>· Danger of explosion:</b> | Product does not present an explosion hazard. |
|-------------------------------|---|

**· Explosion limits:**

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | 0.9 Vol %       |
| <b>Upper:</b> | Not determined. |

|                                  |        |
|----------------------------------|--------|
| <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 determined. |

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|   |  |
|---|--|
| · <b>Evaporation rate</b>                           | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b>    | Fully miscible                             |
| · <b>Segregation coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b><br>dynamic:                     | Not determined.                            |
| kinematic:  | Not determined.                            |
| · <b>Solvent content:</b><br>Organic solvents:      | 10.0 %                                     |
| Water:  | 55.0 %                                     |
| · <b>Solids content:</b>                            | 35.0 %                                     |
| · <b>Other information</b>                          | 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:**

**Proprietary carbohydrate**

Oral LD50 29700 mg/kg (rat)

**67-68-5 dimethyl sulfoxide**

Oral LD50 14500 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.*
- **Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

**14 Transport information**

- |   |  |
|---|--|
| · <b>UN-Number</b><br>· <b>DOT, ADR, ADN, IMDG, IATA</b>                                    | Void   |
| · <b>UN proper shipping name</b><br>· <b>DOT, ADR, ADN, IMDG, IATA</b>                      | Void   |
| · <b>Transport hazard class(es)</b><br>· <b>DOT, ADR, ADN, IMDG, IATA</b><br>· <b>Class</b> | Void   |
| · <b>Packing group</b><br>· <b>DOT, ADR, IMDG, IATA</b>                                     | Void   |
| · <b>Environmental hazards:</b><br>· <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. |

**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

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|           |                                 |
|-----------|---------------------------------|
| 56-81-5   | glycerol                        |
| 67-68-5   | dimethyl sulfoxide              |
| 7447-40-7 | potassium chloride              |
| 77-86-1   | Tris(hydroxymethyl)aminomethane |
| 7786-30-3 | Magnesium Chloride              |

· **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.

· **National regulations**

· **Technical instructions (air):**

| Class | Share in % |
|-------|------------|
| NK    | 10-20      |

· **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.**