



04/20/2007

## Kit Components

Product code	Description
<b>1708884</b>	<b>iQ™ Sybr Green Supermix Kit</b>

Components:

1708880	iQ™ SYBR Green Supermix
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## Material Safety Data Sheet

Printing date 04/20/2007

Reviewed on 04/18/2007

*	<b>1 Identification of substance:</b>
	<ul style="list-style-type: none"> <li><b>Product details:</b></li> </ul>
	<ul style="list-style-type: none"> <li><b>Trade name:</b> <u>iQ™ SYBR Green Supermix</u></li> </ul>
	<ul style="list-style-type: none"> <li><b>Catalog or product number:</b> 1708880, 1708882, 1708880S, 1708885, 10003253, 1725006</li> </ul>
	<ul style="list-style-type: none"> <li><b>Application of the substance / the preparation</b> Laboratory chemicals</li> </ul>
	<ul style="list-style-type: none"> <li><b>Manufacturer/Supplier:</b></li> </ul>
	<p>Bio-Rad Laboratories, Life Science Group  2000 Alfred Nobel Drive  Hercules, California 94547 (510)741-1000</p>
	<ul style="list-style-type: none"> <li><b>Information department:</b> Technical services, customer support.</li> </ul>
	<ul style="list-style-type: none"> <li><b>Emergency information:</b></li> </ul>
	<p>1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.  510-741-1000</p>

*	<b>2 Composition/Information on components:</b>												
	<ul style="list-style-type: none"> <li><b>Chemical characterization</b></li> </ul>												
	<ul style="list-style-type: none"> <li><b>Description:</b> Mixture of the substances listed below with non-hazardous additions.</li> </ul>												
	<ul style="list-style-type: none"> <li><b>Listing of dangerous and non-hazardous components:</b></li> </ul>												
	<table border="1"> <tr> <td>CAS: 7732-18-5 EINECS: 231-791-2 RTECS: ZC 0110000</td><td>water</td><td>50-100%</td></tr> <tr> <td>CAS: 56-81-5 EINECS: 200-289-5 RTECS: MA 8050000</td><td>Proprietary carbohydrate glycerol</td><td>10-20% 5-10%</td></tr> <tr> <td>CAS: 67-68-5 EINECS: 200-664-3 RTECS: PV 6210000</td><td>dimethyl sulfoxide</td><td>5-10%</td></tr> <tr> <td></td><td>Proprietary Non Ionic Detergent</td><td><i>Xi; R 41</i> 2.5-5%</td></tr> </table>	CAS: 7732-18-5 EINECS: 231-791-2 RTECS: ZC 0110000	water	50-100%	CAS: 56-81-5 EINECS: 200-289-5 RTECS: MA 8050000	Proprietary carbohydrate glycerol	10-20% 5-10%	CAS: 67-68-5 EINECS: 200-664-3 RTECS: PV 6210000	dimethyl sulfoxide	5-10%		Proprietary Non Ionic Detergent	<i>Xi; R 41</i> 2.5-5%
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	Proprietary Non Ionic Detergent	<i>Xi; R 41</i> 2.5-5%											
	<ul style="list-style-type: none"> <li><b>Additional information</b> For the wording of the listed risk phrases refer to section 16.</li> </ul>												

*	<b>3 Hazards identification</b>
	<ul style="list-style-type: none"> <li><b>Emergency overview:</b> not applicable</li> </ul>
	<ul style="list-style-type: none"> <li><b>Information pertaining to particular dangers for man and environment</b></li> </ul>
	<p>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.</p>
	<ul style="list-style-type: none"> <li><b>Classification system</b></li> </ul>
	<p>The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.</p>
	<ul style="list-style-type: none"> <li><b>OSHA hazard ratings</b></li> </ul>
	<ul style="list-style-type: none"> <li><b>Health</b> 0: Minimal Hazard.</li> </ul>
	<ul style="list-style-type: none"> <li><b>Fire</b> 0: Minimal hazard.</li> </ul>
	<ul style="list-style-type: none"> <li><b>Reactivity</b> 0: Minimal hazard.</li> </ul>

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**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 Fire fighting measures**

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **Protective equipment:** No special measures required.

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**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.

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**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 and 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:**

**56-81-5 glycerol**

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

**67-68-5 dimethyl sulfoxide**

WEEL ()	250 ppm
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- **Additional information:** The lists that were valid during the creation were used as basis.

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- **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

<b>9 Physical and chemical properties:</b>	
<ul style="list-style-type: none"> <li>· <b>General Information</b></li> </ul>	
<b>Form:</b>	liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<ul style="list-style-type: none"> <li>· <b>Change in condition</b></li> </ul>	
<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C
<b>· Flash point:</b>	> 100°C
<b>· Ignition temperature:</b>	270.0°C
<b>· Auto igniting:</b>	Product is not selfigniting.
<b>· Danger of explosion:</b>	Product does not present an explosion hazard.
<ul style="list-style-type: none"> <li>· <b>Explosion limits:</b></li> </ul>	
<b>Lower:</b>	0.9 Vol %
<b>· Vapor pressure at 20°C:</b>	23.0 hPa
<b>· Density:</b>	Not determined
<ul style="list-style-type: none"> <li>· <b>Solubility in / Miscibility with</b></li> </ul>	
<b>Water:</b>	Fully miscible
<b>· pH-value at 20°C:</b>	8.4
<ul style="list-style-type: none"> <li>· <b>Solvent content:</b></li> </ul>	
<b>· Organic solvents:</b>	10.0 %
<b>· Water:</b>	55.0 %
<b>· Solids content:</b>	35.0 %

<b>10 Stability and reactivity</b>	
· <b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used according to specifications.
· <b>Dangerous reactions</b>	No dangerous reactions known
· <b>Dangerous products of decomposition:</b>	No dangerous decomposition products known

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**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:****· 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.**· 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:** -

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

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## 15 Regulations

**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
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

**Cancerogenity 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.

**Markings 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.

**National regulations**

Class	Share in %
NK	10-20

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- **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.**

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