



04/20/2007

## Kit Components

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

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

Printing date 04/20/2007

Reviewed on 04/18/2007

**1 Identification of substance:**

- **Product details:**
- **Trade name:** iQ™ SYBR Green Supermix
- **Catalog or product number:** 1708880, 1708882, 1708880S, 1708885, 10003253, 1725006
- **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 components:**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with non-hazardous additions.

· **Listing of dangerous and non-hazardous components:**

CAS: 7732-18-5 EINECS: 231-791-2 RTECS: ZC 0110000	water		50-100%
	Proprietary carbohydrate		10-20%
CAS: 56-81-5 EINECS: 200-289-5 RTECS: MA 8050000	glycerol		5-10%
CAS: 67-68-5 EINECS: 200-664-3 RTECS: PV 6210000	dimethyl sulfoxide		5-10%
	Proprietary Non Ionic Detergent	Xi; R 41	2.5-5%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

**3 Hazards identification**

- **Emergency overview:** not applicable
- **Information pertaining to particular dangers for man 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.
- **OSHA hazard ratings**
- **Health** 0: Minimal Hazard.
- **Fire** 0: Minimal hazard.
- **Reactivity** 0: Minimal hazard.

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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.

\* **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 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

**9 Physical and chemical properties:**

· **General Information**

<b>Form:</b>	liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless

· **Change in condition**

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

· **Flash point:** > 100°C

· **Ignition temperature:** 270.0°C

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

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

· **Explosion limits:**

**Lower:** 0.9 Vol %

· **Vapor pressure at 20°C:** 23.0 hPa

· **Density:** Not determined

· **Solubility in / Miscibility with**

**Water:** Fully miscible

· **pH-value at 20°C:** 8.4

· **Solvent content:**

· **Organic solvents:** 10.0 %

· **Water:** 55.0 %

· **Solids content:** 35.0 %

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions:** No dangerous reactions known
- **Dangerous products of decomposition:** 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)
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**67-68-5 dimethyl sulfoxide**

Oral	LD50	14500 mg/kg (rat)
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· **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.

**15 Regulations**

· **SARA (Superfund Amendants 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
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67-68-5	dimethyl sulfoxide
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7447-40-7	potassium chloride
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77-86-1	Tris(hydroxymethyl)aminomethane
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7786-30-3	Magnesium Chloride
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· **Carcinogeny 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.**

USA