



Material Safety Data Sheet

Printing date 07/28/2012

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Reviewed on 07/17/2012

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

- Product identifier
- Trade name: Fixative Enhancer Concentrate
- Catalog or product number: 1610461, 1610461EDU
- Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.
- 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
sg_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 Hazards identification

Classification of the substance or mixture

Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable

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).

Safety phrases:
60 This material and its container must be disposed of as hazardous waste.

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.

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Listing of dangerous and non-hazardous components:

56-81-5) glycerol	35-50%
7732-18-5) water	35-50%

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

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 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents Use fire fighting measures that suit the environment.
- 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 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.
- 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.

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- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

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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:

56-81-5 glycerol

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

- **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:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

• **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:	Not determined.
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Change in condition	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined

Flash point:	> 100°C
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Flammability (solid, gaseous)	Not applicable.
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Ignition temperature:	400°C
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- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**

Lower:	0.9 Vol %
Upper:	Not determined.
- **Vapor pressure at 20°C:** 23 hPa
- **Density at 20°C:** 1.11504 g/cm³
- **Relative density**
- **Vapour density**
- **Evaporation rate**
- **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:	50.0 %
Water:	50.0 %
- **Other information**

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:

• 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:

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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.

• **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.

• **Target organs:** Not applicable.

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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:** Generally not hazardous for water.

• **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

• **Transport hazard class(es)**

• **DOT, ADR, ADN, IMDG, IATA**

Void

• **Class**

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• **Packing group**

Void

• **Environmental hazards:**

No

• **Marine pollutant:**

Not applicable.

• **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.

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):**

None of the ingredients is listed.

• **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

• **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.

• **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

• **National regulations**

• **Technical instructions (air):**

Class	Share in %
NK	35-50

• **Water hazard class:** Generally not hazardous for water.

• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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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