

## Material Safety Data Sheet

Printing date 08/01/2011

Reviewed on 09/09/2010


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

- **Product identifier**
- **Trade name:** Mono Labeling Diluent (B3)
- **Catalog or product number:** 4306660
- **CAS Number:**  
64-19-7
- **EC number:**  
200-580-7
- **Index number:**  
607-002-00-6
- **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:**  
64-19-7 acetic acid, glacial
- **Identification number(s):**
- **EC number:** 200-580-7
- **Index number:** 607-002-00-6
- **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**  
Corrosive.  
Flammable.  
May cause irreversible eye damage.
-  C; Corrosive
- **R35:** Causes severe burns.
- **R10:** Flammable.
- **Classification system:**  
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:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

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· **Code letter and hazard designation of product:**

C Corrosive

· **Risk phrases:**

10 Flammable.

35 Causes severe burns.

· **Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

45 In case of accident or if you feel unwell, seek medical advice immediately.

**4 First aid measures**· **General information** Immediately remove any clothing soiled by the product.· **After inhalation** In case of unconsciousness place patient stably in side position for transportation.· **After skin contact** Immediately wash with water and soap and rinse thoroughly.· **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.· **After swallowing** Drink copious amounts of water and provide fresh air. Immediately call a doctor.**5 Firefighting measures**· **Suitable extinguishing agents**CO<sub>2</sub>, 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.

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).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **Reference to other sections**

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.

Ensure good ventilation/exhaustion at the workplace.

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Prevent formation of aerosols.

No special precautions are necessary if used correctly.

**Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

**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:** Keep receptacle tightly sealed.

**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.

**Components with limit values that require monitoring at the workplace:**

**64-19-7 acetic acid, glacial**

PEL 25 mg/m<sup>3</sup>, 10 ppm

REL Short-term value: 37 mg/m<sup>3</sup>, 15 ppm

Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

TLV Short-term value: 37 mg/m<sup>3</sup>, 15 ppm

Long-term value: 25 mg/m<sup>3</sup>, 10 ppm

**Additional information:** The lists that were valid during the creation were used as basis.

**Personal protective equipment**

**General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**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

Tightly sealed goggles.

**9 Physical and chemical properties**

**General Information**

**Appearance:**

**Form:** liquid

**Color:** Colorless

**Odor:** Pungent

**pH-value at 20°C:** 2.5

**Change in condition**

**Melting point/Melting range:** 16.6°C

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<b>Boiling point/Boiling range:</b> 118°C	
· <b>Flash point:</b>	21 - 55°C
· <b>Ignition temperature:</b>	485°C
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	4 Vol %
<b>Upper:</b>	17 Vol %
· <b>Vapor pressure at 20°C:</b>	16 hPa
· <b>Density at 20°C:</b>	1.05 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Fully miscible
<b>Organic solvents:</b>	100.0 %
· <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:**

**64-19-7 acetic acid, glacial**

Oral	LD50	3310 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:** Strong caustic effect on skin and mucous membranes.

· **on the eye:** Strong caustic effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Target organs:** Skin.

**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.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

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Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
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**

- **UN-Number**
  - **DOT**
  - **ADR, IMDG, IATA**
- UN2789  
2789
- 
- **UN proper shipping name**
  - **DOT, IMDG, IATA**
  - **ADR**
- ACETIC ACID, GLACIAL  
2789 ACETIC ACID, GLACIAL  
Acetic acid, glacial
- 
- **Transport hazard class(es)**
  - **DOT, IMDG, IATA**
  - **Class**
  - **Label**
- 8 Corrosive substances.  
8+3
- 
- **ADR**
  - **Class**
  - **Label**
- 8 Corrosive substances  
8
- 
- **Packing group**
  - **DOT, ADR, IMDG, IATA**
- II
- 
- **Environmental hazards:**
  - **Marine pollutant:**
- No
- 
- **Special precautions for user**
  - **Danger code (Kemler):**
  - **EMS Number:**
- Warning: Corrosive substances  
80  
F-E,S-C
- 
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
- Not applicable.

USA

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**15 Regulatory information**

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**

· **Section 302/304 (40CFR355.30 / 40CFR355.40):**

Substance not listed.

· **Section 313 (40CFR372.65):**

Substance is not listed.

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

Substance is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **IARC (International Agency for Research on Cancer)**

Substance is not listed.

· **NTP (National Toxicology Program)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **MAK (German Maximum Workplace Concentration)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

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

Substance is not listed.

· **Markings according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**

C Corrosive

· **Risk phrases:**

10 Flammable.

35 Causes severe burns.

· **Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

45 In case of accident or if you feel unwell, seek medical advice immediately.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
II	100.0

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· **Water hazard class:** Water hazard class 1 (Assessment by list): 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.**