

Material Safety Data Sheet

Printing date 10/13/2003

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- **1 Identification of substance:**

- **Product details:**

- **Trade name: TEMED**

- **Catalog or product number:**

1610801, 1610800, 9700106, 1610800EDU, 1610801EDU

- **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.

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- **Health** 2: Moderate hazard.
- **Fire** 3: Serious hazard.

- **4 First aid measures**

- **General information**

Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. 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**

Immediately call a doctor. Drink copious amounts of water and provide fresh air. Immediately call a doctor.

- **Information for doctor**

- **The following symptoms may occur:** Breathing difficulty

- **5 Fire fighting measures**

- **Suitable extinguishing agents**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Protective equipment:** Mount respiratory protective device.

- **6 Accidental release measures**

- **Person-related safety precautions:**

Wear protective equipment (See section 8). Keep unprotected persons away.

- **Measures for environmental protection:**

Prevent seepage into sewage system, workpits and cellars. Dilute with plenty of water.

- **Measures for cleaning/collecting:**

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.

- **7 Handling and storage**

- **Handling**

- **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

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:**

Store in a cool location.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:**

_1 1 4 Tm (m96 D/W :v1 1 Tf 7 0 0 7 40 Not)Tj 0 -1.2 TD (required

- **9 Physical and chemical properties:**

- **General Information**

- **Form:** liquid

- **Color:** Light yellow

- **Odor:** Amine-like

| | <u>Value/Range</u> | <u>Unit</u> | <u>Method</u> |
|--|--------------------|-------------|---------------|
|--|--------------------|-------------|---------------|

- **Change in condition**

- **Melting point/Melting range:** undetermined

- **Boiling point/Boiling range:** 118 ° C

- **Flash point:** <= 21 ° C

- **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

- **Lower:** 0.98 Vol %

- **Upper:** 9.08 Vol %

- **Density:** at 20 ° C 0.78 g/cm³

- **Solubility in / Miscibility with**

- **Water:** Fully miscible

- **Organic solvents:** 100.0 %

- **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

- **11 Toxicological information**

- **Acute toxicity:**

LD/LC50 values for hazardous components per OSHA criteria:

110-18-9 N,N,N',N'-tetramethylethylenediamine

Oral: LD50: 1580 mg/kg (rat)

Dermal: LD50: 5390 mg/kg (rbt)

- **Primary irritant effect:**

- **on the skin:** 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.

Respiratory tract.

• 12 Ecological information:                   

                                     

- **Item:** 3b
- **Danger code (Kemler):** 33
- **UN-Number:** 2372
- **Label** 3
- **Description of goods:** 1,2-Di-(dimethylamino) ethane
- **Maritime transport IMDG:**
- **IMDG Class:** 3.2
- **Page:** 3207
- **UN Number:** 2372
- **Packing group:** II
- **EMS Number:** F-E, S-D
- **MFAG:** 320
- **Marine pollutant:** No
- **Proper shipping name:** 1,2-Di-(dimethylamino) ethane
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** 3
- **UN/ID Number:** 2372
- **Packing group:** II
- **Proper shipping name:** 1,2-Di-(dimethylamino) ethane

- **15 Regulations**

- **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.

- **California Proposition 65:**

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity:

Substance is not listed.

- **Carcinogenicity 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:**

- **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