

**Material Safety Data Sheet**

Printing date 04/05/2010

Reviewed on 10/21/2009

**1 Identification of substance:**

- **Product details:**
- **Trade name:** Reagent D
- **Catalog or product number:** 194-5361D, 194-5379
- **Application of the substance / the preparation** *In-vitro laboratory reagent or component*
- **Manufacturer/Supplier:**  
*Bio-Rad Laboratories, Diagnostic Group  
 4000 Alfred Nobel Drive  
 Hercules, California 94547* 1(510)724-7000
- **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.*

**2 Composition/Information on components:**

- **Chemical characterization:**
- **CAS No. Description:**  
*7732-18-5 water*
- **Identification number(s):**
- **EINECS Number:** *231-791-2*
- **Additional information:** *For the wording of the listed risk phrases refer to section 15.*
- **Chemical characterization**

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

7558-79-4	disodium hydrogenorthophosphate	Xn; R 20/21	1.0-2.5%
54-64-8	Thiomersal	T+; R 26/27/28-33	0.1-1.0%

**3 Hazards identification**

- **Emergency overview:**  
*Irritant to skin.  
 Xn Harmful*
- **Routes of exposure:**  
*Ingestion  
 Inhalation  
 Skin*
- **Information pertaining to particular dangers for man and environment**  
*R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.*
- **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.*
- **NFPA ratings (scale 0-4)**  
*Health = 2  
 Fire = 0  
 Reactivity = 0*

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\* **4 First aid measures**· **General information**

Seek immediate medical advice.

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** Seek immediate medical advice.· **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.· **After swallowing**

Rinse mouth with water. Seek medical attention and appropriate follow-up.

Immediately call a doctor.

· **Information for doctor**· **The following symptoms may occur:**

Eye irritation

Skin irritation

Breathing difficulty

\* **5 Fire fighting measures**· **Suitable extinguishing agents**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Protective equipment:**

Wear fully protective suit.

Mount respiratory protective device.

\* **6 Accidental release measures**· **Person-related safety precautions:** Wear protective clothing.· **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).

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:** 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.

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**Further information about storage conditions:**

Store in a cool place.  
Keep receptacle tightly sealed.

**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:**

**54-64-8 Thiomersal**

REL (United States)	Short-term value: C 0.1 mg/m <sup>3</sup>
TLV (United States)	0.1 mg/m <sup>3</sup>
	Skin; BEI

**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.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**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

**Body protection:** Protective work clothing.

**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:** 0°C  
**Boiling point/Boiling range:** 100°C

**Flash point:** Not applicable

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

**Vapor pressure at 20°C:** 23 hPa

**Density at 20°C:** 1 g/cm<sup>3</sup>

**Solubility in / Miscibility with**

**Water:** Fully miscible

**pH-value at 20°C:** < 8

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· <b>Organic solvents:</b>	0.0 %
· <b>Water:</b>	97.6 %
· <b>Solids content:</b>	2.4 %

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:**
- **Dangerous reactions:** No dangerous reactions known
- **Dangerous products of decomposition:** Poisonous gases/vapors

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effects known.
- **Target organs:**  
Skin.  
Respiratory tract.

**12 Ecological information:**

- **Additional 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:** Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- **Maritime transport IMDG:**
- **Marine pollutant:** No

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**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):**

54-64-8 Thiomersal

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

Substance is listed.

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

Substance is not listed.

· **NTP (National Toxicology Program)**

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:**

Xn Harmful

· **Risk phrases:**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

· **Safety phrases:**

25 Avoid contact with eyes.

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

36/37 Wear suitable protective clothing and gloves.

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

· **National regulations**· **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.**