

## Material Safety Data Sheet

Printing date 05/17/2008

Reviewed on 01/09/2008

## 1 Identification of substance:

- **Product details:**
- **Trade name:** DNA Standard Lambda Hind III Digest
- **Catalog or product number:** 9702941
- **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:**
- **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 16.

## 3 Hazards identification

- **Emergency overview:** not applicable
- **Information pertaining to particular dangers for man and environment:** not applicable
- **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.

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

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- **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:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **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

<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	0°C
<b>Boiling point/Boiling range:</b>	100°C

<b>Flash point:</b>	Not applicable
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<b>Danger of explosion:</b>	Product does not present an explosion hazard.
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<b>Vapor pressure at 20°C:</b>	23 hPa
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<b>Density at 20°C:</b>	1 g/cm <sup>3</sup>
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· Solubility in / Miscibility with Water:	Fully miscible
· pH-value at 20°C:	8
· Organic solvents:	0.0 %
· Water:	99.1 %
· Solids content:	0.9 %

**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:
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritant effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - 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.
  - The substance is not subject to classification according to the latest version of the EU lists.
  - Target organs: Not applicable.

**12 Ecological information:**

- General notes: Generally not hazardous for water.

**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: -

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- 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: -
- UN "Model Regulation": -
- 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):  
Substance not listed.

· Section 313 (40CFR372.65):  
Substance is not listed.

· TSCA (Toxic Substances Control Act):  
7732-18-5 water  
7647-14-5 sodium chloride  
77-86-1 Tris(hydroxymethyl)aminomethane  
27565-41-9 (R\*,R\*)-(±)-1,4-dimercaptobutane-2,3-diol

- Cancerogenity 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:
  - Observe the general safety regulations when handling chemicals
  - The substance is not subject to classification according to EU lists and other sources of literature known to us.
  - The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).

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- **Safety phrases:**  
60 This material and its container must be disposed of as hazardous waste.
- **National regulations**
- **Water hazard class:** Generally not 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

- **Abbreviations and acronyms:**  
ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Reglement internationale concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)
- **\* Data compared to the previous version altered.**

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