

**1 Identification**

- Product identifier
- Trade name: **Suspect 2 DNA, Lyophilized**
- Catalog or product number: 9703818, 10040684
- Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available
- Application of the substance / the mixture 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  
tsq\_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 Hazard(s) identification**

- Classification of the substance or mixture  
Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2A H319 Causes serious eye irritation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC  
Irritant to skin.  
Irritant to skin.  
Xn; Harmful
- R22: Harmful if swallowed.
- Xn; Irritant
- R36/38: Irritating to eyes and skin.
- Information concerning particular hazards for human and environment:  
The product has 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
- Labeling 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:



Xn Harmful

- Hazard-determining components of labeling:  
Tris(hydroxymethyl)aminomethane
- Risk phrases:  
22 Harmful if swallowed.  
36/38 Irritating to eyes and skin.
- Safety phrases:  
26 In case of contact with eyes, those 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.
- Additional information: Contact with acids may cause release of toxic gases
- Emergency overview:  
Routes of exposure:  
Ingestion  
Skin
- Other hazards
- Results of PBT and vPvB assessment  
PBT: Not applicable.  
vPvB: Not applicable.

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**3 Composition/information on ingredients**

Chemical characterization: Mixtures  
Description: Mixture of the substances listed below with non-hazardous additions.

Listing of dangerous and non-hazardous components:

Chemical name	Concentration	Hazard
7647-14-5 sodium chloride	35-50%	Xn R22 Xi R36
7791-18-6 magnesium chloride hexahydrate	5-10%	
27565-41-9 (R*, R*)-(±)-1,4-dimercaptobutane-2,3-diol	1.0-2.5%	Xn R20/21/22
9007-49-2 DNA from various sources	1.0-2.5%	

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  
Symptoms of poisoning may even occur after several hours, therefore medical observation for at least 48 hours after the accident.
- 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.

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- After eye contact Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. (Contd. of page 2)
- After swallowing Immediately call a 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 Fire-fighting measures**

- Extinguishing media
- 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.
- Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

**6 Accidental release measures**

- Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up: Dispose contaminated material as waste according to item 13.
- Reference to other sections  
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**

- Precautions for safe handling No special precautions are necessary if used correctly.
- 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.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Specific end user(s) No further relevant information available.

**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:  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists that were valid during the creation were used as basis.

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- Exposure controls
- 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.
- 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**

- Information on basic physical and chemical properties
- General Information
- Appearance:  
Form: Solid  
Color: Whilsh  
Odor: Odorless  
Odour threshold: Not determined.
- pH-value: Not applicable.
- Change in condition
- Melting point/Melting range: undetermined
- Boiling point/Boiling range: undetermined
- Flash point: Not applicable
- Flammability (solid, gaseous) Not determined.
- Ignition temperature: Not determined.
- Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:  
Lower: Not determined.  
Upper: Not determined.
- Vapor pressure: Not applicable.
- Density: Not determined
- Relative density: Not determined.
- Vapour density: Not applicable.
- Evaporation rate: Not applicable.

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Solubility in / Miscibility with Water:	Fully miscible
Partition coefficient (n-octanol/water):	Not determined.
Viscosity: dynamic:	Not applicable.
Kinematic:	Not applicable.
Solvent content:	0.0 %
Organic solvents:	No further relevant information available.
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:
  - LD/LC50 values for hazardous components per OSHA criteria:
    - 77-86-1 Tris(hydroxymethyl)aminomethane
    - Oral LD50: 2900 mg/kg (rat)
- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Irritant effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
    - Harmful Irritant
- 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.
  - OSHA-Ca (Occupational Safety & Health Administration)
    - None of the ingredients is listed.

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Target organs:	Skin, Eye.
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**12 Ecological information**

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- 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 packaging:
  - Recommendation: Disposal must be made according to official regulations.

**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		Void
Packing group	DOT, ADR, IMDG, IATA	Void
Environmental hazards:		No
Marine pollutant:		No
Special precautions for user		Not applicable.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code		Not applicable.

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UN "Model Regulation":

**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):

77-86-1 Tris(hydroxymethyl)aminomethane

7647-14-5 sodium chloride

27565-41-9 (R\*, R\*)-1,4-dimercapbutane-2,3-diol

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

National regulations

Water hazard class: Generally not hazardous for water.

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

**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 SDS: 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

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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)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

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IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Skin Irr.: Skin corrosion/irritation, Hazard Category 2  
Eye Irr.: 2: Skin corrosion/irritation, Hazard Category 2A  
\* Data compared to the previous version altered.

USA