

1 Identification

- Product identifier
- Trade name: **Suspect 4 DNA, Lyophilized**
- Catalog or product number: 9703820, 10040686
- 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
tsg_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 eyes.
- Irritant to skin.
- Irritant to respiratory system and skin.
- Xn: Harmful
- R22: Harmful if swallowed.
- Xi: 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:
28 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.
- 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.

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:

	Xn R22	Xi R36	Xi R36/38	5-10%
7647-14-5 sodium chloride				
7791-18-6 magnesium chloride hexahydrate				
27565-41-9 [R ⁺ , R ⁻]-[1,4-dimercapto]butane-2,3-diol				
9007-49-2 DNA from various sources				
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.
- 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
- CO₂, 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 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.
- 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:
- Color:
- Odor:
- Odour threshold:
- pH-value:
- Change in condition
- Melting point/Boiling range:
- Boiling point/Boiling range:
- Flash point:
- Flammability (solid, gaseous)
- Ignition temperature:
- Decomposition temperature:
- Auto-igniting:
- Danger of explosion:
- Explosion limits:
- Lower:
- Upper:
- Vapor pressure:
- Density:
- Relative density
- Vapour density
- Evaporation rate

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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 ₅₀ values for hazardous components per OSHA criteria:
77-86-1 Tris(hydroxymethyl)aminomethane
Oral LD ₅₀ 5800 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:	

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 packagings:
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	
Packing group	
DOT, ADR, IMDG, IATA	Void
Environmental hazards:	
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.

MOSH-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)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation

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IA17A: 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)
GHS: Global Harmonized System, 69 percent
LD50: lethal dose 50
Skin Irr. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irr. 2A: Serious eye damage/irritation, Hazard Category 2A
* Data compared to the previous version altered.

USA