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Manufacturer [Zymo Research](#) (/suppliers/zymo-research?compID=2895) | Model: **D4069**

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Quick-DNA™ Universal Kit



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## Product Overview



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## Quick-DNA™ Universal Kit

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Safety Data Sheet acc. to OSHA HCS

Printing date 01/03/2017

Reviewed on 12/07/2015

1 Identification

- Product identifier
- Trade name: **Proteinase K**
- Article number: D3001-2-5, D3001-2-20, D3001-2-F
- Application of the substance / the mixture: Laboratory Reagent
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Zymo Research Corp. 17062 Murphy Ave. Irvine, CA 92614 USA
- Phone: 1-949-679-1190 or 1-888-882-9682 sds@zymoresearch.com
- Information department: Product safety department
- Emergency telephone number: During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

2 Hazard(s) identification

Classification of the substance or mixture The product is not classified according to the Globally Harmonized System (GHS).

- Label elements
- GHS label elements: Void
- Hazard pictograms: Void
- Signal word: Void
- Hazard statements: Void
- Classification system: Void
- NFPA ratings (scale 0 - 4)

Health	= 0
Fire	= 0
Reactivity	= 0

HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

(Contd. on page 2)



Safety Data Sheet acc. to OSHA HCS

Printing date 01/03/2017

Reviewed on 12/07/2015

Trade name: **Proteinase K**

(Contd. of page 1)

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components: Void

4 First-aid measures

- Description of 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. Then consult a doctor.
- After swallowing: Do not induce vomiting; immediately call for medical help.
- Information for 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.
- Advice for firefighters
- Protective equipment: Wear protective clothing.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Wear protective clothing.
  - Environmental precautions: Dilute with plenty of water.
  - Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - 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

- Handling:
- Precautions for safe handling: No special measures required.
- Information about protection against explosions and fires: No special measures required.

(Contd. on page 3)

Trade name: **Proteinase K**

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

(Contd. of page 2)

**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.
- **Exposure controls**
- **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:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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:** Goggles recommended during refilling.

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
- **Form:** Crystalline powder
- **Color:** Whitish
- **Odor:** Odorless
- **Odor threshold:** Not determined.

(Contd. on page 4)

Trade name: **Proteinase K**

· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	Undetermined.
· <b>Melting point/Melting range:</b>	Undetermined.
· <b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	Not determined.
· <b>Decomposition temperature:</b>	Product is not selfigniting.
· <b>Auto igniting:</b>	Product does not present an explosion hazard.
· <b>Danger of explosion:</b>	
· <b>Explosion limits:</b>	
· <b>Lower:</b>	Not Applicable
· <b>Upper:</b>	Not Applicable
· <b>Vapor pressure:</b>	Not determined.
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
· <b>Dynamic:</b>	Not determined.
· <b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	0.0 %
· <b>Organic solvents:</b>	0.0 g/l / 0.00 lb/gl
· <b>POC content:</b>	No further relevant information available.
· <b>Other information</b>	

(Contd. of page 3)

**10 Stability and reactivity**

- **Reactivity:** No further relevant information available.
- **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.

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Safety Data Sheet  
acc. to OSHA HCS

Printing date 01/03/2017

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Trade name: **Proteinase K**

· **Hazardous decomposition products:** No dangerous decomposition products known.

(Contd. of page 4)

**11 Toxicological information**

- **Information on toxicological effects**
  - **Acute toxicity:**
  - **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
- The product is not subject to classification according to internally approved calculation methods for preparations: 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.
- **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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**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:** Smaller quantities can be disposed of with household waste.

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Safety Data Sheet  
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Printing date 01/03/2017

Reviewed on 12/07/2015

Trade name: **Proteinase K**

- **Uncleaned packaging:**
- **Recommendation:**
- Dispose of container in accordance with local/regional/national and international recommendations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

(Contd. of page 5)

**14 Transport information**

- **UN-Number**
- **DOT, ADN, IMDG, IATA**
- not regulated
- **UN proper shipping name**
- **DOT, ADN, IMDG, IATA**
- not regulated
- **Transport hazard class(es)**
- **DOT, ADN, IMDG, IATA**
- not regulated
- **Packing group**
- **DOT, IMDG, IATA**
- not regulated
- **Environmental hazards:**
- Not applicable.
- **Special precautions for user**
- Not applicable.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
- Not applicable.
- **UN "Model Regulation":**
- not regulated

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):**
- None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
- None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**
- None of the ingredients is listed.
- **Proposition 65**
- **Chemicals known to cause cancer:**
- None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for females:**
- None of the ingredients is listed.

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Trade name: **Proteinase K**

- (Contd. of page 6)
- **Chemicals known to cause reproductive toxicity for males:**  
None of the ingredients is listed.
  - **Chemicals known to cause developmental toxicity:**  
None of the ingredients is listed.
  - **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.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**  
None of the ingredients is listed.
  - **GHS label elements** Void
  - **Hazard pictograms** Void
  - **Signal word** Void
  - **Hazard statements** Void
  - **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:**

Zymo Research Corp.  
Safety Department  
17062 Murphy Ave.  
Irvine, CA 92614  
USA

Phone: 1-949-679-1190 or 1-888-882-9682

Contact: [sds@zymoresearch.com](mailto:sds@zymoresearch.com)

· **Date of preparation / last revision** 01/03/2017 / -

· **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
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- ELINCS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health

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Trade name: **Proteinase K**

TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit

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US



# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/03/2017

Reviewed on 11/13/2015

## 1 Identification

- **Product identifier**
- **Trade name:** Proteinase K Storage Buffer
- **Article number:** D3001-2-C, D3001-2-D, D3001-2-E
- **Application of the substance / the mixture / Laboratory Reagent**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
The product is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system:**
- **NEPA ratings (scale 0 - 4)**

HEALTH	0
FIRE	1
REACTIVITY	0

- **HMIS-ratings (scale 0 - 4)**

HEALTH	0
FIRE	1
REACTIVITY	0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 2)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 01/03/2017

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Trade name: Proteinase K Storage Buffer

(Contd. of page 1)

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· <b>Dangerous components:</b>	≤50%
CAS: 56-81-5	glycerol

## 4 First-aid measures

- **Description of 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. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for 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:** Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Wear protective clothing.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.**

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Trade name: **Proteinase K Storage Buffer**

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**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling:** No special measures required.
- **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:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **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:**

CAS: 56-81-5 glycerol

PEL Long-term value: 15\* 5\*\* mg/m<sup>3</sup> mist; \*total dust \*\*respirable fraction

TLV TLV withdrawn-insufficient data human occup. exp.

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **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:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation/ the chemical mixture.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

· **Material of gloves**

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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:** Goggles recommended during refilling.

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Trade name: **Proteinase K Storage Buffer**

(Contd. of page 3)

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: Clear

Odor: Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· **Melting point/Melting range:** Undetermined.

· **Boiling point/Boiling range:** 290 °C (554 °F)

· **Flash point:** 160 °C (320 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 400 °C (752 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

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

· **Explosion limits:**

· **Lower:** 0.9 Vol %

· **Upper:** 0.0 Vol %

· **Vapor pressure at 20 °C (68 °F):** 0.1 hPa

· **Density:** Not determined.

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

· **Evaporation rate:** Not determined.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· **Dynamic:** Not determined.

· **Kinematic:** Not determined.

· **Solvent content:**

· **Organic solvents:** 50.0 %

· **VOC content:** 0.0 g/l / 0.00 lb/gal

· **Other information:** No further relevant information available.

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Printing date 01/03/2017

Reviewed on 11/13/2015

Trade name: Proteinase K Storage Buffer

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**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **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:**
  - **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
  - **Sensitization:** No sensitizing effects known.
  - **Additional toxicological information:**
- The product is not subject to classification according to internally approved calculation methods for preparations: 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.
- **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.

**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
- Water hazard class 1 (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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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Printing date 01/03/2017

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Trade name: Proteinase K Storage Buffer

(Contd. of page 5)

- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
  - **Recommendation:** Smaller quantities can be disposed of with household waste.
  - **Uncleaned packagings:**
  - **Recommendation:**
- Dispose of container in accordance with local/regional/national and international recommendations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

- **UN-Number**
- **DOT, ADN, IMDG, IATA** not regulated
- **UN proper shipping name**
- **DOT, ADN, IMDG, IATA** not regulated
- **Transport hazard class(es)**
- **DOT, ADN, IMDG, IATA** not regulated
- **Class**
- **Packing group**
- **DOT, IMDG, IATA** not regulated
- **Environmental hazards:** Not applicable.
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** not regulated

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):**
- None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
- None of the ingredients is listed.

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### Safety Data Sheet acc. to OSHA HCS

Printing date 01/03/2017

Reviewed on 11/13/2015

Trade name: **Proteinase K Storage Buffer**

(Contd. of page 6)
· <b>TSCA (Toxic Substances Control Act):</b> All ingredients are listed.
· <b>Proposition 65</b>
· <b>Chemicals known to cause cancer:</b> None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for females:</b> None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for males:</b> None of the ingredients is listed.
· <b>Chemicals known to cause developmental toxicity:</b> None of the ingredients is listed.
· <b>Carcinogenic categories</b>
· <b>EPA (Environmental Protection Agency)</b> None of the ingredients is listed.
· <b>TLV (Threshold Limit Value established by ACGIH)</b> None of the ingredients is listed.
· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b> None of the ingredients is listed.
· <b>GHS label elements</b> Void
· <b>Hazard pictograms</b> Void
· <b>Signal word</b> Void
· <b>Hazard statements</b> Void
· <b>Chemical safety assessment:</b> 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:**

Zymo Research Corp.  
Safety Department  
17062 Murphy Ave.  
Irvine, CA 92614  
USA

Phone: 1-949-679-1190 or 1-888-882-9682

Contact: sds@zymoresearch.com

· **Date of preparation / last revision** 01/03/2017 / -

· **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  
IATA: International Air Transport Association

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ZYMO RESEARCH

The Beauty of Science is to Make Things Simple

### Safety Data Sheet acc. to OSHA HCS

Printing date 01/03/2017

Reviewed on 11/13/2015

Trade name: **Proteinase K Storage Buffer**

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ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

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Printing date 01/03/2017

Reviewed on 06/16/2016

**1 Identification**

- **Product identifier**
- **Trade name: BioFluid & Cell Buffer**
- **Article number:** D4068-1-12, D4068-1-25, D4068-1-45, D4068-1-2.50
- **Application of the substance / the mixture Laboratory Reagent**
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Zymo Research Corp.  
17062 Murphy Ave.  
Irvine, CA 92614  
USA  
Phone: 1-949-679-1190 or 1-888-882-9682  
sds@zymoresearch.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS05 Corrosion

- Skin Corr. 1C H314 Causes severe skin burns and eye damage.
- Eye Dam. 1 H318 Causes serious eye damage.



GHS07

- Acute Tox. 4 H302 Harmful if swallowed.
- Acute Tox. 4 H312 Harmful in contact with skin.
- Acute Tox. 4 H332 Harmful if inhaled.
- Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

**Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS05, GHS07
- **Signal word** Danger

**Hazard-determining components of labeling:**

- guanidinium thiocyanate
- **Hazard statements**  
Harmful if swallowed, in contact with skin or if inhaled.  
Causes severe skin burns and eye damage.  
Harmful to aquatic life with long lasting effects.

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Printing date 01/03/2017

Reviewed on 06/16/2016

**Trade name: BioFluid & Cell Buffer**

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- **Precautionary statements**  
Do not breathe dusts or mists.  
Wear protective gloves / protective clothing.  
Wear eye protection / face protection.  
Avoid release to the environment.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER/doctor.  
Specific treatment (see on this label).  
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Wash contaminated clothing before reuse.  
If swallowed: Rinse mouth. Do NOT induce vomiting.  
Take off contaminated clothing and wash it before reuse.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0-4)**  
Health = 3  
Fire = 0  
Reactivity = 0
- **HMIS-ratings (scale 0-4)**  
HEALTH 3  
FIRE 0  
REACTIVITY 0  
Health = 3  
Fire = 0  
Reactivity = 0
- **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 nonhazardous additions.

**Dangerous components:**

CAS: 593-84-0	guanidinium thiocyanate	≤70%
CAS: 9002-93-1	Polyethylene glycol octylphenol ether	≤10%

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**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 01/03/2017

Reviewed on 06/16/2016

Trade name: Bio Fluid & Cell Buffer

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**4 First-aid measures**

- **Description of 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 if trained to do so. 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:** Do not induce vomiting; immediately call for medical help.
- **Information for 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.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus for fighting fires involving this material

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Wear self-contained breathing apparatus for responding to non-incident release of this material in which there is the potential for inhalation of vapors, mists or sprays
- **Environmental precautions:**  
Wear protective equipment. Keep unprotected persons away.  
Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Do not allow to enter sewers/ surface or ground water.  
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.**
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

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US

**Safety Data Sheet**  
acc. to OSHA HCS

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Trade name: Bio Fluid & Cell Buffer

See Section 13 for disposal information.

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**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.
- **Prevent formation of aerosols.**
- **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:** No special requirements.
- **Information about storage in one common storage facility:** Do not store together with acids or strong oxidizers
- **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.
- **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.
- **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


The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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US

Trade name: **BioFluid & Cell Buffer**

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- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **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:**  
 Tightly sealed goggles

**9 Physical and chemical properties**

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

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Trade name: **BioFluid & Cell Buffer**

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- **Solubility in / Miscibility with Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**  
Dynamic: Not determined.  
Kinematic: Not determined.
- **Solvent content:** 0.0 %  
**POC content:** 0.0 g/l / 0.00 lb/gl
- **Solids content:** 70.0 %  
**Other information** No further relevant information available.

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **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 that are relevant for classification:**  
CAS: 593-84-0 guanidinium thiocyanate  
Oral | LD50 | 593 mg/kg (rat)
- **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:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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Printing date 01/03/2017

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Trade name: BioFluid & Cell Buffer

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- **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.

**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:**  
CAS: 593-84-0 guanidinium thiocyanate  
EC50 42.4 mg/kg (daphnia)
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Must not reach bodies of water or drainage ditch undiluted or unneutralized.  
Danger to drinking water if even small quantities leak into the ground.
- **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:**  
Dispose of contents in accordance with local/regional/national, and international recommendations.
- **Uncleaned packagings:**
- **Recommendation:**  
Dispose of container in accordance with local/regional/national and international recommendations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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US





Printing date 01/03/2017

Reviewed on 06/16/2016

Trade name: BioFluid & Cell Buffer

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**14 Transport information**

- **UN-Number**  
UN1760
- **DOT, IMDG, IATA**  
Corrosive liquids, n.o.s. (guanidinium thiocyanate)  
CORROSIVE LIQUID, N.O.S. (guanidinium thiocyanate)
- **UN proper shipping name**
- **DOT**
- **IMDG, IATA**
- **Transport hazard class(es)**
- **DOT**
- 
- **Class**  
8 Corrosive substances
- **Label**
- **IMDG, IATA**
- 
- **Class**  
8 Corrosive substances
- **Label**
- **Packing group**  
III
- **DOT, IMDG, IATA**
- **Environmental hazards:**  
Not applicable.
- **Special precautions for user**  
Warning: Corrosive substances
- **Danger code (Kemter):**  
80
- **EMS Number:**  
F-A, S-B
- **Stowage Category**  
A
- **Stowage Code**  
SW2 Clear of living quarters.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**  
Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations**  
On passenger aircraft/rail: 5 L  
On cargo aircraft only: 60 L
- **IMDG**
- **Limited quantities (LQ)**  
5L

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US