1 Identification

- **Product identifier**
- **Trade name**: Proteinase K
- **Article number**: D3001-2-A, D3001-2-B, 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
    - **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: 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.
- Protective Action Criteria for Chemicals
  - PAC-1:
    None of the ingredients is listed.
  - PAC-2:
    None of the ingredients is listed.
Trade name: Proteinase K

<table>
<thead>
<tr>
<th>PAC-3:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

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): Laboratory reagent

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.

(Contd. on page 4)
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.

· 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:
  Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

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

· 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.

· 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: 0.0 %
  VOC content: 0.0 g/l / 0.00 lb/gl

· Other information No further relevant information available.
### 12 Ecological Information

<table>
<thead>
<tr>
<th>Category</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chronic toxicity</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

### 11 Toxicological Information

<table>
<thead>
<tr>
<th>Effect</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>None of the ingredients is listed.</td>
</tr>
<tr>
<td>Chronic toxicity</td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

### 10 Stability and Reactivity

- **Chemical stability:** No further relevant information available.
- **Thermal decomposition:** No further relevant information available.
- **Decomposition conditions to be avoided:** No further relevant information available.
- **Possible hazards due to chemical reaction:** No further relevant information available.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No further relevant information available.
- **Acute toxicity:** None of the ingredients is listed.
- **Primary irritant effect:** None of the ingredients is listed.
- **Sensitizing effect:** None of the ingredients is listed.
- **Reactivity:** None of the ingredients is listed.
Safety Data Sheet
acc. to OSHA HCS

Printing date 07/12/2017
Reviewed on 12/07/2015

Trade name: Proteinase K

- 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**
  - DOT, ADN, IMDG, IATA: not regulated
- **Packing group**
  - DOT, ADN, 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 applicable.

### 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.
Trade name: Proteinase K

· 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.
  · 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
  · Date of preparation / last revision 07/12/2017 / -

· 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
  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)
Trade name: Proteinase K

NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vP/vB: 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

(Contd. of page 7)