

### 02/03/2015

### **Kit Components**

| Product code  | Description                             |
|---|---|
| 1662000<br>1662001<br>1662300<br>1662310<br>1662000EDU<br>1662001EDU<br>1662300EDU<br>1662310EDU<br>9704598 | DNA Extraction Module Kit               |
| Components:   |   |
| 1662002   | Lysis Buffer 50 mM Tris, 1% SDS, pH 8.0 |
| 10004336  | Powdered Protease + Salt                |



Printing date 02/03/2015 Reviewed on 01/21/2015

#### 1 Identification

- · Product identifier
- · Trade name: Lysis Buffer 50 mM Tris, 1% SDS, pH 8.0
- · Catalog or product number: 1662002, 1662002EDU, 9704569
- · 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

lsg\_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

The product is not classified according to the Globally Harmonized System (GHS).

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC not applicable
- · Information concerning particular hazards for human and environment:

The product does not have 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

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
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Additional information: Contact with acids may cause release of toxic gases
- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · **vPvB**: Not applicable.

#### 3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description:

7732-18-5 water

(Contd. on page 2)



Printing date 02/03/2015 Reviewed on 01/21/2015

Trade name: Lysis Buffer 50 mM Tris, 1% SDS, pH 8.0

(Contd. of page 1)

- · Identification number(s):
- · EC number: 231-791-2
- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with non-hazardous additions.

| · Listing of dangerous and non-hazardous components: |       |                        |          |
|--|-------|------------------------|----------|
| 151-21-3   |       | Xn R21/22<br>Xi R36/38 | 0.1-1.0% |
| 7732-18-5  | water |                        | 50-100%  |

· 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 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.
- · 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: No special measures required.

#### 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

No dangerous substances are released.

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- US



Printing date 02/03/2015 Reviewed on 01/21/2015

Trade name: Lysis Buffer 50 mM Tris, 1% SDS, pH 8.0

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#### 7 Handling and storage

- · 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: According to product specification
- 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:

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.

undetermined

- · 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: 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

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid
Color: Colorless

Odor: Odorless

Odour threshold: Not determined.

· pH-value at 20 °C:

Boiling point/Boiling range:

· Change in condition

Melting point/Melting range: 0 °C

· Flash point: Not applicable

· Flammability (solid, gaseous) Not applicable.

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Printing date 02/03/2015 Reviewed on 01/21/2015

Trade name: Lysis Buffer 50 mM Tris, 1% SDS, pH 8.0

|                                      |   | (Contd. of page |
|--------------------------------------|---|-----------------|
| 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 determined.                               |                 |
| Upper:                               | Not determined.                               |                 |
| Vapor pressure at 20 °C:             | 23 hPa  |                 |
| Density at 20 °C:                    | 0.99487 g/cm³                                 |                 |
| Relative density                     | Not determined.                               |                 |
| Vapour density                       | Not determined.                               |                 |
| Evaporation rate                     | Not determined.                               |                 |
| Solubility in / Miscibility with     |   |                 |
| Water:                               | Fully miscible                                |                 |
| Partition coefficient (n-octanol/wat | ter): Not determined.                         |                 |
| Viscosity:                           |   |                 |
| dynamic:                             | Not determined.                               |                 |
| kinematic:                           | Not determined.                               |                 |

No further relevant information available.

#### 10 Stability and reactivity

Organic solvents:

Solids content:

· Other information

· Reactivity

Water:

- · 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

0.0 %

98.9 %

1.1 %

#### 11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye:

No irritant effect.

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### Safety Data Sheet

Printing date 02/03/2015 Reviewed on 01/21/2015

Trade name: Lysis Buffer 50 mM Tris, 1% SDS, pH 8.0

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Irritant effect.

- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

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.

· Target organs: Not applicable.

### 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:

Water hazard class 1 (German Regulation) (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.
- · 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.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

- US



Printing date 02/03/2015 Reviewed on 01/21/2015

Trade name: Lysis Buffer 50 mM Tris, 1% SDS, pH 8.0

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| ransport information   |  |
|--|--|
| UN-Number<br>DOT, ADR, ADN, IMDG, IATA                             | Void   |
| UN proper shipping name<br>DOT, ADR, ADN, IMDG, IATA               | Void   |
| Transport hazard class(es)   |  |
| DOT, ADR, ADN, IMDG, IATA<br>Class                                 | Void   |
| Packing group<br>DOT, ADR, IMDG, IATA                              | Void   |
| Environmental hazards:<br>Marine pollutant:                        | No   |
| Special precautions for user                                       | Not applicable.                                      |
| Transport in bulk according to Annex II of MARPOL and the IBC Code | . <b>73/78</b><br>Not applicable.                    |
| Transport/Additional information:                                  | Not dangerous according to the above specifications. |
| UN "Model Regulation":   | -  |

### 15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · SARA (Superfund Amendents 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):

All ingredients are 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.

· 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: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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Trade name: Lysis Buffer 50 mM Tris, 1% SDS, pH 8.0

(Contd. of page 6)

· 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

- · Date of preparation / last revision 02/03/2015 / -
- · 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)

· \* Data compared to the previous version altered.

LICA



Printing date 02/03/2015 Reviewed on 01/27/2015

#### 1 Identification

- · Product identifier
- · Trade name: Powdered Protease + Salt
- · Catalog or product number: 10004336
- · 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

lsg\_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

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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 eves.

Irritant to skin.

Sensitizer by inhalation.

Irritant to respiratory system and skin.

Xn; Harmful

R42: May cause sensitization by inhalation.

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
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

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Reviewed on 01/27/2015 Printing date 02/03/2015

Trade name: Powdered Protease + Salt

(Contd. of page 1)

#### · Hazard pictograms



· Signal word Danger

· Hazard-determining components of labeling:

Papain

· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

· Precautionary statements

P284 Wear respiratory protection.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves. P280

Wear eye protection / face protection. P280

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Additional information: Contact with acids may cause release of toxic gases
- · Emergency overview:
- · Routes of exposure:

Inhalation 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 | · Listing of dangerous and non-hazardous components: |              |         |
|--------------|--|--------------|---------|
| 7647-14-5    | sodium chloride                                      | Xi R36/38    | 50-100% |
| 57-50-1      | sucrose, pure  |              | 20-35%  |
| 9001-73-4    | Papain   | Xn R42       | 10-20%  |
|              |  | Xi R36/37/38 |         |
| 9005-25-8    | Starch   |              | 2.5-5%  |

· Additional information For the wording of the listed risk phrases refer to section 15.



Printing date 02/03/2015 Reviewed on 01/27/2015

Trade name: Powdered Protease + Salt

(Contd. of page 2)

#### 4 First-aid measures

- · Description of first aid measures
- · 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.
- · After eye contact Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- · After swallowing Induce vomiting and call for medical help.
- · 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

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

- · 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.

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Printing date 02/03/2015 Reviewed on 01/27/2015

Trade name: Powdered Protease + Salt

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· Control parameters

Components with limit values that require monitoring at the workplace: 57-50-1 sucrose, pure

PEL () 15\* 5\*\* mg/m<sup>3</sup>

\*total dust \*\*respirable fraction

REL () 10\* 5\*\* mg/m<sup>3</sup>

\*total dust \*\*respirable fraction

TLV () 10 mg/m<sup>3</sup>

9005-25-8 Starch

PEL () 15\* 5\*\* mg/m<sup>3</sup>

\*total dust \*\*respirable fraction

REL () 10\* 5\*\* mg/m<sup>3</sup>

\*total dust \*\*respirable fraction

TLV () 10 mg/m<sup>3</sup>

- · 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.
- · 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: White
Odor: Odorless

· Odour threshold: Not determined.

· **pH-value:** Not applicable.

· Change in condition

Melting point/Melting range: undetermined

(Contd. on page 5)



Printing date 02/03/2015 Reviewed on 01/27/2015

Trade name: Powdered Protease + Salt

|  |   | (Contd. of page                       |
|--|---|---------------------------------------|
| Boiling point/Boiling range:   | undetermined  | · · · · · · · · · · · · · · · · · · · |
| · Flash point:   | Not applicable  |                                       |
| · Flammability (solid, gaseous)  | Not determined.   |                                       |
| · Ignition temperature:  |   |                                       |
| Decomposition temperature:   | Not determined.   |                                       |
| · Auto igniting:   | Product is not selfigniting.  |                                       |
| · Danger of explosion:   | Product does not present an explosion hazard.                           |                                       |
| Explosion limits:<br>Lower:<br>Upper:  | Not determined.<br>Not determined.                                      |                                       |
| · Vapor pressure:  | Not applicable.   |                                       |
| <ul> <li>Density:</li> <li>Relative density</li> <li>Vapour density</li> <li>Evaporation rate</li> </ul> | Not determined<br>Not determined.<br>Not applicable.<br>Not applicable. |                                       |
| Solubility in / Miscibility with Water: Partition coefficient (n-octanol/water)                          | Fully miscible  |                                       |
| · Viscosity: dynamic: kinematic:   | Not applicable. Not applicable.   |                                       |
| · Solvent content: Organic solvents:   | 0.0 %   |                                       |
| Solids content: Other information  | 100.0 %<br>No further relevant information available.                   |                                       |

### 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

- US



Printing date 02/03/2015 Reviewed on 01/27/2015

Trade name: Powdered Protease + Salt

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#### 11 Toxicological information

- Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritant effect.
- · Sensitization: Sensitization possible through inhalation.
- · 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.

· Target organs:

Skin.

Eye.

Respiratory tract.

#### 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.

(Contd. on page 7)



Printing date 02/03/2015 Reviewed on 01/27/2015

Trade name: Powdered Protease + Salt

(Contd. of page 6)

- Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

| UN-Number  |                 |  |
|--|-----------------|--|
| DOT, ADR, ADN, IMDG, IATA                            | Void            |  |
| UN proper shipping name<br>DOT, ADR, ADN, IMDG, IATA | Void            |  |
| Transport hazard class(es)                           |                 |  |
| DOT, ADR, ADN, IMDG, IATA                            |                 |  |
| Class  | Void            |  |
| 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 I         | MARPOL73/78     |  |
| and the IBC Code                                     | Not applicable. |  |

#### 15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · SARA (Superfund Amendents 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):

All ingredients are listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

 57-50-1
 sucrose, pure
 A4

 9005-25-8
 Starch
 A4

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Printing date 02/03/2015 Reviewed on 01/27/2015

Trade name: Powdered Protease + Salt

(Contd. of page 7)

· 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
- · Technical instructions (air):

| Class | Share in % |
|-------|------------|
| 1     | 10-20      |

- · 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

- · Date of preparation / last revision 02/03/2015 / -
- · 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)

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

· \* Data compared to the previous version altered.

JSA