SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
- Trade name: Lysozyme Lyophilized
- Article number: 1660415, 1660415EDU, 9702999
- CAS Number: 9001-63-2
- EC number: 232-620-4

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Bio-Rad Laboratories Pte Ltd.
27 International Business Park 01-02
Singapore 609924
phone: 65-6415-3188 fax: 65-6415-3189

Information department:
Technical services, customer support.
sales.singapore@bio-rad.com

1.4 Emergency telephone number: 65-6415-3188

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  The substance is not classified according to the CLP regulation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC: not applicable
- Information concerning particular hazards for human and environment: not applicable

2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008 Void
  Hazard pictograms Void
  Signal word Void
  Hazard statements Void

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

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation: Substances
- CAS No. Description:
  9001-63-2 Lysozyme
- Identification number(s):
- EC number: 232-620-4
- Additional information: For the wording of the listed risk phrases refer to section 16.
SECTION 4: First aid measures

· 4.1 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.

· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

· 4.3 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media
  · Suitable extinguishing agents
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· 5.2 Special hazards arising from the substance or mixture No further relevant information available.

· 5.3 Advice for firefighters
  · Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.

· 6.2 Environmental precautions: No special measures required.

· 6.3 Methods and material for containment and cleaning up:
  Dispose contaminated material as waste according to item 13.

· 6.4 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.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling
  No special measures required.
  Prevent formation of dust.

· Information about protection against explosions and fires: No special measures required.

· 7.2 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.

· 7.3 Specific end use(s) No further relevant information available.
SECTION 8: Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

· 8.1 Control parameters
· Components with limit values that require monitoring at the workplace: Not required.
· Additional information: The lists that were valid during the creation were used as basis.

· 8.2 Exposure controls
· Personal protective equipment
· General protective and hygienic measures
  The usual precautionary measures should be adhered to when handling chemicals.
· 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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· Eye protection: Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:
  · Form: Crystalline powder
  · Solid.
· Colour: Whitish
· Odour: Odourless
· Odour threshold: Not determined.
· pH-value: Not applicable.

· Change in condition
  · Melting point/Melting range: undetermined
  · Boiling point/Boiling range: undetermined

· Flash point: Not applicable

· Flammability (solid, gaseous) Product is not flammable.

· Ignition temperature:
  · Decomposition temperature: Not determined.
  · Self igniting: Not determined.

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

· Explosion limits:
  · Lower: Not determined.
  · Upper: Not determined.
40.0.4

- Vapour pressure: Not applicable.
- Density: Not determined
- Relative density Not determined.
- Vapour density Not applicable.
- Evaporation rate Not applicable.
- Solubility in / Miscibility with Water: Fully miscible
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - dynamic: Not applicable.
  - kinematic: Not applicable.
- Organic solvents: 0.0 %
- Solids content: 100.0 %
- 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
    - Sensitisation: No sensitising effects known.
- Additional toxicological information:
  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.
  The substance is not subject to classification according to the latest version of the EU lists.

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
Trade name: Lysozyme Lyophilized

12.2 Persistence and degradability  No further relevant information available.
12.3 Bioaccumulative potential  No further relevant information available.
12.4 Mobility in soil  No further relevant information available.

Additional ecological information:

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects  No further relevant information available.

SECTION 13: Disposal considerations

13.1 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.

SECTION 14: Transport information

14.1 UN-Number

ADR, ADN, IMDG, IATA  Void

14.2 UN proper shipping name

ADR, ADN, IMDG, IATA  Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA  Void
Class  Void

14.4 Packing group

ADR, IMDG, IATA  Void

14.5 Environmental hazards:

Marine pollutant:  No

14.6 Special precautions for user  Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  Not applicable.

Transport/Additional information:  Not dangerous according to the above specifications.

UN "Model Regulation":  -
SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
  - National regulations

- Water hazard class: Generally not hazardous for water.

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

SECTION 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

- 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
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)