

Reviewed on 11/21/2012

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

- · Product identifier
- · Trade name: Yeast Lytic Enzyme, from Arthrobacter luteus
- Article number: 153526
- CAS Number: 37340-57-1
- \cdot Details of the supplier of the safety data sheet
- Manufacturer/Supplier: MP Biomedicals, LLC 29525 Fountain Parkway Solon, OH 44139 United States www.mpbio.com
- · Information department: Product safety department
- Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2 Hazards identification

· Classification of the substance or mixture

GHS08 Health hazard

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

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Harmful

May cause sensitisation by inhalation.

· Information concerning particular hazards for human and environment: Not applicable.

- · Label elements
- · GHS label elements
- The substance is classified and labelled according to the Globally Harmonized System (GHS).
- Hazard pictograms



- · Signal word Danger
- *Hazard-determining components of labelling:* yeast lytic enzyme
- · Hazard statements
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- · Precautionary statements
- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read label before use.
- In case of inadequate ventilation wear respiratory protection.
- Avoid breathing dust/fume/gas/mist/vapours/spray.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

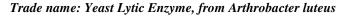
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

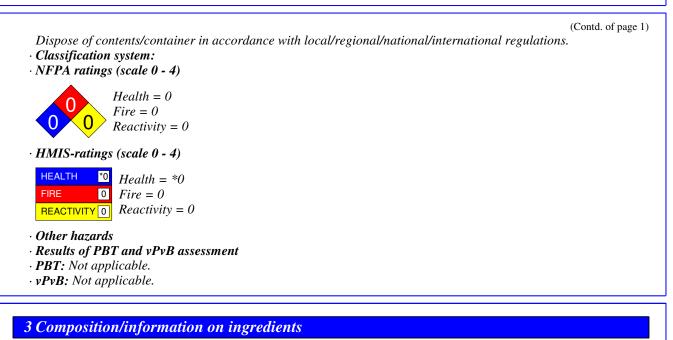
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- · Chemical characterization: Substances
- · CAS No. Description
- 37340-57-1 yeast lytic enzyme
- · Identification number(s) -

4 First aid measures

- · Description of first aid measures
- 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: If symptoms persist consult doctor.
- 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 Firefighting measures

- · Extinguishing media
- \cdot 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 Not required.

• Environmental precautions: Do not allow to enter sewers/ surface or ground water.

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 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

· Handling:

- **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: 0°C
- 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: Not required.
- 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.
- Wash hands before breaks and at the end of work.
- · 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:

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.
- \cdot 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: Not required.

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Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form:	Solid	
Color:	Not determined.	
Odor: Odour threshold:	Characteristic 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.	
Auto igniting:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not applicable.	
Density:	Not determined.	
Relative density	Not determined.	
Vapour density	Not applicable.	
Evaporation rate	Not applicable.	
Solubility in / Miscibility with		
Water:	Insoluble.	
Partition coefficient (n-octanol/wat	er): Not determined.	
Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
Organic solvents:	0.0 %	
Solids content:	100.0 %	
Other information	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.

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· 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: Sensitization possible through inhalation.
- \cdot Additional toxicological information:
- · Carcinogenic categories

· IARC (International Agency for Research on Cancer)

Substance is not listed.

· NTP (National Toxicology Program)

Substance is not 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.

· vPvB: Not applicable.

• Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number

· DOT, ADR, ADN, IMDG, IATA

Void

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· UN proper shipping name · 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 MARPOL73/78 and the IBC Code	II of Not applicable.	
· UN "Model Regulation":	-	

15 Regulatory information

 \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture \cdot Sara

Section 355 (extremely hazardous substances):	
Substance is not listed.	
Section 313 (Specific toxic chemical listings):	
Substance is not listed.	
TSCA (Toxic Substances Control Act):	
Substance is not listed.	
Proposition 65	
Chemicals known to cause cancer:	
Substance is not listed.	
Chemicals known to cause reproductive toxicity for females:	
Substance is not listed.	
Chemicals known to cause reproductive toxicity for males:	
Substance is not listed.	
Chemicals known to cause developmental toxicity:	
Substance is not listed.	
Carcinogenic categories	
EPA (Environmental Protection Agency)	
Substance is not listed.	
TLV (Threshold Limit Value established by ACGIH)	
Substance is not listed.	
NIOSH-Ca (National Institute for Occupational Safety and Health)	
Substance is not listed.	
OSHA-Ca (Occupational Safety & Health Administration)	
Substance is not listed.	
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Trade name: Yeast Lytic Enzyme, from Arthrobacter luteus

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GHS label elements	
The substance is classified and labelled according to the Globally Harmonized System (GHS).	
Hazard pictograms	
GHS08	
011508	
Signal word Danger	
Hazard-determining components of labelling:	
yeast lytic enzyme	
Hazard statements	
May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Precautionary statements	
If medical advice is needed, have product container or label at hand.	
Keep out of reach of children.	
Read label before use.	
In case of inadequate ventilation wear respiratory protection.	
Avoid breathing dust/fume/gas/mist/vapours/spray.	
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.	
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position	n comfortable fo
breathing.	
Dispose of contents/container in accordance with local/regional/national/international regulation	ns.
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 MSDS: Product safety department

 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 CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

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