according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

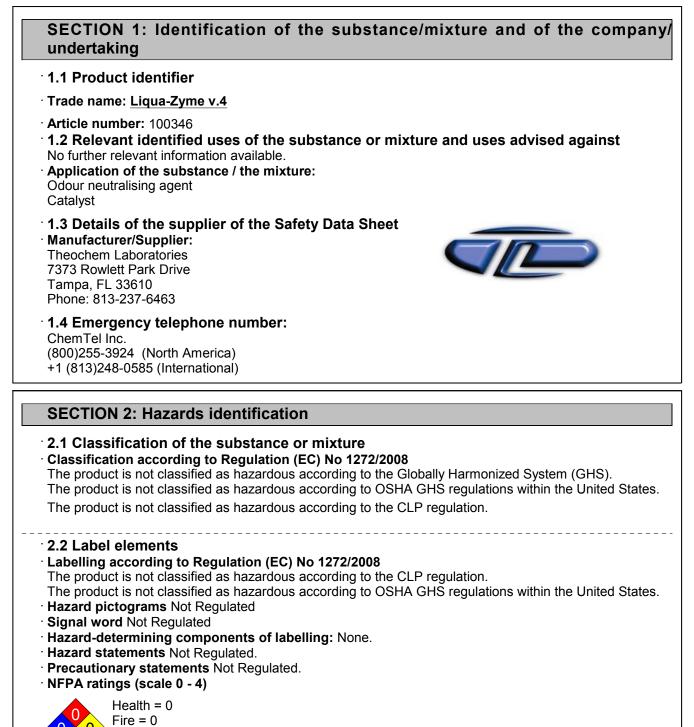
GHS

Printing date: 27 November 2017

Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Revision: 27 November 2017



(Cont'd. on page 2)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 27 November 2017

Revision: 27 November 2017

Trade name: Liqua-Zyme v.4

(Cont'd. from page 1)

HEALTHImage: OFIREImage: OREACTIVITYReactivity = 0

• **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified. • **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Components: None in reportable quantities.

SECTION 4: First aid measures

4.1 Description of first aid measures · After inhalation: Supply fresh air; consult doctor in case of complaints. · After skin contact: Immediately rinse with water. If skin irritation continues, consult a doctor. · After eve contact: Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. · After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately. • 4.2 Most important symptoms and effects, both acute and delayed Gastric or intestinal disorders. 4.3 Indication of any immediate medical attention and special treatment needed Treat symptomatically. **SECTION 5: Firefighting measures**

[•] 5.1 Extinguishing media

Suitable extinguishing agents:

The product is not flammable.

Use fire extinguishing methods suitable to surrounding conditions.

· For safety reasons unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

- 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

(Cont'd. on page 3)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 27 November 2017

Trade name: Ligua-Zyme v.4

(Cont'd. from page 2)

Revision: 27 November 2017

Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

[•] 6.2 Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Send for recovery or disposal in suitable receptacles.

Clean the affected area carefully; suitable cleaners are:

Warm water

6.4 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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles. Use only in well ventilated areas.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

No special measures required.

The product is not flammable.

7.2 Conditions for safe storage, including any incompatibilities · Storage:

· Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

· Information about storage in one common storage facility: Not required.

• Further information about storage conditions: Keep container tightly sealed.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant guantities of materials with critical values that have to be monitored at the workplace.

• DNELs: No further relevant information available.

(Cont'd. on page 4)

(Cont'd. on page 5)

Safety Data Sheet according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

Printing date: 27 November 2017

· Flash point:

· Flammability (solid, gas):

· Auto/Self-ignition temperature:

Revision: 27 November 2017

Trade name: Liqua-Zyme v.4		
		(Cont'd. from page 3)
• PNECs: No further relevant informa	ation available.	
 8.2 Exposure controls Personal protective equipment: General protective and hygienic in The usual precautionary measures Keep away from foodstuffs, beverag Wash hands before breaks and at t Do not inhale gases / fumes / aeros Avoid contact with the eyes. Respiratory protection: Not required under normal condition For spills, respiratory protection may Protection of hands: 	are to be adhered to when handling chemica ges and feed. he end of work. sols. ns of use.	ls.
Protective gloves		
	meable and resistant to the product/ the subs s made of the following materials are suit	· ·
Safety glasses		
 Body protection: Protection may b Limitation and supervision of exp Risk management measures: No 	posure into the environment: No special re	quirements.
SECTION 9: Physical and cl	hemical properties	
 9.1 Information on basic phys Appearance Form: Colour: Odour: Odour threshold: 	ical and chemical properties Liquid Blue Pleasant Not determined.	
 pH-value: Melting point/freezing point: Initial boiling point and boiling ra 	5,5-6,5 Not determined. Inge: 100 °C (212 °F)	

Not applicable.

Not applicable.

Not determined.

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 27 November 2017

Revision: 27 November 2017

Trade name: Liqua-Zyme v.4

	(Cc	ont'd. from page 4
· Decomposition temperature:	Not determined.	
· Explosive properties:	Product does not present an explosion hazard.	
· Explosion limits		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapour pressure at 20 °C (68 °F):	23 hPa (17,3 mm Hg)	
· Density:		
Relative density:	0,96-0,98	
Vapour density:	Not determined.	
Evaporation rate at 20 °C (68 °F):	< 1.0 (Butyl acetate = 1)	
· Solubility in / Miscibility with		
water:	Fully miscible.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
[•] 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

. **10.1 Reactivity** No further relevant information available.

[•] 10.2 Chemical stability

• Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

To avoid thermal decomposition do not overheat.

• 10.3 Possibility of hazardous reactions No dangerous reactions known.

· 10.4 Conditions to avoid Excessive heat.

• **10.5 Incompatible materials** No further relevant information available.

* 10.6 Hazardous decomposition products Possible in traces.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

• Acute toxicity: Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification: None.

· Primary irritant effect

• Skin corrosion/irritation: Based on available data, the classification criteria are not met.

· Serious eye damage/irritation: Slight irritant effect on eyes.

• Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

· Carcinogenic categories

(Cont'd. on page 6)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 27 November 2017

Revision: 27 November 2017

Trade name: Liqua-Zyme v.4

(Cont'd. from page 5)

• IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

• NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable routes of exposure:

Ingestion.

Inhalation.

Eye contact.

Skin contact.

• Germ cell mutagenicity: Based on available data, the classification criteria are not met.

· Carcinogenicity: Based on available data, the classification criteria are not met.

• Reproductive toxicity: Based on available data, the classification criteria are not met.

· STOT-single exposure: Based on available data, the classification criteria are not met.

· STOT-repeated exposure: Based on available data, the classification criteria are not met.

· Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

[·] 12.1 Toxicity

• Aquatic toxicity: The product contains materials that are harmful to the environment.

• **12.2 Persistence and degradability** Biodegradable

• **12.3 Bioaccumulative potential** No further relevant information available.

• **12.4 Mobility in soil** No further relevant information available.

• Additional ecological information:

· General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

[•] 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

Small amounts may be diluted with plenty of water and washed away. Dispose of larger amounts in accordance with Local Authority requirements.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· Uncleaned packaging:

(Cont'd. on page 7)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 27 November 2017

Revision: 27 November 2017

Trade name: Liqua-Zyme v.4

(Cont'd. from page 6)

Recommendation: Disposal must be made according to official regulations.
 Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information		
· 14.1 UN-Number · DOT, ADR, IMDG, IATA	Not Regulated	
 14.2 UN proper shipping name DOT, ADR, IMDG, IATA 	Not Regulated	
[·] 14.3 Transport hazard class(es)		
· DOT, ADR, IMDG, IATA · Class	Not Regulated	
 14.4 Packing group DOT, ADR, IMDG, IATA 	Not Regulated	
 14.5 Environmental hazards: Marine pollutant: 	Νο	
¹ 14.6 Special precautions for user	Not applicable.	
 14.7 Transport in bulk according to An of Marpol and the IBC Code 	nnex II Not applicable.	

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
United States (USA)
SARA
Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:
None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

• Chemicals known to cause reproductive toxicity for males:

(Cont'd. on page 8)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA

GHS

Printing date: 27 November 2017

Revision: 27 November 2017

Trade name: Liqua-Zyme v.4

(Cont'd. from page 7)

None of the ingredients are listed. • Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· Carcinogenic Categories

• EPA (Environmental Protection Agency)

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Other regulations, limitations and prohibitive regulations

• Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

* 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.

Abbreviations and acronyms:

ADR: 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 GHS: Globally Harmonised System of Classification and Labelling of Chemicals 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) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistant, Bio-accumulable, Toxic SVHC: Substances of Very High Concern vPvB: very Persistent and very Bioaccumulative Sources Website, European Chemicals Agency (echa.europa.eu) Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do) Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

(Cont'd. on page 9)

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA GHS

Printing date: 27 November 2017

Revision: 27 November 2017

Trade name: Liqua-Zyme v.4

(Cont'd. from page 8)

Safety Data Sheets, Individual Manufacturers

SDS Prepared by: ChemTel Inc. 1305 North Florida Avenue Tampa, Florida USA 33602-2902 Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573 Website: www.chemtelinc.com