



# Safety Data Sheet acc. to OSHA HCS

Printing date 01/18/2017

Reviewed on 01/18/2017

## 1 Identification

- **Product identifier**
- **Trade name: Viva Zym**
- **Application of the substance / the mixture**  
Laundry  
Detergent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SEITZ GmbH  
Gutenbergstrasse 1 - 3  
65830 Kriftel / Germany  
Tel. + 49(0) 6192-9948-0  
Fax + 49(0) 6192-9948-99  
order@seitz24.com  
www.seitz24.com
- **Information department:**  
CHEM-TEL Inc.  
1305 North Florida Ave  
Tampa Florida 33602
- **Emergency telephone number:** 1-800-255-3924

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

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

· <b>CAS-No. Components:</b>		
CAS: 57-55-6	1,2-propanediol	25 - 50%
CAS: 9014-01-1	subtilisin	< 0.25%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

## 4 First-aid measures

- **Description of first aid measures**
- **General information** Immediately remove any clothing soiled by the product.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately rinse with water.

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- **After eye contact**  
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; 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**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** No further relevant information available.
- **Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**  
Do not inhale explosion gases or combustion gases.  
Wear self-contained respiratory protective device.
- **Additional information**  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Avoid contact with eyes and skin.  
Ensure adequate ventilation
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **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.
- **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**  
Keep away from heat and direct sunlight.  
Avoid contact with eyes and skin.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.

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- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**  
Protect from heat and direct sunlight.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from frost.  
Time of storage: max. 12 month
- **Specific end use(s)** Laundry

### 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:**

**CAS: 57-55-6 1,2-propanediol**

WEEL (USA)	Long-term value: 10 mg/m <sup>3</sup>
EV (Canada)	Long-term value: 155* 10** mg/m <sup>3</sup> , 50* ppm *vapour and aerosol;**aerosol only

**CAS: 9014-01-1 subtilisin**

REL (USA)	Short-term value: 0.00006* mg/m <sup>3</sup> *60-min
TLV (USA)	Ceiling limit value: 0.00006 mg/m <sup>3</sup> as 100% crystalline active pure enzyme
EL (Canada)	Ceiling limit value: 0.00006 mg/m <sup>3</sup> S
EV (Canada)	Ceiling limit value: 0.00006 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**  
The usual precautionary measures for handling chemicals should be followed.  
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.  
Do not eat, drink, smoke or sniff while working.  
Do not inhale gases / fumes / aerosols.
- **Breathing equipment:**  
Not necessary if room is well-ventilated.  
Use suitable respiratory protective device in case of insufficient ventilation (exceeding the workplace limit values, formation of aerosols).
- **Protection of hands:**  
Protective gloves.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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- **Material of gloves**  
Nitrile rubber, NBR  
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 trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing recommended

## 9 Physical and chemical properties

- |  |   |
|--|---|
| · <b>Information on basic physical and chemical properties</b>                               |   |
| · <b>General Information</b>   |   |
| · <b>Appearance:</b>   |   |
| Form:  | Fluid   |
| Color:   | Light yellow                                  |
| · <b>Odor:</b>   | Product specific                              |
| · <b>Odor threshold:</b>   | No further relevant information available.    |
| · <b>pH-value at 20 °C (68 °F):</b>  | ~ 6.9   |
| · <b>Change in condition</b>   |   |
| Melting point/Melting range:   | undetermined                                  |
| Boiling point/Boiling range:   | undetermined                                  |
| · <b>Flash point:</b>  | Not applicable                                |
| · <b>Flammability (solid, gaseous)</b>   | No further relevant information available.    |
| · <b>Ignition temperature:</b>   | No further relevant information available.    |
| · <b>Decomposition temperature:</b>  | No further relevant information available.    |
| · <b>Auto igniting:</b>  | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>  | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>   |   |
| Lower:   | No further relevant information available.    |
| Upper:   | No further relevant information available.    |
| · <b>Oxidizing properties</b>  | No further relevant information available.    |
| · <b>Vapor pressure:</b>   | No further relevant information available.    |
| · <b>Density at 20 °C (68 °F):</b>   | ~ 1.03 g/cm <sup>3</sup> (ISO 2811)           |
| · <b>Relative density</b>  | No further relevant information available.    |
| · <b>Vapor density</b>   | No further relevant information available.    |
| · <b>Evaporation rate</b>  | No further relevant information available.    |
| · <b>Solubility in / Miscibility with</b>  |   |
| Water:   | Fully miscible                                |
| · <b>Partition coefficient (n-octanol/water):</b> No further relevant information available. |   |
| · <b>Viscosity:</b>  |   |
| dynamic:   | No further relevant information available.    |

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<b>kinematic:</b>	No further relevant information available.
<b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**  
Stable under normal ambient conditions.  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** None if used as directed.
- **Conditions to avoid** Prevent formation of aerosols.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**CAS: 57-55-6 1,2-propanediol**

Oral	LD50	22000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)

**CAS: 9014-01-1 subtilisin**

Oral	LD50	1800 mg/kg (rat) (OECD TG 401)
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- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**

· **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.

### 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

**CAS: 57-55-6 1,2-propanediol**

EC50	24200 mg/l (Aquatic plants, algae) (72 h; Scenedesmus capricornutum)
	> 100 mg/l (Aquatic invertebrates) (48 h; Daphnia)
LC50	40613 mg/l (Fish) (96 h; Oncorhynchus mykiss)

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**CAS: 9014-01-1 subtilisin**

LC50 8.2 mg/l (Fish) (96 h; OECD 203)

- **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:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
- **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:**  
Contaminated adsorbent, soil, water must be disposed of in a permitted hazardous waste management facility. Recovered products may be reused, reprocessed or incinerated or must be treated in a permitted hazardous waste management facility. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clean Air Act, The Clean Water Act, RCRA, as well as applicable Federal, State, and local Regulations regarding disposal.

### 14 Transport information

- |  |  |
|--|--|
| · <b>UN-Number</b>   | Void   |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void   |
| · <b>UN proper shipping name</b>   | Void   |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void   |
| · <b>Transport hazard class(es)</b>  | Void   |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Void   |
| · <b>Class</b>   | Void   |
| · <b>Packing group</b>   | Void   |
| · <b>DOT, ADR, IMDG, IATA</b>  | Void   |
| · <b>Environmental hazards:</b>  | Not applicable.                                      |
| · <b>Special precautions for user</b>  | Not applicable.                                      |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                                      |
| · <b>Transport/Additional information:</b>                                       | Not dangerous according to the above specifications. |

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· **UN "Model Regulation":** Void

## 15 Regulatory information

· **Canadian substance lists**

· **Canadian domestic substance list (DSL):**

All ingredients are listed.

· **Canadian ingredient disclosure list (limit 0.1%):**

None of the ingredients is listed.

· **Canadian ingredient disclosure list (limit 1%):**

CAS: 57-55-6 | 1,2-propanediol

· **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):**

All ingredients are listed.

· **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.

· **New Jersey Right-to-Know List:**

CAS: 57-55-6 | 1,2-propanediol

· **New Jersey Special Hazardous Substance List:**

None of the ingredients is listed.

· **Pennsylvania Right-to-Know List:**

CAS: 57-55-6 | 1,2-propanediol

· **Pennsylvania Special Hazardous Substance List:**

None of the ingredients is listed.

· **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.

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- **National regulations**
- **Other regulations, limitations and prohibitive regulations**
- **Please note:**

The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyers responsibility to ensure that its activities comply with Federal, State or provincial, and local laws. The following specific information is made for the purpose of complying with numerous laws and regulations.

- **Other information:** The product has been designed for professional use only.

### 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.

- **Date of preparation / last revision** 01/18/2017 / 2

- **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: 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

- \* **Data compared to the previous version altered.**