

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

**1.1. Product identifier**

Product form : Mixture  
 Trade name : Zolvstat™ Multi-Enzymatic Detergent  
 Product code : 1225

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Product for hospital and professional use only. Not for home use.  
 Use of the substance/mixture : Multi-Enzymatic Detergent

**1.2.2. Uses advised against**

No additional information available.

**1.3. Details of the supplier of the safety data sheet**

Manufacturer:

STERIS Corporation  
 P. O. Box 147, St. Louis, MO 63166, US  
 Telephone Number for Information: 1-800-548-4873 (Customer Service-Healthcare Products)  
 US Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)

Supplier:

STERIS Ireland Limited  
 IDA Business and Technology Park  
 Tullamore  
 County Offaly  
 R35 X865  
 Ireland.  
 Product/Technical Information Phone No: +44 (0) 116 276 8636  
 Email: asksteris\_msds@steris.com

**1.4. Emergency telephone number**

Emergency number : +44 (0) 1895 622 639

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Resp. Sens. 1 H334

Full text of H-phrases: see Section 16.

**Adverse physicochemical, human health and environmental effects**

No additional information available.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) : Danger  
 Hazard statements (CLP) : H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
 Precautionary statements (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray  
 P284 - In case of inadequate ventilation, wear respiratory protection  
 P304+P341 - IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing  
 P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor

**2.3. Other hazards**

No additional information available.

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according to Regulation (EC) No. 453/2010

#### SECTION 3: Composition/information on ingredients

##### 3.1. Substance

Not applicable.

##### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Protease	(CAS No) 9014-01-1 (EC No) 232-752-2 (EC index No) 647-012-00-8	0.1-1.0	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 STOT SE 3, H335
Alpha-Amylase	(CAS No) 9000-90-2 (EC No) 232-565-6	0.1-1.0	Resp. Sens. 1, H334
Lipase	(CAS No) 9001-62-1 (EC No) 232-619-9	0.1-1.0	Resp. Sens. 1, H334
Cellulase	(CAS No) 9012-54-8 (EC No) 232-734-4	0.1-1.0	Resp. Sens. 1, H334
Glycerin	(CAS No) 56-81-5 (EC No) 200-289-5	5-10	Not classified

Full text of H-phrases: see Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Get medical attention.
- First-aid measures after skin contact : Immediately flush skin with plenty of water for at least 15 minutes. Remove/Take off immediately all contaminated clothing. Obtain medical attention.
- First-aid measures after eye contact : In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention immediately.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Give water to drink if victim completely conscious/alert.

##### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Inhalation of vapors or spray/mists may cause allergy or asthma symptoms or breathing difficulties. May cause respiratory irritation.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes eye irritation.
- Symptoms/injuries after ingestion : Can occur: Gastrointestinal disturbance.

##### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

- Suitable extinguishing media : Use fire-extinguishing media appropriate for primary source of fire.

##### 5.2. Special hazards arising from the substance or mixture

- Hazardous decomposition products in case of fire : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NOx).

##### 5.3. Advice for firefighters

- Firefighting Instructions : Exercise caution when fighting any chemical fire.
- Protective equipment for firefighters : Use self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self-contained breathing apparatus.
- Other information : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NOx).

#### SECTION 6: Accidental release measures

##### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Do not breathe fumes, vapors. Avoid contact with skin, eyes and clothes.

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#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Wear protective gloves and eye/face protection. For further information refer to Section 8.  
Emergency procedures : Evaluate unnecessary personnel.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Comply with applicable local, national and international regulation. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Residue may be washed down with water. Product may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Product for hospital and professional use only. Read label before use. Provide good ventilation in process area to prevent formation of vapor. Avoid all eye and skin contact and do not breathe vapor and mist. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.  
Hygiene measures : Take care for general good hygiene and housekeeping. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present  
Storage conditions : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.  
Storage temperature : When dispensing, store in a cool place below 32°C (90°F) to maintain product integrity. Store in a dry, cool, well-ventilated area.

#### 7.3. Specific end use(s)

No additional information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Protease (9014-01-1)		
Portugal	OEL - Tectos (mg/m <sup>3</sup> )	0.00006 mg/m <sup>3</sup> (regulamentado pelo Subtilisinas)
Spain	VLA-ED (mg/m <sup>3</sup> )	0.00006 mg/m <sup>3</sup>
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	0,00004 mg/m <sup>3</sup>
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	0,00012 mg/m <sup>3</sup> (calculated)
USA - ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	0,00006 mg/m <sup>3</sup>
USA - NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	0,00006 mg/m <sup>3</sup>

Glycerin (56-81-5)		
Portugal	OEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Spain	VLA-ED (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	30 mg/m <sup>3</sup> (calculado)
USA - OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>

#### 8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the vicinity of any potential exposure.

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#### Personal protective equipment

: Avoid all unnecessary exposure. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Gloves. Protective goggles. Protective clothing.



#### Hand protection

: Wear rubber gloves or latex free gloves.

#### Eye protection

: Wear chemical goggles or safety glasses.

#### Respiratory protection

: Work in well-ventilated zones or use proper respiration protection.

#### Other information

: Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Blue
Odour	: Fresh odour
Odour threshold	: No data available
pH	: 8.5 – 9.0
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: Approximately 1.1 g/ml Specific Gravity
Solubility	: Water: Completely soluble
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

Stable under normal conditions of use.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to avoid

Heat. Light.

### 10.5. Incompatible materials

Strong oxidizers.

### 10.6. Hazardous decomposition products

Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxides and nitrogen oxides.

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#### SECTION 11: Toxicological information

##### 11.1. Information on toxicological effects

Skin corrosion/irritation	: May cause skin irritation
Serious eye damage/irritation	: May cause eye irritation
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. Based on available date, the classification criteria are not met.
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Inhalation of vapors or spray/mists may cause allergy or asthma symptoms or breathing difficulties. May cause respiratory irritation.
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met.

#### SECTION 12: Ecological information

##### 12.1. Toxicity

Ecology - general	: 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.
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##### 12.2. Persistence and degradability

No additional information available.

##### 12.3. Bioaccumulative potential

Zolvstat™ Multi-Enzymatic Detergent	
Bioaccumulative potential	Not established.

##### 12.4. Mobility in soil

No additional information available.

##### 12.5. Results of PBT and vPvB assessment

No additional information available.

##### 12.6. Other adverse effects

Avoid release to the environment.

#### SECTION 13: Disposal considerations

##### 13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not re-use empty containers.
Additional information	: Empty containers should be thoroughly rinsed with large quantities of clean water. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.
Ecology - waste materials	: Avoid release to the environment.

#### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

##### 14.1. UN number

Not regulated for transport.

##### 14.2. UN proper shipping name

Not applicable.

##### 14.3. Transport hazard class(es)

Not applicable.

##### 14.4. Packing group

Not applicable.

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#### 14.5. Environmental hazards

Dangerous for the environment : No.  
Marine pollutant : No.  
Other information : No supplementary information available.

#### 14.6. Special precautions for user

##### 14.6.1. Overland transport

No additional information available.

##### 14.6.2. Transport by sea

No additional information available.

##### 14.6.3. Air transport

No additional information available.

##### 14.6.4. Inland waterway transport

Not subjected to ADN : No additional information available.

##### 14.6.5. Rail transport

Carriage prohibited (RID) : No additional information available.

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU-Regulations

Contains no REACH candidate substance.

##### 15.1.2. National regulations

No additional information available.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

Revision Date : 02/12/2018

Full text of H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (Oral), Category 4
Acute Tox. 4 (Derm)	Acute toxicity (Derm), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (Inhalation), Category 4
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Resp Sens 1	Respiratory Sensitizer Category 1
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H332	Harmful if inhaled

SDS EU (REACH Annex II)

*The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product or where instruction or recommendations are not followed.*