


# Safety Data Sheet – Enzyme Solution

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

<b>1.1</b>	<b>Product identifier</b>				
	Product form:	Mixture			
	Product name:	Enzyme Solution			
	Product code:	LPS100B			
	Type of product:	Solution			
<b>1.2</b>	<b>Relevant identified uses of the substance or mixture and uses advised against</b>				
<b>1.2.1</b>	<b>Relevant identified uses</b>				
	Main use category:	Industrial use, Professional use			
	Industrial/Professional use spec:	Industrial. For professional use only			
	Use of substance/mixture:	Laboratory chemicals			
<b>1.2.2</b>	<b>Uses advised against</b>				
	No additional information available				
<b>1.3</b>	<b>Details of the supplier of the safety data sheet</b>				
	CytoCell Ltd, Oxford Gene Technology 418 Cambridge Science Park, Milton Road, Cambridge, CB4 0PZ. United Kingdom T: +44 (0) 1223 294048 F: +44 (0) 1223 294986 probes@cytoCell.com <a href="http://www.ogt.com">http://www.ogt.com</a>				
<b>1.4</b>	<b>Emergency telephone number</b>				
	<b>Country</b>	<b>Organisation/Company</b>	<b>Address</b>	<b>Emergency Number</b>	<b>Comment</b>
	Ireland	National Poisons Information Centre, Beaumont Hospital	Beaumont Hospital Beaumont Road, 9 Dublin	+353 1 8379964	
	United Kingdom	National Poisons Information Service (NHS Direct)	<a href="http://www.npis.org">www.npis.org</a>	111 (England & Wales only) 112 (EU) 08454 24 24 24 (Scotland)	

## SECTION 2: Hazards identification

<b>2.1</b>	<b>Classification of the substance or mixture</b>				
<b>2.1.1</b>	<b>Classification according to Regulation (EC) No. 1272/2008 [CLP]</b>				
	Respiratory sensitisation, Category 1 H334				
	Full text of hazard classes and H-statements : see section 16				
<b>2.1.2</b>	<b>Adverse physicochemical, human health and environmental effects</b>				
	No additional information available				
<b>2.2</b>	<b>Label elements</b>				
	<b>Labelling according to Regulation (EC) No. 1272/2008 [CLP]</b>				
	Hazard pictograms (CLP):	 GHS08			
	Signal word (CLP):	Danger			
	Hazardous ingredients:	Pepsin A			

	Hazard statements (CLP):	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	Precautionary statements (CLP):	<p>P261 - Avoid breathing fume, mist, spray, vapours.</p> <p>P284 - In case of inadequate ventilation wear respiratory protection.</p> <p>P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.</p> <p>P501 - Dispose of contents to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.</p>
<b>2.3</b>	<b>Other hazards</b>	
	No additional information available	

### SECTION 3: Composition/information on ingredients

<b>3.1</b>	<b>Substances</b>			
	Not applicable			
<b>3.2</b>	<b>Mixtures</b>			
	<b>Name</b>	<b>Product identifier</b>	<b>%</b>	<b>Classification according to Regulation (EC) No. 1272/2008 [CLP]</b>
	Pepsin A	(CAS-No.) 9001-75-6 (EC-No.) 232-629-3 (EC Index-No.) 647-008-00-6	0,1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 STOT SE 3, H335
	Full text of H-statements: see section 16			

### SECTION 4: First aid measures

<b>4.1</b>	<b>Description of first aid measures</b>	
	First-aid measures general:	Call a poison center or a doctor if you feel unwell. 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 person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
	First-aid measures after skin contact:	Wash skin with plenty of water. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
	First-aid measures after eye contact:	Rinse eyes with water as a precaution. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
	First-aid measures after ingestion:	Call a poison center or a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed</b>	
	Symptoms/effects after inhalation:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed</b>	
	Treat symptomatically.	

### SECTION 5: Firefighting measures

<b>5.1</b>	<b>Extinguishing media</b>	
	Suitable extinguishing media:	Use extinguishing media appropriate for surrounding fire.
	Unsuitable extinguishing media:	Do not use a heavy water stream.
<b>5.2</b>	<b>Special hazards arising from the substance or mixture</b>	
	Hazardous decomposition products in case of fire:	Toxic fumes may be released.

<b>5.3</b>	<b>Advice for firefighters</b>	
	<p>Firefighting instructions:</p> <p>Protection during firefighting:</p>	<p>Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.</p> <p>Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.</p>

## SECTION 6: Accidental release measures

<b>6.1</b>	<b>Personal precautions, protective equipment and emergency procedures</b>	
<b>6.1.1</b>	<b>For non-emergency personnel</b>	
	Emergency procedures:	Ventilate spillage area. Avoid breathing fume, mist, spray, vapours. Evacuate unnecessary personnel.
<b>6.1.2</b>	<b>For emergency responders</b>	
	Protective equipment:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Equip cleanup crew with proper protection.
	Emergency procedures:	Ventilate area.
<b>6.2</b>	<b>Environmental precautions</b>	
	<p>Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if substance enters sewers or public waters.</p>	
<b>6.3</b>	<b>Methods and material for containment and cleaning up</b>	
	Methods for cleaning up:	Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
	Other information:	Dispose of materials or solid residues at an authorised site.
<b>6.4</b>	<b>Reference to other sections</b>	
	For further information refer to section 13. See Heading 8. Exposure controls and personal protection.	

## SECTION 7: Handling and storage

<b>7.1</b>	<b>Precautions for safe handling</b>	
	Precautions for safe handling:	Ensure good ventilation of the work station. Wear personal protective equipment. Avoid breathing fume, mist, spray, vapours. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
	Hygiene measures:	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
<b>7.2</b>	<b>Conditions for safe storage, including any incompatibilities</b>	
	Storage conditions:	Store in a well-ventilated place. Keep cool. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
	Incompatible products:	Strong bases. Strong acids.
	Incompatible materials:	Sources of ignition. Direct sunlight.
<b>7.3</b>	<b>Specific end use(s)</b>	
	No additional information available.	

## SECTION 8: Exposure controls/personal protection

<b>8.1</b>	<b>Control parameters</b>	
	No additional information available.	
<b>8.2</b>	<b>Exposure controls</b>	
	<p>Appropriate engineering controls:</p> <p>Personal protective equipment:</p> <p>Hand protection:</p> <p>Eye protection:</p> <p>Skin and body protection:</p> <p>Respiratory protection:</p> <p>Environmental exposure controls:</p> <p>Other information:</p>	<p>Ensure good ventilation of the work station.</p> <p>Avoid all unnecessary exposure.</p> <p>Protective gloves.</p> <p>Safety glasses.</p> <p>Wear suitable protective clothing.</p> <p>Wear respiratory protection.</p> <p>Avoid release to the environment.</p> <p>Do not eat, drink or smoke during use.</p>

**SECTION 9: Physical and chemical properties**
**9.1 Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	No data available
pH:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	Not applicable
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):	Not applicable, Non flammable.
Vapour pressure:	No data available
Relative vapour density at 20°C:	No data available
Relative density:	No data available
Solubility:	No data available
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**

The product is non-reactive under normal conditions of use, storage and transport.

**10.2 Chemical stability**

Stable under normal conditions. Not established.

**10.3 Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use. Not established.

**10.4 Conditions to avoid**

None under recommended storage and handling conditions (see section 7). Direct sunlight. Extremely high or low temperatures.

**10.5 Incompatible materials**

Strong acids. Strong bases.

**10.6 Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Fume. Carbon monoxide. Carbon dioxide.

**SECTION 11: Toxicological information**
**11.1 Information on toxicological effects**

Acute toxicity:	Not classified
Skin corrosion/irritation:	Not classified
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitisation:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT-single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified
Potential adverse human health effects and symptoms:	Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

<b>12.1</b>	<b>Toxicity</b>	
	Ecology - general:	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
<b>12.2</b>	<b>Persistence and degradability</b>	
	Enzyme Solution	
	Persistence and degradability	Not established.
<b>12.3</b>	<b>Bioaccumulative potential</b>	
	Enzyme Solution	
	Persistence and degradability	Not established.
<b>12.4</b>	<b>Mobility in soil</b>	
	No additional information available.	
<b>12.5</b>	<b>Results of PBT and vPvB assessment</b>	
	No additional information available.	
<b>12.6</b>	<b>Other adverse effects</b>	
	Additional information:	Avoid release to the environment.

**SECTION 13: Disposal considerations**

<b>13.1</b>	<b>Waste treatment methods</b>	
	Waste treatment methods: Product/Packaging disposal recommendations: Ecology - waste materials:	Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Avoid release to the environment.

**SECTION 14: Transport information**

	In accordance with ADR / RID / IMDG / IATA / ADN				
	<b>ADR</b>	<b>IMDG</b>	<b>IATA</b>	<b>ADN</b>	<b>RID</b>
<b>14.1</b>	<b>UN number</b>				
	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2</b>	<b>UN proper shipping name</b>				
	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3</b>	<b>Transport hazard class(es)</b>				
	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4</b>	<b>Packing group</b>				
	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5</b>	<b>Environmental hazards</b>				
	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
	No supplementary information available				
<b>14.6</b>	<b>Special precautions for user</b>				
	Overland transport				
	Not applicable				
	Transport by sea				
	Not applicable				

	Air transport
	Not applicable
	Inland waterway transport
	Not applicable
	Rail transport
	Not applicable
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>
	Not applicable

## SECTION 15: Regulatory information

<b>15.1</b>	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
<b>15.1.1</b>	<b>EU-Regulations</b>	
	The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	
	3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Pepsin A
	3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Enzyme Solution - Pepsin A
	Contains no substance on the REACH candidate list. Contains no REACH Annex XIV substances.	
<b>15.1.2</b>	<b>National regulations</b>	
	<b>Germany</b>	
	VwVwS Annex reference:  12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV:	Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to VwVwS, Annex 4).  Is not subject of the 12. BImSchV (Hazardous Incident Ordinance).
	<b>Netherlands</b>	
	SZW-lijst van kankerverwekkende stoffen: SZW-lijst van mutagene stoffen: NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding: NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid: NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling:	Pepsin A is listed. Pepsin A is listed. None of the components are listed.  None of the components are listed.  None of the components are listed.
	<b>Denmark</b>	
	Recommendations Danish Regulation:	Young people below the age of 18 years are not allowed to use the product.
<b>15.2</b>	<b>Chemical safety assessment</b>	
	No chemical safety assessment has been carried out.	

**SECTION 16: Other information**

Other information:	None.
Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

SDS EU\_NSC

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*