

ENZYME MATERIAL SAFETY DATA SHEET
SCOTTZYME

1. SUBSTANCE OR PREPARATION AND COMPANY IDENTIFICATION

Commercial product name: SCOTTZYME
 Description: Powder or liquid enzyme preparation
 Manufacturer: LYVEN S.A.
 Zac Normandial
 11 Avenue du pays de Caen
 14460 COLOMBELLES – FRANCE
 Tel. 33 (0) 2.31.35.05.30, Fax 33 (0) 2.31.34.54.49, Email lyven@lyven.com
 Emergency phone number: 33(0) 2.31.35.05.30

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization: Enzyme preparation

Information on active substances

Chemical name	CAS number	EINECS number	Symbol	R sentence	%
Pectin Lyase (PL)	9033-35-6	232-894-5	Xn	R-42	1-50%
Pectin Methylesterase (PE)	9025-98-3	232-807-0	Xn	R-42	1-50%
Polygalacturonase (PG)	9032-75-1	232-885-6	Xn	R-42	1-50%
Cellulase	9012-54-8	232-734-4	Xn	R-42	0-50%
Proteinase	9001-92-7	232-642-4	Xn	R-42	0-50%

3. HAZARD IDENTIFICATION

Inadequate manipulation of enzyme preparation may produce aerosols (liquid enzymes) or dust (powdered enzymes or dried liquid enzymes). Repeated inhalation of enzyme dust or aerosols may induce sensitization and allergic type reactions in sensitized individuals. The product may be irritating to eyes. Prolonged skin contact may cause minor irritation.

4. FIRST AID MEASURES

Skin contact: Rinse with plenty of water. If irritation occurs, seek medical advice.
 Eye contact: Rinse with plenty of water. If irritation occurs, seek medical advice.
 Ingestion: Rinse mouth and throat thoroughly with water. If irritation occurs, seek medical advice.
 Inhalation: Remove from exposure. If irritation and or allergic response occur, seek medical advice.

5. FIRE-FIGHTING MEASURES

Suitable fire extinguishing media: Water, foam, halones
 Non-suitable media: None
 Special exposure hazards: None
 Protection against fire and explosions: No special requirements

6. ACCIDENTAL RELEASE MEASURES

After spillage avoid raising dust or aerosol. Pick up by mechanical means or by a vacuum equipped with a high efficiency filter. Dilute remainder with plenty of water. Never use high pressure water jet. Assure sufficient ventilation. Wash contaminated clothing.

7. HANDLING AND STORAGE

Avoid the formation of dust and aerosol. Assure good ventilation of the room when handling this product. Store the container in a dry and cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection: Respirator approved for these types of dust and potential airborne concentrations (mask with P2 filter)

Hand protection: Impermeable gloves

Eye protection: Protecting glasses or eye shield

9. PHYSICAL AND CHEMICAL PROPERTIES

	<i>Appearance</i>	<i>Odour</i>	<i>pH (of liquid or powder dissolved 1% in water)</i>	<i>Solubility</i>	<i>Explosion properties</i>
Liquid	Brown liquid	Slight fermentation odour	From 4,0 to 6,5	/	/
Powder	Beige powder		From 4,0 to 6,0	Partially miscible	Potential risk of dust explosion

10. STABILITY AND REACTIVITY

The material is stable under normal conditions of use.

Conditions to avoid: None

Materials to avoid: None

Hazardous decomposition products: None

11. TOXICOLOGICAL INFORMATION

Repeated inhalation of enzyme dust may induce sensitization and allergic type reactions in sensitized individuals. The product may be irritating to eyes. Prolonged skin contact may cause minor irritation.

12. ECOLOGICAL INFORMATION

Product is believed not to be dangerous to the environment with respect to mobility, persistency and degradability, bio accumulative potential, aquatic toxicity and other data relating to ecotoxicity.

13. DISPOSAL CONSIDERATIONS

No special disposal method required, except to be in accordance with current local authority regulations.

14. TRANSPORT INFORMATION

UN N°: Not applicable Sea: Not applicable

Road / Rail: Not applicable Air: Not applicable

15. REGULATORY INFORMATION

Labelling: Xn (harmful)

R-42: May cause sensitization by inhalation.

S-22/23: Do not breathe dust and spray.

S-24/25: Avoid skin and eye contact.

S-36/37: Wear suitable protecting clothing and gloves.



16. OTHER INFORMATION

The information contained in this material safety data sheet, as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendations or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of our company, it is the responsibility of the user to determine the conditions of safe use of this product. The information in this sheet do not represent analytical specifications, for which please refer to our technical data sheet.

The format of this material safety data sheet complies both with the EEC Directive 91/155/EEC and ISO standard 11014-1 and is recommended by Association of Manufacturers and Formulators of Enzyme Products (AMFEP).