

Material Safety Data Sheet

Hazardous according to NOHSC criteria

Product Name: Deltase HT

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name Deltase HT
Description Liquid enzyme preparation
Use Processing aid in the food/ beverage/ feed industry.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical nature / Synonyms alpha - Amylase
Components contributing to the hazard Enzyme Protein
Concentration range of hazardous 1 - 10%
Component:
Concentration of non hazardous Up to 100%
components:
Classification Xn, R42, S23-24-36/37
Hazchem code: No code allocated
UN number: No number allocated
Poisons schedule number: No number allocated

3. HAZARDS IDENTIFICATION

Repeated inhalation of enzyme aerosol may cause sensitisation and will cause allergic type responses in sensitised individuals. Respiratory symptoms are similar to those of asthma or hayfever. Prolonged skin contact may cause skin irritation.

4. FIRST AID MEASURES

Inhalation: Remove from exposure. If irritation or allergic response develops, consult a doctor.
Skin contact: Wash skin with plenty of cold water.
Eye contact: Irrigate eyes with cold water for at least 20 mins. Obtain medical advice if irritation occurs.
Ingestion: Rinse mouth thoroughly with water and drink water afterwards. Consult a doctor.

5. FIRE FIGHTING MEASURES

Suitable fire fighting extinguishing media : water, foam

6. ACCIDENTAL RELEASE MEASURES

Personal protective equipment as outlined in section 8 must be used when dealing with accidental release of product. The product is completely biodegradable. Spillages of liquid enzyme products should be dealt with immediately, to prevent drying out and formation of dust. Flush with plenty of

water. Avoid splashing. Do not use high pressure or steam washing, as this results in the production of aerosols. Provide sufficient ventilation. Wash all contaminated clothing.

7. HANDLING AND STORAGE.

It is important to use handling practices that do not generate aerosols. Aerosols can develop during spillage, material transfers, pumping of air through liquid, vigorous stirring, steam cleaning and high pressure water flushing. Any operation which might create aerosol should take place in areas that are provided with adequate exhaust or other forms of mechanical control systems. It is important to prevent direct contact with skin. Operations which may create spillage and splashing must be avoided. Rubbing of the face and eyes should be avoided when wearing protective gloves that have been in contact with enzyme. Store product in dry and cool conditions.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection is necessary in circumstances where there is accidental or uncontained release of product.

Respiratory protection:	Respiratory approved for solid and liquid particulates including dusts and mists e.g. 3M 8810 mask or respirator with P3 filter or equivalents
Hand protection:	Impermeable gloves
Eye protection:	Protective glasses

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour/Physical state:	Light brown liquid
Odour:	Slight fermentation odour
Density:	min 1.10
PH:	4.0 - 5.0
Solubility:	Soluble
Flashpoint:	Not applicable

10. STABILITY AND REACTIVITY

This product is stable under normal conditions of use. No hazardous decomposition products have been identified.

11. TOXICOLOGICAL INFORMATION

Long term experience of this product type indicates no danger to health when properly handled under industrial conditions. Repeated inhalation of enzyme aerosol may cause sensitisation and will cause allergic type reactions in sensitised individuals. Prolonged skin contact may cause irritation.

12. ECOLOGICAL INFORMATION

This product type is believed not to be dangerous to the environment. This product is expected to be biodegradable.

13. DISPOSAL INFORMATION

Product and contaminated packaging must be disposed of in accordance with local authority regulations.

Liquid enzymes:

Surplus liquid / enzyme spills may be disposed of to municipal / waste water treatment plants as it is biodegradable, or in accordance with local authority regulations.

Liquid enzyme packaging:

Containers should be drained of excess enzyme residue and rinsed with water. The containers may then be recycled / reused or disposed of as in accordance with local authority regulations.

Powder enzymes:

Powder enzymes may be disposed of to landfill / incineration as in accordance with local authority regulations.

Powder enzyme packaging:

Care should be taken to ensure that the packaging is free from any enzyme residues before it can be sent for recycling/reuse or further disposal in accordance with local authority regulations.

14. TRANSPORT INFORMATION

This product is not a dangerous good according to international regulations for transport.

UN No: Not applicable
Sea: Not applicable
Road/Rail: Not applicable
Air: Not applicable

15. REGULATORY INFORMATION

It is a dangerous preparation according to the EC directive 88/379.

Labelling

Xn	Harmful
R42	May cause sensitisation by inhalation
S23	Do not breathe aerosol
S24	Avoid contact with skin
S36/37	Wear suitable protective clothing and gloves

14. OTHER INFORMATION

Supersedes edition of : 02/02/04 Reason for alteration : New company name and rearranging MSDS data so that format complies with EU Directive 2001/58/EC

The information contained in this 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 recommendation 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 does not represent analytical specifications, for which please refer to our technical data sheet. The content of this Safety Data Sheet complies with Worksafe Australia, EC directive 2001/58/EC and ISO standard ISO11014-1 and is recommended by the Association of Manufacturers and Formulators of Enzyme Products. (AMFEP)

Date of preparation 03/08/04

IMPORTANT FOR YOUR PROTECTION The information and recommendations contained herein are to the best of our knowledge reliable. However, nothing herein is to be construed as a warranty of representation in respect of safety in use, suitability, efficacy or otherwise including freedom from patent infringement. Users should make their own tests for their particular purpose.