

Material Safety Data Sheet

Amylase

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Amylase

Catalog Numbers: 1175-050, 1175-100, 1175-500

Use: For the quantitative determination of Amylase in Serum and Urine.

THERMO ELECTRON
189 - 199 Browns Rd
NOBLE PARK VIC 3174
AUSTRALIA

Tel: +61 3 9790 4100

Fax: +61 3 9790 4155

E-mail: info.clinicalchemistry@thermo.com

THERMO ELECTRON

331 South 104th Street

LOUISVILLE, CO 80027

U.S.A

Tel: (303) 581 6428

Fax: (303) 581 6429

E-mail: info.clinicalchemistry@thermo.com

Contact Point

Australia

Quality Assurance Manager:

Tel: +61 3 9790 4100

Mon – Fri 9:00am to 5:00pm

U.S.A

Chemtel

24 Hour Emergency Assistance

1-800-255-3924

2. HAZARDS IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO EU CRITERIA

Hazard Classification: HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS.

Hazard Category: Harmful

RISK PHRASES

R22 Harmful if swallowed.

SAFETY PHRASES

S28 After contact with skin, wash immediately with plenty of soap and water.

Poison Schedule: None allocated

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
SODIUM AZIDE	0.3 - 0.9 %	26628-22-8
FILLERS, ADDITIVES - NON-HAZARDOUS SUBSTANCES		Balance Mixture

All other ingredients determined not to be hazardous according to the EU criteria.

4. FIRST AID MEASURES

Swallowed:

If swallowed, **DO NOT** induce vomiting. If conscious, give 1 to 2 glasses of water to drink. If irritation persists transport to hospital or doctor.

Eye:

If dust enters the eyes, immediately, flush with plenty of water or normal saline for 15 minutes, occasionally lifting eye lids, until no evidence of chemical remains. If irritation persists, immediately transport to hospital or doctor.

Skin:

If dust is falls onto the skin, remove any contaminated clothing and wash skin thoroughly with soap and water. If irritation persists transport to hospital or doctor.

Inhaled:

Move victim to fresh air. Apply resuscitation if victim is not breathing - If trained personnel available administer oxygen if breathing is difficult.

Material Safety Data Sheet

Amylase

4. FIRST AID MEASURES (continued)

First Aid Facilities:

Eye wash fountain, safety shower and normal wash room facilities.

Advice to Doctor:

Treat symptomatically.

In case of poisoning, contact Poisons Information Centre

In Australia call Tel: 131126

In New Zealand Tel: 034747000

5. FIRE-FIGHTING MEASURES

Fire/Explosion Hazard

If safe to do so, move undamaged containers from fire area.

Hazardous Decomposition Products: Decomposes on heating emitting oxides of carbon and oxides of nitrogen.

Fire Fighting Procedures: Fire fighters to wear Self-contained breathing apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition. Full protective clothing is also recommended.

Extinguishing Media: Use extinguishing media suitable for surrounding fire situation.

Flammability

This material is not a flammable or combustible solid.

6. ACCIDENTAL RELEASE MEASURES

Avoid generating dusts. Wear suitable protective equipment. Ventilate area. If possible wet area down to prevent high dust levels. If available, use dustless methods, such as a HEPA vacuum and filter. Otherwise, use a non-sparking shovel and place into a suitably labeled container for later disposal. Do not dry sweep.

7. HANDLING AND STORAGE

Store in a cool place and out of direct sunlight. Store away from strong acids, lead and heavy metal solutions. Keep containers closed, when not using the product. The dry reagent is stable until the expiration date stated on the label when stored at 2 - 8°C. Store in original packages as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

No exposure standards are available for this product, however, the following exposure standards have been assigned by the National Occupational Health & Safety Commission (NOHSC) to the following component of the product:

SODIUM AZIDE

(Worksafe Australia)

[TWA]0.11 ppm 0.3 mg/m³

[STEL]Peak limitation

References: H

Peak Limitation: For some rapidly acting substances and irritants, the averaging of the airborne concentration over an eight hour period is inappropriate. These substances may induce acute effects after relatively brief exposure to high concentrations and so the exposure standard for these substances represents a maximum or "peak concentration" to which workers may be exposed.

Engineering Controls

Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate.

Personal Protection Equipment

GLOVES: Nitrile or neoprene.

EYES: Chemical glasses or goggles.

RESPIRATORY PROTECTION: Avoid breathing of dusts. The use of a respirator is not normally required, however, if high dust levels are present, then the use of a suitable dust mask or half-face respirator fitted with a P1 filter is recommended. All respirators must comply with AS/NZS 1715 and AS/NZS 1716.

Material Safety Data Sheet

Amylase

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to off-white powder with no odour.
Boiling Point:	Not available.
Freezing Point:	Not available.
Vapour Pressure:	Not available.
Specific Gravity:	Not available.
Flash Point:	Not applicable.
Flammability Limits:	Not applicable.
Solubility in Water:	Completely miscible.

Other Properties

pH: 7.00 - 7.20 @ 19 - 22°C

10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposes on heating emitting oxides of carbon and oxides of nitrogen.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Strong mineral acids (sulfuric, nitric and hydrochloric), lead, silver, copper and mercury salts.

CONDITIONS TO AVOID:

Incompatibles.

11. TOXICOLOGICAL INFORMATION

There is no toxicological information available for this product, however, for the ingredient:

Sodium azide:

Oral LD50(rat): 27 mg/kg

Dermal LD50(rabbit): 20 mg/kg

Oral LDLo(human): 143 mg/kg

Systemic effects: CNS disorders, cardiovascular failure, tachycardia, drop in blood pressure, coughing, dyspnoea, spasms, headache, dizziness, nausea, vomiting, collapse, unconsciousness.

ACUTE HEALTH EFFECTS

Swallowed:

Harmful if swallowed. Over exposure to sodium azide will include headache, nausea, blurred vision, dizziness, vomiting and low blood pressure. May cause irritation to mouth, throat and stomach.

Eye:

May cause irritation to the eyes, with effects including: tearing and blurred vision. These effects are anticipated to be of a short acting nature and no long term injury is anticipated, **if the product is removed promptly.**

Skin:

May cause mild irritation to the skin, with effects including: Redness and itchiness.

Inhaled:

Dusts from the product may cause irritation to the nose, throat and respiratory system.

Chronic:

Prolonged or repeated skin contact may lead to skin rashes in some susceptible individuals. Prolonged or repeated exposure may lead to irreversible damage to health.

Material Safety Data Sheet

Amylase

12. ECOLOGICAL INFORMATION

Environmental Degradation: Dissipation of azides in soil is not by microbial action but is strictly a chemical process, which is accelerated by increased acidity and elevated temperatures. This reaction appears to occur rapidly in soils by oxidation or by reaction of hydrazoic acid with soil organic acids to form azides of these acids which then decompose by a Curtius Rearrangement. Sodium azide appears to be stable in water in the absence of light, however, it appears to be susceptible to photo-decomposition by UV radiation. Photolysis of sodium azide may result in metal nitrides initially, with the eventual formation of the free metal and nitrogen gas.

13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Normally suitable for disposal by approved waste disposal agent.

14. TRANSPORT INFORMATION

UN Number: None allocated

Proper Shipping Name: NONE ALLOCATED

Dangerous Goods Class: None allocated

Subsidiary risk: None allocated

Packing Group: None allocated

Road and Rail Transport:

Not classified as a Dangerous Good according to the United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals.

Air Transport:

Not classified as a Dangerous Good according to the International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Marine Transport:

Not classified as a Dangerous Good according to the International Maritime Organization Rules (Maritime Dangerous Goods Code - IMDG Code) for transport by sea.

15. REGULATORY INFORMATION

Inventory Status:

Australia (AICS)	Y
United States (TSCA)	Y
Canada (DSL)	Y
Europe (EINECS/ELINCS)	Y
Japan (MITI)	Y
South Korea (KECL)	Y

Y = all ingredients are on the inventory.

16. OTHER INFORMATION

Issue date: July, 2004

Reasons for Update:

1. Alignment with the 2nd Edition of National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2001(2003).
2. Changes and /or addition made to all sections.

Key Legend Information:

NOHSC - National Occupational Health & Safety Commission [Aust]

TWA - Time Weighted Average [Int]

STEL - Short Term Exposure Limit [Int]

AICS - Australian Inventory of Chemical Substances

EPA - Environmental Protection Agency [Int]

NIOSH - National Institute for Occupational Safety and Health [US]

AS/NZS 1715 - Selection, use and maintenance of respiratory protective devices. [Aust]

Material Safety Data Sheet

Amylase

16. OTHER INFORMATION (continued)

AS/NZS 1716 - Respiratory protective devices. [Aust]
IATA - International Aviation Transport Authority [Int]
ICAO - International Civil Aviation Organization
IM IMDG - International Maritime Dangerous Goods

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals. [Int]

EU - European Union

[Aust/NZ] = Australian/New Zealand

[Int] = International

[US] = United States of America

Principal References:

Information supplied by manufacturer, reference sources including the public domain.

Disclaimer

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions which are available on request.

© 2004 Thermo Electron Corporation. All rights reserved

License granted to make unlimited paper copies for internal use only.

END OF MSDS