

MATERIAL SAFETY DATA SHEET

CENTRE FOR STANDARDS
ADDRESS : HARELBEKESTRAAT 72
9000 GENT
BELGIUM

SECTION I : IDENTITY

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|----------------|----------------------------|
| COMMON NAME | ENTEROKINASE FIP STANDARD |
| ORIGIN | pig duodenum |
| CLASSIFICATION | 20/21, 36/37/38, 42/43, 48 |

SECTION II : HAZARDOUS INGREDIENTS

| | PERCENT | TRESHOLD LIMIT VALUE (UNITS) |
|-----------------------|---------------|---------------------------------|
| PRINCIPAL HAZARDOUS : | Pure Material | Not Established |

SECTION III : PHYSICAL DATA

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| BOILING POINT | n/a |
| SPECIFIC GRAVITY (H ₂ O = 1) | n/a |
| VAPOR PRESSURE (mm Hg) | n/a |
| PERCENT VOLATILE BY VOLUME (%) | n/a |
| VAPOR DENSITY (AIR = 1) | n/a |
| EVAPORATION RATE | n/a |
| pH | 4.7 (1% solution) |
| LOSS ON DRYING | 2 % |
| SOLUBILITY | slightly soluble (ca 30 g/l) in water practically insoluble in alcohol and ether strong oxidising agents |
| INCOMPATIBILITIES | |
| REACTIVITY IN WATER | n/a |
| APPEARANCE AND COLOUR | white, amorphous powder (hygroscopic) |
| FLASH POINT | n/a |
| FLAMMABLE LIMITS | LOWER n/a UPPER n/a |
| IN AIR % BY VOLUME | n/a |
| EXTINGUISHER MEDIA | water spray, carbon dioxide, dry chemical powder or appropriate foam |
| AUTO-IGNITION TEMPERATURE | n/a |

n/a = not applicable

SECTION IV : FIRE AND EXPLOSION HAZARD DATA

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| FLASH POINT | n/a |
| EXTINGUISHING MEDIA | Water spray, dry chemical, carbon dioxide or foam as appropriate for surrounding fire and materials. |
| SPECIAL FIRE FIGHTING PROCEDURES | As with all fires, evacuate personnel to safe area. Fire fighters should use self-contained breathing equipment and protective clothing. |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | This material is assumed to be combustible. As with all dry powders it is advisable to ground mechanical equipment in contact with dry material to dissipate the potential build-up of static electricity. When heated to decomposition material emits toxic fumes. Emits toxic fumes under fire conditions. |
| FLAMMABLE LIMITS | LOWER n/a UPPER n/a |
| STABILITY | () Unstable (x) Stable |
| CONDITIONS TO AVOID | Material is stable from a safety point of view. Strong oxidizers, alcohols, acids, caustic alkalis, heavy metal ions, and tannin. |
| HAZARDOUS DECOMPOSITION PRODUCTS | When heated to decomposition material emits toxic fumes. Emits toxic fumes under fire conditions. |
| HAZARDOUS POLYMERIZATION | () May Occur (x) Will Not Occur |

SECTION V : HEALTH HAZARD DATA

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| TRESHOLD LIMIT VALUE | None established |
| EFFECTS OF OVEREXPOSURE | LD ₅₀ (oral, mouse) > 21.500 mg/kg The usual oral adult dose is 325 mg to 1 g, taken before or with meal. High doses may cause nausea and diarrhea; the administration of pancreatin may also cause hyperuremia. Possible allergic reaction to dust if inhaled, ingested or in contact with skin. Can cause allergic skin reaction, and allergic respiratory reaction. Repeated breathing of dust could cause allergic rhinitis and/or bronchial asthma. |
| ACUTE | Eye, skin and/or respiratory tract irritation |
| CHRONIC | Possible hyper sensitization, dermatitis |

PRECAUTIONS TO CONSIDER

Persons developing hypersensitivity (anaphylactic) reactions must receive immediate medical attention. Avoid prolonged or repeated contact with skin. Material may be irritating to mucous membranes and respiratory tract. As a general rule, when handling FIP Reference Standards avoid all contact and inhalation of dust, fumes, mist, and/or vapours associated with the material. Keep container tightly closed and use with adequate ventilation; wash thoroughly after handling. Individuals working with chemicals should consider all chemicals to be potentially hazardous even if their individual hazards may be uncharacterized or unknown.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE CHEMICAL LISTED AS

Hypersensitivity to material. Dermatologic problems.

CARCINOGEN OR POTENTIAL

NATIONAL TOXICOLOGY PROGRAM

Yes No

CARCINOGEN

I.A.R.C. Monographs

Yes No

OSHA

Yes No

OTHER

n/a

ACGIH

OTHER EXPOSURE

TLV: n/a

LIMIT(S) USED: n/a

OSHA PERMISSIBLE EXPOSURE Not established

OTHER EXPOSURE LIMIT USED

Not established

EMERGENCY AND FIRST AID PROCEDURES

Remove from exposure. Remove contaminated clothing Persons developing serious hypersensitivity reactions must receive immediate medical attention. Upon eye or skin contact, flush affected area with copious quantities of water. Use general supportive measures. Obtain medical attention. If not breathing give artificial respiration. If breathing is difficult give oxygen.

1. **INHALATION**

May cause irritation of respiratory tract. Avoid inhalation. Remove to fresh air.

2. **EYES**

May cause irritation. Flush with copious quantities of water.

3. **SKIN**

May cause irritation. Flush with copious quantities of water.

4. **INGESTION**

May cause irritation. Flush out mouth with water.

SECTION VI : SPECIAL PROTECTION INFORMATION

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| RESPIRATORY PROTECTION (SPECIFY TYPE) | Anti-dust mask |
| VENTILATION | Adequate |
| LOCAL EXHAUST | Recommended |
| MECHANICAL (GENERAL) | Recommended |
| OTHER | n/a |
| PROTECTIVE GLOVES | Impervious/chemically compatible |
| EYE PROTECTION | Safety goggles |
| OTHER PROTECTIVE CLOTHING OR EQUIPMENT | Protect exposed skin, appropriate laboratory apparel |

SECTION VII : SPILL OR LEAK PROCEDURES

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|---|---|
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE | Store in tight container. This material should be handled and stored per label and other instructions to ensure product integrity. |
| OTHER PRECAUTIONS | Avoid contact with eyes, skin or clothing. Avoid breathing dust or mist. Use with adequate dust control. Wash thoroughly after handling. Wear fresh clothing daily. Wash contaminated clothing before reuse. Do not permit eating, drinking or smoking near material. |
| STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED | Wear approved respirator and chemically compatible gloves. Vacuum or sweep up spillage. Avoid dust. Place spillage in appropriate container for waste disposal. Wash contaminated clothing before reuse. Ventilate area and wash spill site. |
| WASTE DISPOSAL METHOD | Dispose of waste in accordance with all applicable Federal, State and local laws. |

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