

MATERIAL SAFETY DATA SHEET

CENTRE FOR STANDARDS ADDRESS : HARELBEKESTRAAT 72 9000 GENT BELGIUM
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SECTION I : IDENTITY

COMMON NAME	FUNGAL LIPASE FIP STANDARD
ORIGIN	rhizopus oryzae
IUB number	3.1.1.3
CAS number	9001.62.1
CLASSIFICATION	Xn (harmful), R42, S22

SECTION II : HAZARDOUS INGREDIENTS

Repeated inhalation of enzyme dust may cause sensitization and will cause allergic type reactions in sensitized individuals.

SECTION III : PHYSICAL DATA

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
SOLUBLE	readily soluble in water
INCOMPATIBILITIES	none known
REACTIVITY IN WATER	n/a
APPEARANCE AND COLOUR	tan powder with typical odour
FLASH POINT	n/a
FLAMMABLE LIMITS	LOWER n/a UPPER n/a
IN AIR % BY VOLUME	
EXTINGUISHER MEDIA	water, foam and halones
AUTO-IGNITION TEMPERATURE	n/a

n/a = not applicable

SECTION IV : FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	n/a
EXTINGUISHING MEDIA	water, foam and halones
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
FLAMMABLE LIMITS	LOWER n/a UPPER n/a
STABILITY	() Unstable (x) Stable
CONDITIONS TO AVOID	Material is stable from a safety point of view.
HAZARDOUS DECOMPOSITION PRODUCTS	not known
HAZARDOUS POLYMERIZATION	() May Occur (x) Will Not Occur

SECTION V : HEALTH HAZARD DATA

TRESHOLD LIMIT VALUE	None established
EFFECTS OF OVEREXPOSURE	LD ₅₀ (oral, rat) > 2000 mg/kg Possible allergic reaction to dust if inhaled, ingested or in contact with skin. Can cause allergic skin reaction, and allergic respiratory reaction.
ACUTE	Eye, skin and/or respiratory tract irritation
CHRONIC	Possible hyper sensitization
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**

Hypersensitivity to material. Dermatologic problems.

**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. If irritation occurs consult a doctor.
2. EYES	May cause irritation. Flush with copious quantities of water (at least 15 minutes)
3. SKIN	May cause irritation. Flush with copious quantities of water.
4. INGESTION	May cause irritation. Flush out mouth with water. If irritation occurs, seek medical advice.

In any case seek medical advice and call the nearest poison centre.

SECTION VI : SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION	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**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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