

NOTE: SEE LAST PAGE FOR CONDITIONS UNDER WHICH THE INFORMATION AND RECOMMENDATIONS OF THIS DATA ARE FURNISHED

## MATERIAL SAFETY DATA

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NA = Not Applicable

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### SECTION I - IDENTIFICATION

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**Trade Name:** Lipase OFL

Chemical Family: Acid Fungal Lipase

Chemical Name: See information in Section II

DOT HAZARD CLASS: NA

DOT LABEL(S): NA

CAS No See Information listed below in Section II

DOT PROPER SHIPPING NAME: Chemicals Not Otherwise Indexed (NOI), Non Hazardous

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### SECTION II - INFORMATION ON COMPONENTS [hazardous & other]

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INGREDIENT	CAS NO.	PERCENT	OCCUPATIONAL	HAZARD
			EXPOSURE LIMITS	
Lipase Concentrate	9001-62-1	NA	NONE ESTABLISHED	sensitization/Irritation

OTHER INGREDIENTS	CAS No.	WT%	Over 3%
Water	7732-18-5	@	Yes
Propylene glycol	57-55-6	@	Yes

@= among 5 most predominant compounds

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### SECTION III-PHYSICAL DATA

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STATE: Liquid      APPEARANCE.-Brown to amber      ODOR- Characteristic mild fermentation odor  
BOILING PT: 100-105 °C      MELTING POINT; Not Available      VAPOR DENSITY: as water  
EVAPORATION RATE (BUTYL ACETATE =1): As water      SPECIFIC GRAVITY: 1.2  
STORAGE CONDITIONS Store tightly closed in cool, dry place      POUR PT:NA

SOLUBILITY IN WATER NA (aqueous solution ) %VOLATILES NA

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## SECTION IV- FIRE AND EXPLOSION HAZARD DATA

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FLASH POINT- Not Determined (aqueous solution ) IGNITION TEMPERATURE \*

FLAMMABLE LIMITS NA (aqueous solution ) \*Information not available

No special requirements: however, self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

Extinguishing Media: no special requirements. WATER,FOAM

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## SECTION V -HEALTH HAZARD DATA

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TLV OR PEL AND SOURCE; None established

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE Individuals with known allergies, particularly to enzymes, as well as those individuals with chronic respiratory disease or particular susceptibility thereto and those with asthmatic conditions should avoid contact with dusty conditions.

PRIMARY ROUTES OF ENTRY Ingestion and Inhalation. No appreciable entry known through intact skin although irritation is possible, see above

### ACUTE AFFECTS OF OVEREXPOSURE

**SWALLOWING:** Ingestion of this material is not known to result in significant adverse health effects. Can cause irritation to mouth and throat.

**SKIN ABSORPTION:** Skin absorption not known to occur.

**INHALATION:** Can cause allergic type response in susceptible individuals upon repeated or prolonged contact.

**SKIN CONTACT:** This material can cause minor irritation following prolonged direct contact

**EYE CONTACT:** Material can cause eye irritation upon direct contact.

CHRONIC EFFECTS OF OVEREXPOSURE: May cause allergic type sensitivity in susceptible individuals resulting in delayed hyperallergic response.

CARCINOGENICITY            NTP? NO                            IARC? NO            OSHA REGULATED? NO

### EMERGENCY AND FIRST AID PROCEDURES

**SWALLOWING:** Rinse mouth with water if ingested

**SKIN:** Wash affected area with soap and remove contaminated clothing.

**INHALATION:** In case of inhalation, remove from area of exposure; if allergic symptoms occur in 0-48 hours, seek medical attention.

Supplementary information is attached concerning concentrated enzyme exposure.

### **WARNING STATEMENTS**

**CAUTION! MAY CAUSE SKIN OR EYE IRRITATION. STORE IN A COOL DRY PLACE. AVOID CONTACT WITH SKIN AND CLOTHING AND INHALATION OF AIRBOURNE PARTICLES. WASH HANDS, CLOTHING AND EQUIPMENT AFTER USE.**

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## SECTION VI- REACTIVITY DATA

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MATERIALS TO AVOID: None known

HAZARDOUS DECOMPOSITION PRODUCTS: None known

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## **SECTION VII-SPILL,LEAK AND DISPOSAL INFORMATION**

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WASTE DIAPOSAL-Dispose of this material and any absorbent material (see below) in closed containers in a sanitary chemical landfill which complies with all local, state and federal regulations.

SPILL OR LEAKAGE PROCEDURES: Dike and absorb spill with inert materials. Small quantities can be flushed thoroughly with water to appropriate chemical waste sewer( avoid high pressure washing).

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## **SECTION VIII- SAFE HANDLING AND USE INFORMATION**

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Respiratory protection: Wear suitable NIOSH approved dust masks or respiratory protector where local ventilation exhaust is not available or situations where inhalation of mist is likely to result.

Ventilation: Local ventilation required to prevent ambient air entrapment of fugitive aerosol material.

Storage and Handling: Maintain good housekeeping, avoid creating aerosols. Keep out of direct sunlight and in cool dry place as deterioration of product and loss of activity may occur under above conditions.

Eye Protection: Protecting glasses or eye shield as necessary to prevent eye contact.

Skin Protection: Long sleeved shirt, trousers, safety shoes, and impermeable gloves or as necessary to prevent skin contact

Hygienic Practices: Wash hands after handling, as well as any other affected skin areas. Avoid contact with food or food preparatory surfaces. If this occurs wash the area thoroughly with suitable detergent and water. Remove and wash contaminated clothing.

**OTHER PROTECTIVE EQUIPMENT:** Eye wash facility, whatever equipment sufficient to prevent skin contact and splash protection.

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## **SECTION IX - SPECIAL PRECAUTIONS**

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### **Keep out of Reach of Children**

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