

# MATERIAL SAFETY DATA SHEET

July 1, 1986

## SECTION I NAME

Product	LIPASE	CHEMTREC	Health	0
Chemical Synonyms	Steapsin	800-424-9300	Fire	0
Formula	Complex Protein Molecule	Day 716-226-6177	Reactivity	1
Unit(s) Size	25, 100, 500 grams	Night 716-334-4222		
C.A.S. No.	None assigned	NEPA		
SECTION II HAZARDOUS INGREDIENTS OF MIXTURES	Principal Hazardous Component(s)	%	HAZARD RATING	
			LEAST	SLIGHT
			MODERATE	HIGH
			EXTREME	EXTREME
	Lipase	100%	TLV Units	None established

Low hazard for usual laboratory handling; non-toxic.

## SECTION III PHYSICAL DATA

Melting Point (°F)	Decomposes on heating	Specific Gravity (M.O.=1)	No data available
Boiling Point (°F)	Decomposes on heating	Percent Volatile by Volume (%)	Non-volatile (NA).
Vapor Pressure (mm Hg)	Negligible as solid	Evaporation Rate	=1) Non-volatile (NA).
Vapor Density (Air = 1)	None listed		
Solubility in Water	Complete		
Appearance and Odor	Light tan amorphous powder; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable (NA).	Flammable Limits in Air % by Volume	NA	Lower	Upper
Extinguisher Media	Water spray; carbon dioxide (CO <sub>2</sub> ); dry chemical (ABC).				

## SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH-approved self-contained breathing apparatus.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials. Powder form in air is capable of creating a dust explosion.

D.O.T. NON-REGULATED

**Freys** **SCIENTIFIC**

905 HICKORY LANE MANSFIELD OHIO 44905

MSDS No. Effective Date

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA

Threshold Limited Value None established. (ACGIH 1983-84)

Effects of Overexposure May be slight skin and/or respiratory irritant upon exposure to dust. Primarily an allergic reaction. INGESTION: Low hazard. EYES: No specific hazard known. Contact may cause irritation.

Emergency and First Aid Procedures

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IRITATION: Remove to fresh air. If ill effects develop, get medical attention.  
 SKIN: Flush with water, then wash with soap and water.  
 EYES: Flush thoroughly with water. If irritation develops or persists, get medical attention.  
 INGESTION: None indicated.

## SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid	humidity, excessive temperature, heat.
Incompatibility (Materials to avoid)	Stable	Strong oxidizers, caustic materials.	
Hazardous Decomposition Products	X	Thermal decomposition or burning will produce carbon dioxide and/or carbon monoxide, oxides of Nitrogen (NO <sub>x</sub> ) and Sulfur (SO <sub>x</sub> ).	
Hazardous Polymerization	Will Not Occur	Conditions to Avoid	
May Occur	X	Not applicable.	

## SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Minimize dusting and prevent distribution of airborne dust. Vacuum clean or wet mop spill. Flush to sewer with copious amounts of water.

## Waste Disposal Method

Dispose of in an approved incinerator or in a sanitary landfill.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Discharge, treatment, or disposal may be subject to federal, state, or local laws.

Respiration Protection	None should be needed in normal laboratory handling. If dusty conditions prevail, work in a fume hood or wear a NIOSH-approved dust mask.
Ventilation	Local Exhaust Not necessary Mechanical (General) Recommended Other No
Protective Gloves	Rubber
Other Protective Equipment	Smock, apron, eye wash station, proper gloves.

## SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing Store in a cool, dry place away from strong oxidizing agents and caustic materials. Wash thoroughly after handling.

Keep container tightly closed when not in use.

## Other Precautions

Read label on container before using.  
To prolong product life, store in a dry sealed container at 4°C.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No. 1 Date 1/12/87 Approved Michael R. Scahill Chemical Safety Coordinator

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