

Safety Data Sheet



Martrex, Inc.

Section 1: Chemical Product and Company Information

Product name: FerMax Protease

Reference Number: n/a

Supplier/ Further Information: Martrex, Inc.

1107 Hazeltine Blvd,
Suite 535 MD 27,
Chaska, Minnesota 55318

Phone: 952/933-5000

Toll Free: 800/328-3627

FAX: 952/933-1889

Web: www.martrexinc.com

EPA Registration Number: n/a

CAS#: 9025-49-4

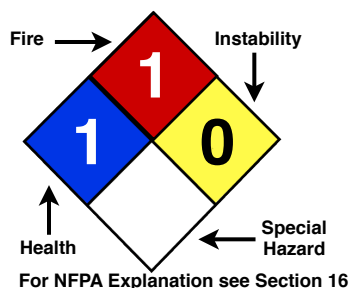
Chemical Name: n/a

Synonyms: FerMax Protease, Protease-Aspergillus niger

Chemical Family: Enzyme

Product Use: n/a

SDS Number: n/a



24 Hour Emergency Phone - Chemtrec Transport: 1-800-424-9300; Medical: 1-800-441-3637

Section 2: Hazards Identification

Emergency Overview

Danger! Potential allergic reaction and/or breathing problem if aerosol inhaled.
Causes skin irritation, and serious eye irritation

OSHA Hazards:

Target Organ Effect, Respiratory sensitizer, Irritant

Target Organs: Lungs

GHS Classification (Global Harmonized Classification see Section 16):

Skin corrosion/irritation Category 2 (H315)

Serious eye damage/eye irritation Category 2A (H319)

Sensitization, respiratory Category 1 (H334)

Specific target organ toxicity, single exposure; Respiratory tract irritation Category 3 (H335)

GHS Label, Hazards and Precautionary Statements

GHS Pictogram:



(GHS Pictogram Hazards Definitions See Section 16)

Label Signal Word: Danger

Hazard Statements:

Causes skin irritation. (H315)

Causes serious eye Irritation. (H319)

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (H334)

May cause respiratory irritation. (H335)

**24 Hour Emergency Phone - Chemtrec: 1-800-424-9300 Transportation
1-800-441-3637 Medical**

Precautionary Statements:

Prevention:

- Avoid breathing dust / fume / gas / mist / vapors / spray. (P261)
- Use only outdoors or in well-ventilated area. (P271)
- In case of inadequate ventilation, wear respiratory protection. (P284)
- Wash skin thoroughly after handling. (P264)
- Wear eye protection / face protection / protective gloves. (P280)

Response:

- IF INHALED:** Remove person to fresh air and keep comfortable for breathing. (P304+P340)
 If experiencing respiratory symptoms: Call a **POISON CENTER** or doctor/ physician. (P342+P311)
 Call a **POISON CENTER / doctor** if you feel unwell. (P312)
- IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
 If eye irritation persists: Get medical advice / attention. (P337+P313)
- IF ON SKIN:** Wash with plenty of water. (P302+P352)
 If skin irritation occurs: Get medical advice / attention. (P332+P313)
Specific treatment: Refer to supplemental First Aid Instructions in Section 4 on this label (P321)
Take off contaminated clothing and wash it before reuse. (P362+P364)

Storage:

- Store in a well-ventilated place. (P403)
- Keep container tightly closed. (P233)
- Store locked up. (P405)

Disposal Considerations:

Dispose of content/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. (P501)

Health Hazard Information:

Potential allergic reaction and/or breathing problem if aerosol inhaled.

Potential Health Effects:

Eye:

Product is not known to cause eye irritation. However, it is recommended that direct contact with eyes be avoided.

Skin:

Product is not irritating to skin. However, it is recommended that prolonged contact with skin be avoided.

Ingestion:

Ingestion of material is not known to result in significant adverse health effects.

Inhalation:

May cause sensitization by inhalation in hypersensitive individuals. Avoid aerosol generation.

Signs and Symptoms of Exposure:

The allergic symptoms are such as runny nose, cough, sneeze, languor, slight attack of fever.

See Section 11 for more Toxicological information

Section 3: Composition/Information on Ingredients

Component	CAS#	Source	Hazardous?	OSHA Limits	ACGIH Limits
FerMax Protease	9025-49-4	Aspergillus niger	no data	no data	no data

Section 4: First Aid Measures

Inhalation:

If inhaled remove from contaminated area to fresh air. Report situation. Seek medical attention if allergic response is exhibited.

**24 Hour Emergency Phone - Chemtrec: 1-800-424-9300 Transportation
 1-800-441-3637 Medical**

Eye Contact:

In case of contact with eyes, flush eyes with low pressure water for at least 15 minutes. If irritation develops, seek medical attention.

Skin Contact:

In case of contact with skin, wash skin with soap and water. Remove contaminated clothing and wash.

Ingestion:

If swallowed, rinse mouth and throat thoroughly with tap water. Drink water.

Section 5: Fire Fighting Measures

Flash Point/Ignition Temperature: n/a

Protection Against Fire & Explosions: Under normal use no special requirements.

Explosion Characteristics: n/a

Hazardous Decomposition Products: None

Suitable Fire Extinguishing Media: Water, foam, halon

Special Fire Fighting Information: Wear appropriate personal protective equipment as specified in Section 8.

Hazardous Combustion Products: See **Section 10 Reactivity** Incompatibilities.

Section 6: Accidental Release Measures**If a spill occurs:**

Spilled product should be removed immediately to avoid formation of aerosol. Vacuum or moisten with water and collect into a sealable container for disposal. Flush spill area with plenty of water (low pressure) into approved sewer. Avoid formation of aerosols and dusts. Ensure sufficient ventilation. Wash contaminated clothing.

Spill and Leak Personal Procedures: Wear appropriate personal protective as specified in Section 8.

Environmental and Regulatory Reporting: See Sections 12, 13 and 15

Section 7: Handling and Storage**Handling:**

Never handle liquid without appropriate personal protective equipments in accordance with Section 8. **Avoid formation of aerosol.** Avoid splashing and high pressure washing. Ensure good ventilation of the room when handling this product.

Storage:

Store container in a dry, cool place.

Section 8: Exposure Controls / Personal Protection**Respiratory Protection:**

None required under usual condition of use. However, if exposure potential exists, refer to NIOSH Criteria Guides to determine appropriate unit.

Hand Protection:

Impermeable gloves recommended.

Eye Protection:

Wear protective glasses or eye shield.

Hygienic Work Practices: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Section 9: Physical and Chemical Properties

Boiling Point (760mm Hg): 100 -105°C to 1.3

Evaporation rate (butyl acetate =1): As water

Appearance & Odor: Brown liquid-typical fermentation odor

Vapor Pressure at 20 degrees: As water

Solubility in water, % by weight: Completely miscible

Specific Gravity: 1.1

% Volatile by Volume: 0

Pour Point: n/a

Vapor Density (air=1): 0.62

pH Value: 3.8 - 8.0

**24 Hour Emergency Phone - Chemtrec: 1-800-424-9300 Transportation
1-800-441-3637 Medical**

Section 10: Stability and Reactivity

Stability: Stable

Hazardous Decomposition or Byproducts: n/a

Section 11: Toxicological Information

Inhalation of aerosol may cause respiratory allergy in susceptible individuals.

Oral rat LD₅₀: >2g/kg-classifies product as "non-toxic".

Carcinogen: Not classified as a carcinogen by IARC, OSHA, or NTP.

Section 12: Ecological Information

Product is readily biodegradable.

Section 13: Disposal Considerations

Waste Disposal Procedures: No special disposal method required, except that disposal of spilled material should be in accordance with applicable federal, state and local environmental regulatory requirements.

Section 14: Transport Information

Road/Rail: Not classified

Sea: Not classified

Air: Not classified

Section 15: Regulatory Information

TSCA Inventory: The active ingredient and all components of the enzyme preparation are listed on the TSCA Inventory.

Section 16: Other Information

Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists

ANSI - American National Standards Institute

CAS - Chemical Abstracts Service

CERCLA - Comprehensive Environmental Response, Compensation & Liability Act of 1980




CFR - Code of Federal Regulations

CHEMTREC - Chemical Transportation Emergency Center

CPR - Controlled Products Regulations

CWC - Chemical Weapons Convention

DOT - U.S. Department of Transportation

 NFPA Rating Explanation Guide 					
Rating Number	Health Hazard	Flammability Hazard	Instability Hazard	Rating Symbol	Special Hazard
4	Can be lethal	Will vaporize and readily burn at normal temperatures	May explode at normal temperatures and pressures	ALK	Alkaline
3	Can cause serious or permanent injury	Can be ignited under almost all ambient temperatures	May explode at high temperature or shock	ACID	Acidic
2	Can cause temporary incapacitation or residual injury	Must be heated or high ambient temperature to burn	Violent chemical change at high temperatures or pressures	BIO	BioHazard
1	Can cause significant irritation	Must be preheated before ignition can occur	Normally stable. High temperatures make unstable	COR	Strong Corrosive
0	No Hazard	Will not burn	Stable	CRYO	Cryogenic
				OXY	Oxidizer
					Radioactive
				W	Reacts violently or explosively with water
				W OX	Reacts violently or explosively with water or oxidizer

This chart for reference only - For complete specifications consult the NFPA Standard

24 Hour Emergency Phone - Chemtrec: 1-800-424-9300 Transportation 1-800-441-3637 Medical

DSL - Canadian Domestic Substance List
EHS - Extremely Hazardous Substance
EPA - U.S. Environmental Protection Agency
HMIS - Hazardous Material Identification System
IARC - International Agency for Research on Cancer
LEL/UEL - Lower and Upper Explosive Limit
mg/m³ - Milligrams per cubic meter
NAERG - North American Emergency Response Guidebook
NIOSH - National Institute of Occupational Safety and Health
NFPA - National Fire Protection Association
NTP - National Toxicology Program
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limit (set by OSHA)
PPE - Personal Protective Equipment
RCRA - Resource Conservation and Recovery Act of 1976
SARA - Superfund Amendments and Reauthorization Act
SDS - Safety Data Sheet
STEL - Concentration to which workers can be exposed continuously for a **short** period of time without suffering from irritation, irreversible tissue damage or narcosis of sufficient degree to increase the likelihood of accidental injury, impair self-rescue or materially reduce work efficiency.
TDG (Canadian): Transport of Dangerous Goods Regulations
TLV - Threshold Limit Value (set by ACGIH)
TWA - 8-hour Time Weighted Average
TSCA - US Toxic Substance Control Act
WHMIS - Workplace Hazardous Material Information System

SDS Issue Date: 4-12-2014
Revised Date: 4-12-2014
Supersedes: 9-18-2012

Disclaimer: Martrex, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. **MARTREX, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MARTREX, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**

GHS Pictograms and Hazards

<p>Health Hazard</p>  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> • Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> • Skin Corrosion/ Burns • Eye Damage • Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> • Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> • Aquatic Toxicity 	<p>Skull and Crossbones</p>  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)