

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name Elastase, Porcine Pancreatic

Other means of identification

Product Code(s) A4126

UN/ID no.

Synonyms No information available

Product Use

For Laboratory Research Use Only.

Supplier/Manufacturer

Biomatik Corporation
9-140 McGovern Dr.
Cambridge, Ontario N3H 4R7
Canada

Telephone Number 1-519-489-7195

E-mail Address info@biomatik.com

Emergency Telephone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2a
Respiratory sensitisation	Category 1
Specific target organ toxicity (Single exposure)	Category 3

Label elements

Emergency Overview

Danger

Hazard statements

H315 - Causes skin irritation

H319 - Eye Irritation

H334 – Respiratory Sensitisation

H335- May cause damage to organs through Single Exposure



Appearance

Physical State Powder

Odor

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not get in eyes, on skin, or on clothing
 Wear protective gloves/protective clothing/eye protection/face protection
 Use only outdoors or in a well-ventilated area
 Contaminated work clothing should not be allowed out of the workplace
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking
 Keep cool

Precautionary Statements - Response

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 Wash skin thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/ eye protection/ face protection.
 Wear respiratory protection.
 IF ON SKIN: Wash with plenty of water.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 IF IN EYES: Rinse cautiously with water for several minutes.Remove contact lenses, if present and easy to do. Continue rinsing.
 If skin irritation occurs: Get medical advice/ attention.
 If eye irritation persists: Get medical advice/ attention.
 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
 Take off contaminated clothing and wash it before reuse.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up. Dispose of contents/ container to an approved waste disposal plant.

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not regulated

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
Elastase, Porcine Pancreatic	39445-21-1	254-453-6	95-100	Not applicable

4. FIRST AID MEASURES

First Aid Measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion	Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical, CO₂, water spray or regular foam.

Unsuitable Extinguishing Media No information available.

Specific Hazards Arising from the Chemical

No information available.

Hazardous Combustion Products

Explosion Data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal protection Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete. Cover with an activated carbon adsorbent.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Recommended storage temperature 2 - 8 °C

Incompatible Products Strong oxidizers. Metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Elastase, Porcine Pancreatic	-	-	-

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and Body Protection Wear protective gloves/clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Powder	Odor	No information available
Appearance		Odor Threshold	No information available
Color	No information available		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	No information available		
Melting point/freezing point	No information available		
Boiling Point/Range	No information available		
Flash Point (High in °C)	No information available		
Evaporation Rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor pressure	No information available		
Vapor Density	No information available		
Specific Gravity	1.14		

Water Solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive Properties	No information available
Oxidizing Properties	No information available

Other Information

Softening Point	No information available
Molecular Weight	No information available
VOC Content	No information available
Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Strong oxidizers. Metals.

Hazardous Decomposition Products

Decomposition products under fire conditions

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	Toxic by inhalation.
Eye Contact	Irritating to eyes.
Skin Contact	May be fatal if absorbed through skin.
Ingestion	Toxic if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Elastase, Porcine Pancreatic	-	-	-

Information on toxicological effects**Symptoms** No information available.**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Elastase, Porcine Pancreatic	-	-	-	-

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Elastase, Porcine Pancreatic	-	-	-

Persistence and Degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Chemical Name	Partition coefficient
Elastase, Porcine Pancreatic	-

Other Adverse Effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Dispose of material in accordance with all federal, state, and local regulations.

Contaminated Packaging Do not re-use empty containers.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Elastase, Porcine Pancreatic	-	-	-	-

Chemical Name	California Hazardous Waste Status
Elastase, Porcine Pancreatic	-

14. TRANSPORT INFORMATION

DOT Not dangerous good

IATA Not dangerous good

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	SARA 313 - Threshold Values %
Elastase, Porcine Pancreatic	-

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Elastase, Porcine Pancreatic	-	-	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Elastase, Porcine Pancreatic	-	-	-

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

Chemical Name	California Prop. 65
Elastase, Porcine Pancreatic	-

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Elastase, Porcine Pancreatic	-	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not regulated

16. OTHER INFORMATION**Disclaimer**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet