

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name TRYPSIN

Other means of identification

Product Code(s) A4027

Synonyms No information available

Product Use For Laboratory Research Use Only.

Supplier/Manufacturer

Biomatik Corporation
4 Third Ave
Kitchener, Ontario N2C 1N6
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 not hazardous, according to GHS.

Potential Health Effects

Target Organs: Non known

Eyes: May cause irritation..

Skin: May cause irritation.

Inhalation: May cause irritation to respiratory tract.

Ingestion: May cause irritation to GI tract

CHRONIC HEALTH HAZARDS: none known

Hazards not otherwise classified (HNOC)

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
Trypsin	9002-07-07	-	>70%	Not applicable

4. FIRST AID MEASURES

First Aid Measures

Eye Contact: Flush eyes with plenty of water for at least 15 minutes

Skin Contact: Flush the area immediately with plenty of soap and water while removing contaminated clothing and shoes.

Inhalation: Remove the victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. GET MEDICAL ATTENTION.

Ingestion: Wash mouth with water

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use water spray, foam, dry chemical, or carbon dioxide.

Explosion Data: Not available

Flammable: No

Flash Point: N/A

Autoignition Temperature: N/A

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal protection: Ventilate the area, Wear appropriate protective equipment

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: Ventilate the area. Wear appropriate protective equipment. Cover with dry lime or soda. Sweep and place in a closed container

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling: Avoid contact. Do not get in eyes, on skin, or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage: Refrigerate

Incompatible Products: Not known

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
TRYPSIN			

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: Use OSHA/MSHA approved respirator

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	Solid	Odor	No information available
Appearance	Beige Powder	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	No information available	
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
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

Stability: Stable at normal room temperature and pressure

Conditions to avoid: dust generation, excessive heat and moisture.

Incompatibility: strong oxidizing agents.

Hazardous Decomposition Products: carbon dioxide, carbon monoxide and sulfur oxides.

Hazardous Polymerization: Has not been reported

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	There is no data available for this product
Eye Contact	There is no data available for this product
Skin Contact	There is no data available for this product
Ingestion	There is no data available for this product

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Trypsin	-	-	-

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
Trypsin	-	-	-	-

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

Unknown Acute Toxicity

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Toxicity to Fish	Crustacea
Trypsin	-	-	-

Persistence and Degradability**Bioaccumulation/Accumulation**

Chemical Name	Partition coefficient
Trypsin	-

Other Adverse Effects No information available**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

Waste Disposal Method

Contaminated Packaging

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Trypsin	-	-	-	-

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Trypsin	-	-	-	-

Chemical Name	California Hazardous Waste Status
Trypsin	-

14. TRANSPORT INFORMATION**DOT** Not regulated**IATA** Not regulated**15. REGULATORY INFORMATION**

International Inventories

TSCA	listed
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

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 that 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 %
Trypsin	-

SARA 311/312 Hazard Categories

Acute Health Hazard
 Chronic Health Hazard
 Fire Hazard
 Sudden Release of Pressure Hazard
 Reactive Hazard

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
Trypsin	-	-	-	-

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
Trypsin	-	-	-

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

Chemical Name	California Prop. 65
Trypsin	-

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Trypsin	-	-	-

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