

# SAFETY DATA SHEET

Complex Proteomics Standard, Part Number 400510

## Section 1. Identification

### 1.1 Product identifier

**Product name** : Complex Proteomics Standard, Part Number 400510  
**Part no. (chemical kit)** : 400510  
**Part no.** : Proteomics Grade Trypsin 204310-51  
 Pfu Protein Extract Proteomics Standard 400510-51  
**Validation date** : 10/31/2023

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** :  Analytical reagent.  
 Proteomics Grade Trypsin 2 x 0.1 mg  
 Pfu Protein Extract Proteomics Standard 0.5 mg

### 1.3 Details of the supplier of the safety data sheet

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
 5301 Stevens Creek Blvd  
 Santa Clara, CA 95051, USA  
 800-227-9770

### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

**OSHA/HCS status** : Proteomics Grade Trypsin This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
 Pfu Protein Extract While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product.  
 Proteomics Standard This SDS should be retained and available for employees and other users of this product.

### Classification of the substance or mixture

Proteomics Grade Trypsin  
 H315 COMBUSTIBLE DUSTS  
 H319 SKIN IRRITATION - Category 2  
 H334 EYE IRRITATION - Category 2A  
 H335 RESPIRATORY SENSITIZATION - Category 1  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

### 2.2 GHS label elements

**Hazard pictograms** : Proteomics Grade Trypsin




**Signal word** : Proteomics Grade Trypsin Danger  
 Pfu Protein Extract Proteomics Standard No signal word.

## Section 2. Hazards identification

<b>Hazard statements</b>	: Proteomics Grade Trypsin	H315 - Causes skin irritation. H319 - Causes serious eye irritation. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 - May cause respiratory irritation. May form combustible dust concentrations in air. No known significant effects or critical hazards.
	Pfu Protein Extract Proteomics Standard	
<b>Precautionary statements</b>		
<b>Prevention</b>	: Proteomics Grade Trypsin	P280 - Wear protective gloves. Wear eye or face protection. P284 - Wear respiratory protection. P261 - Avoid breathing dust or mist. P264 - Wash thoroughly after handling. Not applicable.
	Pfu Protein Extract Proteomics Standard	
<b>Response</b>	: Proteomics Grade Trypsin	P304 + P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention. Not applicable.
	Pfu Protein Extract Proteomics Standard	
<b>Storage</b>	: Proteomics Grade Trypsin	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
	Pfu Protein Extract Proteomics Standard	Not applicable.
<b>Disposal</b>	: Proteomics Grade Trypsin	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Pfu Protein Extract Proteomics Standard	Not applicable.
<b>Supplemental label elements</b>	: Proteomics Grade Trypsin	Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent dust accumulation.
	Pfu Protein Extract Proteomics Standard	None known.
<b>2.3 Other hazards</b>		
<b>Hazards not otherwise classified</b>	: Proteomics Grade Trypsin	None known.
	Pfu Protein Extract Proteomics Standard	None known.



## Section 4. First aid measures

<b>Skin contact</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	:  Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Causes serious eye irritation. No known significant effects or critical hazards.
<b>Inhalation</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. No known significant effects or critical hazards.
<b>Skin contact</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Causes skin irritation. No known significant effects or critical hazards.
<b>Ingestion</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Adverse symptoms may include the following: pain or irritation watering redness No specific data.
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## Section 4. First aid measures

<b>Inhalation</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma No specific data.
<b>Skin contact</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Adverse symptoms may include the following: irritation redness No specific data.
<b>Ingestion</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	No specific data. No specific data.

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.  In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
<b>Specific treatments</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	No specific treatment. No specific treatment.
<b>Protection of first-aiders</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Use dry chemical powder. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture. None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	May form explosible dust-air mixture if dispersed. No specific fire or explosion hazard.
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## Section 5. Fire-fighting measures

### Hazardous thermal decomposition products

: Proteomics Grade Trypsin

Decomposition products may include the following materials:

carbon dioxide  
carbon monoxide  
nitrogen oxides  
phosphorus oxides

Pfu Protein Extract Proteomics Standard

Decomposition products may include the following materials:

carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
phosphorus oxides

### 5.3 Advice for firefighters

#### Special protective actions for fire-fighters

: Proteomics Grade Trypsin

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Pfu Protein Extract Proteomics Standard

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

#### Special protective equipment for fire-fighters

: Proteomics Grade Trypsin

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Pfu Protein Extract Proteomics Standard

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

: Proteomics Grade Trypsin

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Pfu Protein Extract Proteomics Standard

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

## Section 6. Accidental release measures

<b>For emergency responders</b>	: Proteomics Grade Trypsin	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Pfu Protein Extract Proteomics Standard	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
<b>6.2 Environmental precautions</b>	: Proteomics Grade Trypsin	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Pfu Protein Extract Proteomics Standard	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>6.3 Methods and materials for containment and cleaning up</b>		
<b>Methods for cleaning up</b>	: Proteomics Grade Trypsin	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
	Pfu Protein Extract Proteomics Standard	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	: Proteomics Grade Trypsin	Put on appropriate personal protective equipment (see Section 8). Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container. Put on appropriate personal protective equipment
	Pfu Protein Extract Proteomics	

## Section 7. Handling and storage

<p><b>Advice on general occupational hygiene</b></p>	<p>Standard : Proteomics Grade Trypsin</p> <p>Pfu Protein Extract Proteomics Standard</p>	<p>(see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.</p>
<p><b>7.2 Conditions for safe storage, including any incompatibilities</b></p>	<p>: Proteomics Grade Trypsin</p> <p>Pfu Protein Extract Proteomics Standard</p>	<p>Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.</p>
<p><b>7.3 Specific end use(s)</b></p> <p><b>Recommendations</b></p> <p><b>Industrial sector specific solutions</b></p>	<p>: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard</p> <p>: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard</p>	<p>Industrial applications, Professional applications. Industrial applications, Professional applications.</p> <p>Not available. Not available.</p>

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Proteomics Grade Trypsin Trypsin	None.

#### Biological exposure indices

No exposure indices known.

### 8.2 Exposure controls

#### Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

#### Individual protection measures

##### Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

##### Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

#### Skin protection

##### Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

##### Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

<b>Physical state</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Solid. [Crystals./ Powder.] Solid. [Enzyme.]						
<b>Color</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Clear. Yellow. Not available.						
<b>Odor</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Odorless. Not available.						
<b>Odor threshold</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not available.						
<b>pH</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not available.						
<b>Melting point/freezing point</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	115°C (239°F) Not available.						
<b>Boiling point, initial boiling point, and boiling range</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not available.						
<b>Flash point</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not applicable. Not applicable.						
<b>Evaporation rate</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not available.						
<b>Flammability</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not available.						
<b>Lower and upper explosion limit/flammability limit</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not applicable. Not applicable.						
<b>Vapor pressure</b>	: Not available.							
<b>Relative vapor density</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not applicable. Not applicable.						
<b>Relative density</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not available.						
<b>Solubility(ies)</b>	: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 2px;"><b>Media</b></th> <th style="text-align: left; padding: 2px;"><b>Result</b></th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">Proteomics Grade Trypsin water</td> <td style="padding: 2px;">Soluble</td> </tr> <tr> <td style="padding: 2px;">Pfu Protein Extract Proteomics Standard water</td> <td style="padding: 2px;">Soluble</td> </tr> </tbody> </table>	<b>Media</b>	<b>Result</b>	Proteomics Grade Trypsin water	Soluble	Pfu Protein Extract Proteomics Standard water	Soluble	
<b>Media</b>	<b>Result</b>							
Proteomics Grade Trypsin water	Soluble							
Pfu Protein Extract Proteomics Standard water	Soluble							
<b>Partition coefficient: n-octanol/water</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not applicable.						

## Section 9. Physical and chemical properties and safety characteristics

<b>Auto-ignition temperature</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not applicable. Not applicable.
<b>Decomposition temperature</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not available.
<b>Viscosity</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not applicable. Not applicable.
<b><u>Particle characteristics</u></b>		
<b>Median particle size</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	Not available. Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	The product is stable. The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Proteomics Grade Trypsin   Pfu Protein Extract Proteomics Standard	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation. No specific data.
<b>10.5 Incompatible materials</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Reactive or incompatible with the following materials: oxidizing materials May react or be incompatible with oxidizing materials.
<b>10.6 Hazardous decomposition products</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Proteomics Grade Trypsin Trypsin	LD50 Oral	Rat	>5 g/kg	-

#### Irritation/Corrosion

Not available.

#### Conclusion/Summary

**Skin** :  May cause skin sensitization.

#### Sensitization

Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Proteomics Grade Trypsin Trypsin	Category 3	-	Respiratory tract irritation


#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

#### Information on the likely routes of exposure

 Proteomics Grade Trypsin  
Pfu Protein Extract Proteomics Standard

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.  
Not available.

#### Potential acute health effects

##### Eye contact

: Proteomics Grade Trypsin  
Pfu Protein Extract Proteomics Standard

Causes serious eye irritation.  
No known significant effects or critical hazards.

##### Inhalation

: Proteomics Grade Trypsin  
  
Pfu Protein Extract Proteomics Standard

May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
No known significant effects or critical hazards.

##### Skin contact

: Proteomics Grade Trypsin  
Pfu Protein Extract Proteomics Standard

Causes skin irritation.  
No known significant effects or critical hazards.

## Section 11. Toxicological information

<b>Ingestion</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.
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### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Adverse symptoms may include the following: pain or irritation watering redness No specific data.
<b>Inhalation</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma No specific data.
<b>Skin contact</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Adverse symptoms may include the following: irritation redness No specific data.
<b>Ingestion</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	No specific data. No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

#### Long term exposure

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

#### Potential chronic health effects

<b>General</b>	: Proteomics Grade Trypsin  Pfu Protein Extract Proteomics Standard	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Mutagenicity</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: Proteomics Grade Trypsin Pfu Protein Extract Proteomics Standard	No known significant effects or critical hazards. No known significant effects or critical hazards.

### Numerical measures of toxicity

## Section 11. Toxicological information

### Acute toxicity estimates

N/A

## Section 12. Ecological information

### 12.1 Toxicity

Not available.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Proteomics Grade Trypsin Trypsin	OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test	100 % - Readily - 29 days	-	Activated sludge

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

12.5 Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

**DOT / TDG / Mexico / IMDG / IATA** : Not regulated.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

#### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

#### SARA 311/312

<b>Classification</b>	: Proteomics Grade Trypsin	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
	Pfu Protein Extract Proteomics Standard	Not applicable.

#### Composition/information on ingredients

Name	%	Classification
<b>Proteomics Grade Trypsin</b> Trypsin	100	COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

#### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

## Section 15. Regulatory information

### California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia</b>	: Not determined.
<b>Canada</b>	: Not determined.
<b>China</b>	: All components are listed or exempted.
<b>Japan</b>	: <input checked="" type="checkbox"/> <b>Japan inventory (CSCL)</b> : Not determined. <b>Japan inventory (ISHL)</b> : All components are listed or exempted.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: Not determined.

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> <b>Proteomics Grade Trypsin</b> COMBUSTIBLE DUSTS SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A RESPIRATORY SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	On basis of test data Expert judgment Expert judgment Expert judgment Expert judgment

### History

<b>Date of issue/Date of revision</b>	: 10/31/2023
<b>Date of previous issue</b>	: 09/03/2020
<b>Version</b>	: 6

## Section 16. Other information

### Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- UN = United Nations

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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