

Section 1: Identification

Product Name COLLAGENASE
Commercial Name Not available.
Product Use Life Science Research Applications
Restrictions On Use Not available.

Product Code 30-2877

Company PCCA
 9901 South Wilcrest
 Houston, TX 77099
 Phone: 1-800-331-2498
 Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Skin Irritation (Category 2) Eye Irritation (Category 2A) Respiratory Sensitization (Category 1) Skin Sensitization (Category 1) Specific target organ toxicity - (single exposure) Category 3

Signal Word WARNING

Hazard Statement(s) Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention	P280 - Wear protective gloves/protective clothing/eye protection/face protection
Response	P302 + P352 - IF ON SKIN: Wash with plenty of soap and water P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention P337 + P313 - If eye irritation persists: Get medical advice/attention P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P312 - Call a POISON CENTER or doctor/physician if you feel unwell P332 + P313 - If skin irritation occurs: Get medical advice/attention
Storage	Not available.
Disposal	Not available.

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components COLLAGENASE
% By Weight 100
CAS# 9001-12-1
Molecular Weight 105.00
Chemical Formula Not available.
Synonym(s) Clostridiopeptidase A

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
COLLAGENASE	9001-12-1	100	Not available.	LD50: Not available. LC50: Not available.

Section 4: First-Aid Measures

Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Symptoms/Effects	
Acute	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Delayed	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Immediate Medical Attention

Treat symptomatically

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.**Unsuitable Extinguishing Media**

Not available

Products of CombustionCarbon monoxide (CO), Carbon dioxide (CO₂).**Firefighters Special Equipment and Precautions**

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

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Avoid dust formation. Use personal protective equipment as required. Environmental precautions: Should not be released into the environment. See Section 12 for additional Ecological Information. Methods and material for containment and cleaning up: Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Handling: Avoid dust formation. Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation Storage: Keep refrigerated. Keep at temperature not exceeding 4°C. Keep container tightly closed Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice

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

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Engineering Controls

Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal Protection

Eye Protection: Goggles (European standard - EN 166) Hand Protection: Protective gloves Skin and body protection: Long sleeved clothing Inspect gloves before use. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove gloves with care avoiding skin contamination. Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

Section 9: Physical and Chemical Properties

Appearance	Dark yellow powder solid		
Odor	Not available		
Odor Threshold	Not available.		
Melting Point	Not available.	pH	Not available.
Freezing Point	Not available.	Vapor Pressure	Not applicable.
Boiling Point/Range	Not available.	Vapor Density	Not available.
Decomposition temperature	Not available.	Viscosity	Not available.
Partition Coefficient: n-octanol/water	Not available.	Evaporation Rate	Not available.
Flash Point	Not available.	Autoignition temperature	Not available.
Flammability	Not available.	Flammability or Explosive Limits:	
		Lower	Not available.
		Upper	Not available.
Solubility(ies)	Soluble in water		
Other	Not available.		

Section 10: Stability and Reactivity

Reactivity	Not available.
Chemical Stability	Stable under normal conditions
Hazardous Polymerization	Hazardous polymerization does not occur
Conditions to Avoid	Avoid dust formation. Incompatible products. Excess heat. Exposure to moisture
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO). Carbon dioxide (CO ₂)

Section 11: Toxicological Information

RTECS	Not available.
Acute Toxicity	Not available
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Irritation	Category 2
Respiratory or Skin Sensitization	Category 1
Germ Cell Mutagenicity	Not available.
Carcinogenicity	Not available.
Reproductive Toxicity	Not available.
Routes of Entry	Not available
Symptoms Related to Exposure	Category 3 Respiratory system. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Potential Health Effects

Not available.

Target Organ(s)

Not available.

Section 12: Ecological Information**Ecotoxicity**

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Persistence and Degradability

Soluble in water, Persistence is unlikely, based on information available.

Bioaccumulative Potential

Bioaccumulation is unlikely

Mobility in Soil

The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility.

Highly mobile in soils

Other Adverse Effects

Not available.

Section 13: Disposal Considerations**Waste Disposal**

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations

Disposal of Container

Dispose of this container to hazardous or special waste collection point

Other Considerations

Not available.

Section 14: Transport Information**DOT Classification**

Not a DOT controlled material (United States). This material is not classified dangerous good according to international transportation regulations (ADR/RID-IMDG-ICAO/IATA).

Section 15: Regulatory Information**Regulations**

Not available

Other

Not available.

Section 16: Other Information

The information contained in this MSDS relates only to the materdoes not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). Worfaith, from sources believed to be accurate, however, assumes no liabilcuracy or completeness. All Worthington products are supplied for manufacturing, researchnel intending to use any of these products for medical investigationsuch use and for compliance with the pertinent regulations of the United States Food & Drug -FDA) and other regulations. We do not assume liability for damages resulting from the handling, use and/or dir use in violation of patent or other rights or reliance upon this information.