



CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.

Product name: Collagenase

Issue date: 22-August-2023


Revision date: 22-August-2023

Version #: 02

SECTION 1 Chemical product and company identification

Chinese name of chemical	胶原酶
English name of chemical	Collagenase
Company Name	UltraVision Technology Limited
Address	Room 1210, Unit 3, Long De Zi Jin mansion, No. 186 Li Tang Road, Changping district, Beijing ,PR China
Telephone	17717469190
Website	dovetailgenomics.com
Emergency phone number	+86 4001 2001 74
Access code	334943
Recommended use and Limitations on use	
Recommended use	Molecular Biology Kit.
Limitations on use	Use in accordance with manufacturer's recommendations.
Issue date	22-August-2023
Revision date	22-August-2023
Supersedes date	22-August-2023

SECTION 2 Hazards identification

Emergency overview	Causes serious eye irritation. Causes skin irritation. May cause irritation to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
GHS hazard categories		
Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
Label elements		
Pictograms		
Signal word	Danger	
Hazard statement		
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.	
Precautionary statement		
Prevention		
P261	Avoid breathing mist/vapors.	
P264	Wash thoroughly after handling.	
P271	Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves/eye protection/face protection.	
P284	Wear respiratory protection.	
Response		
P302 + P352	IF ON SKIN: Wash with plenty of water.	
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312

Call a POISON CENTER/doctor if you feel unwell.

P332 + P313

If skin irritation occurs: Get medical advice/attention.

P337 + P313

If eye irritation persists: Get medical advice/attention.

P342 + P311

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P362 + P364

Take off contaminated clothing and wash it before reuse.

Safety storage

P403 + P233

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

P405

Store locked up.

Disposal

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

Physical and chemical hazards

The product is stable and non-reactive under normal conditions of use, storage and transport. No unusual fire or explosion hazards noted.

Health hazards

May cause irritation to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes skin irritation. Expected to be a low ingestion hazard. Causes serious eye irritation.

Environmental hazards

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Supplemental information

80% of the mixture consists of component(s) of unknown acute toxicity. 80% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

SECTION 3 Composition/information on ingredients**Substance/mixture**

Mixture

Chemical name**Concentration (%)****CAS Number**

胶原酶

20 - 40

9001-12-1

Collagenase

Other components below reportable levels

60 - 80

SECTION 4 First aid measures**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a poison center or doctor/physician.

Skin contact

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms and health effects

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. May cause allergic respiratory reaction. Difficulty in breathing. Skin irritation. May cause redness and pain.

Personal protection for first-aid responders

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Notes to physician

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5 Fire-fighting measures**Extinguishing media**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Extinguishing media to avoid

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards

During fire, gases hazardous to health may be formed.

Special fire fighting procedures

Move containers from fire area if you can do so without risk.

Protection of fire-fighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

General fire hazards

No unusual fire or explosion hazards noted.

SECTION 6 Accidental release measures**Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.

For emergency responders	Keep unnecessary personnel away. Ensure adequate ventilation. Avoid breathing mist/vapors. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
Clean-up methods and materials and containment measures	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Clean up in accordance with all applicable regulations.
Prevention of secondary hazards	

SECTION 7 Handling and storage

Handling	Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Storage	Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8 Exposure controls/personal protection

Exposure limits

No exposure limits noted for ingredient(s).

Biological limit values	No biological exposure limits noted for the ingredient(s).
Monitoring methods	Follow standard monitoring procedures.
Engineering measures	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Provide eyewash station and safety shower.
Personal protective equipment	
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Eye protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear appropriate chemical resistant clothing.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9 Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Density	Not available.

Solubility(ies)

Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Flammability (solid, gas)	Not applicable.
Other data	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

SECTION 10 Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11 Toxicological information

Acute toxicity	80% of the mixture consists of component(s) of unknown acute toxicity.
Routes of exposure	Inhalation. Skin contact. Eye contact.
Symptoms	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. May cause allergic respiratory reaction. Difficulty in breathing. Skin irritation. May cause redness and pain.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitizer	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
Toxic to reproduction	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity following single exposure	May cause respiratory irritation.
Specific target organ toxicity following repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	None known.

SECTION 12 Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation	No data available.
Mobility in soil	No data available for this product.
Other hazardous effects	No data available.

SECTION 13 Disposal considerations

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
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Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Local disposal regulations Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

SECTION 14 Transport information

CNDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not established.

**Annex II of MARPOL 73/78 and
the IBC Code**

SECTION 15 Regulatory information

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Not regulated.

Regulations on the Control over Safety of Dangerous Chemicals

Not regulated.

Provision on the Environmental Administration of New Chemical Substances

China Inventory of Existing Chemical Substances

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Other regulations This safety data sheet conforms to the following laws, regulations and standards:
Measures for the Safe Use of Chemicals in Workplaces
General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009)
Regulations on Labor Protection in Workplaces Where Toxic Products Are Used
Packing Symbol of Dangerous Goods(GB190-2009)
Regulations on the Control over Safety of Dangerous Chemicals
Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)
Packing - Pictorial Marking for Handling of Goods (GB/T191-2008)

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto Protocol

Not applicable.

Basel Convention

Not applicable.

SECTION 16 Other information

References

EPA: AQUIRE database
GB6944-2012: Classification and Code of Dangerous Goods.
GB12268-2012: List of Dangerous Goods.
IARC Monographs. Overall Evaluation of Carcinogenicity
NLM: Hazardous Substances Data Base

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