

Material Safety Data Sheet

according to Regulation (EC) No. 1907/2006/EG,
Article 31



GENAXXON
b i o s c i e n c e

Product number: C4264

Product name:

Trypsin (1:250 from porcine pancreas)

1. Identification of the substance/preparation and of the company

1.1. Product identifier

Product Name: L Trypsin (1:250 from porcine pancreas)

Catalogue-No.: C4264

CAS Number: 9002-07-7

EC Number: 232-650-8

Index-Number: 647-010-00-7

REACH-No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

No further relevant information available.

Application of the substance/the preparation

Laboratory chemical

Chemical analytics

Cell culture applications

Not approved for human or animal diagnostic or therapeutic procedures.

Not for household use.

Not for consumption

1.3. Details of the supplier of the safety data sheet

Manufacturer /Supplier:

Genaxxon bioscience GmbH, Söflinger Str. 70, 89077 Ulm/Germany.

Tel.: +49 (0)731 3608 123, Fax: +49 731 3608 962, info@genaxxon.com

Further information available from: General Management

Emergency telephone number: +49 (0)731 3608 123 (Monday till Friday: 7:30 – 18:30 o'clock)

NOTE: If this product is a kit or supplied with more than one material, please refer to the MSDS for each component for hazard information.

Product Use:

This product is for laboratory research use only and are not intended for human or animal diagnostics, therapeutics or other clinical uses.

2. Hazardous identification

2.1. Classification of the substance/preparation/mixture

Classification according to Regulation (EC) No1272/2008:

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

Hazard pictograms



GHS07 GHS08

Signal word: Danger

Hazard statements

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 statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

2.3. Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

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3. Composition/Information on ingredients

Chemical characterization: Substance

CAS No.	Index No.	EC No.:	Substance name	Weight % content (or range)	SCL/ M-factor/ ATE
9002-07-7	647-010-00-7	232-650-8	Trypsin	>95%	----

4. First Aid Measures

4.1. Description of first aid measures

General information: Immediately remove any clothing soiled by the product. Involve doctor immediately.

After inhalation: Supply fresh air or oxygen; call for doctor. In case of unconsciousness place patient stably in side position for transportation. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

After skin contact: Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Rinse out mouth. Call a doctor immediately.

4.2. Most important symptoms and effects, both acute and delayed: No further relevant information available.

4.3. Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

5. Fire-fighting Measures

5.1. Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: Water with full jet.

5.2. Special hazards arising from the substance or mixture: Non-combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

In case of fire, the following can be released:

Carbon oxides (CO, CO₂)

Nitrogen oxides (NO_x)

5.3. Advice for fire-fighters:

Protective equipment: Wear self-contained respiratory protective device.

No special measures necessary.

Additional information:

Contain escaping vapours with water.

Dispose off fire debris and contaminated fire fighting water in accordance with official regulations.

6. Accidental release Measures

6.1. Personal precautions, protective equipment and emergency procedure:

Use personal protective equipment. Avoid formation of dust. Avoid substance contact. Ensure adequate ventilation.

6.2. Environmental precautions: No special measures required.

6.3. Methods and materials for containment and cleaning up:

Pick up mechanically. Avoid formation of dust. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation. Clean up affected area. Dispose off the material collected in accordance to regulations.

6.4. Reference to other sections:

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage

7.1. Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace. Prevent formation of dust. Any unavoidable deposit of dust must be regularly removed.

Information about fire – and explosion protection: The product is not flammable.

7.2. Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Keep container tightly sealed.

Further information about storage conditions: Keep container tightly closed.

Recommended storage temperature: -20°C.

Avoid repeated freeze-thawing cycles. Light sensitive.

Storage class: 13

7.3. Specific end use(s): No further relevant information available.

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8. Exposure controls/personal protection

8.1. Control parameters

Ingredients with limit values that require monitoring at the workplace: not required.

DNELs		
Inhalative	Long-term – local effects, worker	0.06mg/m3
	Long-term – local effects, general population	0.015mg/m3

PNECs	
Aquatic compartment – freshwater	0.0025 mg/L
Aquatic compartment - marine water	0.00025 mg/L
Aquatic compartment - water, intermittent releases	0.025 mg/L
Sewage treatment plant	65 mg/L

Additional information: The list valid during the making were used as basis.

Additional information about design of technical facilities: No further data; see item 7.

8.2. Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with eyes and skin.

Change contaminated clothing.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Required when dusts are generated.

Filter P2 (EN 143).



Required when dusts are generated

Protection of hands:



Protective gloves (EN 374)

The glove material has to be impermeable and resist ant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for permeation: Level: >480 min.

As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Value for the permeation: Level ≥ 480 min.

Eye/face protection:



Safety glasses (EN 166)

Body protection:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

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9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

General Information

Appearance

Form: Solid
Colour: White
Odour: Odourless

pH value at 20°C: 3-6 (1%)

Change in conditions

Melting point/Melting range: Not determined
Boiling point/Boiling range: Undetermined

Flash point: Not applicable

Flammability (solid, gaseous): Product is not flammable

Decomposition temperature: Not determined

Self-ignition: Product is not self-igniting

Danger of explosion: Product does not present an explosion hazard

Explosion limits:

Lower: Not determined
Upper: Not determined

Vapour pressure: Not applicable

Density (20°C): Not determined

Bulk density at 20°C: Not determined

Solubility in / Miscibility with
(water, 25°C): 125g/L.

Partition coefficient (n-octanol/water): -1.29999

Viscosity:

Dynamic: Not applicable
Kinematic: Not applicable

Solvent content:

Organic solvents: 0.0%
VOC (EC): 0.00%

9.2 Other information

Appearance:

Form: Solid

Important information on protection of health and environment, and on safety.

Explosive properties: Product does not present an explosion hazard.

Change in condition

Evaporation rate: Not applicable.

Information with regard to physical hazard classes

Explosives: Void
Flammable gases: Void
Aerosols: Void
Oxidising gases: Void
Gases under pressure: Void
Flammable liquids: Void
Flammable solids: Void
Self-reactive substances and mixtures: Void
Pyrophoric liquids: Void
Pyrophoric solids: Void
Self-heating substances and mixtures: Void
Substances and mixtures, which emit
flammable gases in contact with water: Void
Oxidising liquids: Void
Oxidising solids: Void
Organic peroxides: Void
Corrosive to metals: Void
Desensitised explosives: Void

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10. Stability and Reactivity

10.1. Reactivity: No dangerous reactions known.

10.2. Chemical stability:

Thermal decomposition / conditions to be avoided:

Heating.

10.3. Possibility of hazardous reactions:

Reacts with strong oxidizing agents.

10.4. Conditions to avoid:

No further relevant information available.

10.5. Incompatible materials:

Strong oxidants.

10.6. Hazardous decomposition products:

In the event of fire: See chapter 5 of this data sheet.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity:

LD50/LC50 values relevant for classification

Components	Type	Value	Species
Oral	LD50	>5,000 mg/kg	rat

Primary irritant effect:

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Causes serious eye irritation.

After inhalation: Irritant to skin and mucous membranes.

Respiratory or skin sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: Based on available date, the classification criteria are not met.

STOT-single exposure: May cause respiratory irritation.

STOT-repeated exposure: Based on available date, the classification criteria are not met.

Aspiration hazard: Based on available date, the classification criteria are not met.

11.2. Information on other hazards:

Endocrine disrupting properties: Substance is not listed.

When used and handled according to specifications the product does not have any harmful effects to our experience and the information provided to us.

12. Ecological Information

12.1. Toxicity

Aquatic toxicity: Generally not hazardous for water.

12.2. Persistence and degradability: No further relevant information available.

12.3. Bioaccumulative potential: -1.3 log Pow.

12.4. Mobility in soil: No further relevant information available.

12.5. Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

12.7. Other adverse effects: No further relevant information available.

Additional ecological information:

General notes: Do not allow product to reach ground water, water course or sewage system. Water hazard class 1 (German Regulation)

(Assessment by list): slightly hazardous for water.

13. Disposal considerations

13.1. Waste treatment methods

Recommendation:

Chemicals must be disposed of in compliance with the respective national regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system. Contact a licensed professional waste disposal service to dispose of this material. Observe all federal, state, and local environmental regulations.

Uncleaned/contaminated packaging:

Recommendation:

Disposal must be made according to official regulations.

Packaging that may not be cleansed are to be disposed off in the same manner as the product.

14. Transport information

14.1. UN-Number

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ADR/RID, ADN, IMDG, IATA:

Void

14.2. UN proper shipping name

ADR/RID, ADN, IMDG, IATA:

Void

14.3. Transport hazard class(es)

ADR/RID, ADN, IMDG, IATA:

Class

Void

14.4. Packaging group

ADR/RID, IMDG, IATA:

Void

14.5. Environmental hazards:

Not applicable

14.6. Special precautions for user:

Not applicable

14.7. Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code

Not applicable

Transport/Additional information:

Not dangerous according to the above specifications.

UN "Model Regulation":

Void

15. Regulatory information

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I: Substance is not listed.

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II:
Substance is not listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)):

Substance is not listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS: Substance is not listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Genaxxon bioscience GmbH, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Disclaimer

This product is for R&D use only. Not for drug, household or other uses.

Abbreviations and Acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ACAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and labeling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

VOC: Volatile Organic Compounds (USA, EU)

CAS: Chemical Abstracts Service (division of the American Chemical Society).

EINECS: European Inventory of Existing Commercial Chemical Substances.