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

Product identifier

Product Name: 0.25% Trypsin in PBS

Catalogue-No.: C4259
CAS Number: -
EC Number: -
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.

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
reagent for cell culture applications

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

2. Hazardous identification

Classification of the substance/preparation/mixture
Classification according to Regulation (EC) No 1272/2008
The product is not classified according to the CLP regulations.

Classification according to European Directive 67/548/EEC or Directive 1999/45/EC. Not applicable.
Information concerning particular hazards for human and environment:
The product does not have to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Label elements
Labelling according to Regulation (EC) No 1272/2008: Void
Hazard pictograms: Void
Signal word: Void
Hazard-determining components of labelling: Void
Hazard statements: Void
Other hazards
Result of PBT and vPvB assessment
PBT: not applicable
vPvB: not applicable

3. Composition/information on ingredients

Chemical characterisation: Mixtures

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
CAS-No.: 9002-07-7 EC-No.: 232-650-8 Index-No.: 647-010-00-7	Trypsin	Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1; STOT SE 3; H315, H319, H334, H335	<=0.25%

Additional information: For the wording of the listed risk phrases refer to section 16**.**

4. First-aid measures

Description of first aid measures
General information:
After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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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.
If symptoms persist, consult a doctor.
After swallowing:
Rinse out mouth. Make victim drink water (maximum of 2 drinking glasses).
Seek medical treatment.
Information for doctor:
Most important symptoms and effects, both acute and delayed: No further relevant information available.
Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5. Fire-fighting Measures

Extinguishing media
Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
For safety reasons unsuitable extinguishing agents: Water with full jet.
Special hazards arising from the substance or mixture:
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 (NOx)
Sulfur oxides (SOx)
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

Personal precautions, protective equipment and emergency procedure:
Do not inhale steams/aerosols.
Environmental precautions: No special measures required.
Methods and materials for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust)..
Clean up affected area
Dispose off the material collected in accordance to regulations.
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

Handling:
Precautions for safe handling: No special precautions are necessary if used according to specifications.
Information about fire – and explosion protection: Normal measures for preventive fire protection.
Conditions for safe storage, including any incompatibilities

Storage:
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.
Storage class: 10-13
Specific end use(s): No further relevant information available.

8. Exposure controls/personal protection

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

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Control parameters
Ingredients with limit values that require monitoring at the workplace: Not required.
Additional information: The list valid during the making were used as basis.

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.
Store protective clothing separately.
Vacuum clean contaminated clothing. Do not blow or brush off contamination.
Immediately remove all soiled and 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 P1 (EN 143)..

Required when dusts are generated

Protection of hands:

Protective gloves

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.

9. Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance

Form:	Fluid
Colour:	Colourless
Odour:	Odourless
pH value at 20°C:	7.2 – 7.8

Change in conditions

Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	100°C
Flash point:	Not applicable

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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: 23 hPa

Density (20°C): 1.0g/cm3

Bulk density at 20°C: Not applicable

Solubility in / Miscibility with (water, 20°C): Fully miscible

Partition coefficient (n-octanol/water): Not determined

Viscosity:
Dynamic: Not applicable
Kinematic: Not applicable

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

Other information: No further relevant information available.

10. Stability and reactivity

Reactivity
Chemical stability
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
Possibility of hazardous reactions: No dangerous reactions known.
Conditions to avoid: No further relevant information available.
Incompatible materials: No further relevant information available.
Hazardous decomposition products: In the event of fire: See chapter 5 of this data sheet.

Additional information:

11. Toxicological information

Information on toxicological effects
Acute toxicity:

LD50/LC50 values relevant for classification			
Components	**Type**	**Value**	**Species**
9002-07-7 Trypsin			
Oral	**LD50**	>5000mg/kg (rat)	

Primary irritant effect
on the skin: No irritant effect.
on the eye: No irritant effect.
After inhalation: No irritant effect.
Sensitization: No sensitizing effect known.
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
The product should be treated with usual precautions while handling chemicals.
Chronic exposure
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.

12. Ecological Information

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Toxicity
Aquatic toxicity: No further relevant information available
Persistence and degradability: No further relevant information available
Behaviour in environmental systems
Bioaccumulative potential: No further relevant information available
Mobility in soil: No further relevant information available
Additional ecological information
General notes:
Results of PBT and vPvB assessment
PBT: Not applicable
vPvB: Not applicable
Other adverse effects: No further relevant information available.

13. Disposal considerations

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 packaging:
Recommendation: Disposal must be made according to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.
Recommended cleaning agents: Water, if necessary together with cleansing agents.

14. Transport information

UN-Number **ADR, ADN, IMDG, IATA**	Void
UN proper shipping name **ADR, ADN, IMDG, IATA**	Void
Transport hazard class(es) **ADR, ADN, IMDG, IATA** **Class**	Void
Packaging group **ADR, IMDG, IATA**	Void
Environmental hazards: **Marine pollutant**	No
Special precautions for user	Not applicable.
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

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).

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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.