

MATERIAL SAFETY DATA SHEET

Trypsin from Porcine Pancreas

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers :

Product name : Trypsin from Porcine Pancreas

Product number : 0009002077

Brand : Discovery

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 registration or the registration is envisaged for a later

Registration deadline.

Cas No. : 9002-07-7

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

Identified uses : laboratory chemicals, manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company: Discovery Fine Chemicals Ltd
Unit 4A, Old Forge Road, Ferndown Ind. Estate,
Wimborne, Dorset, BH21 7RR.
United Kingdom

Telephone: +44 (0)1202 874517

Fax: +44 (0)845 0944 385

E-mail: discovery@discofinechem.com

1.4 Emergency telephone : +44 (0)7912 646956

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Skin irritation (Category 2), H315

Eye irritation (Category 2A) H319

Respiratory sensitization (Category 1) H334

Stot SE (Category 3) H335

For the full text of the H-Statements mentioned in this section see section 16

Classification according to EU Directives 67/548/EEC or 1999/45/EC

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Pictogram



Signal word: Danger

Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation

H334 May cause allergy or asthma symptoms

H335 May cause respiratory irritation

Precautionary statement(s)

P261 Avoid breathing dust

P264 Wash skin thoroughly after handling

P271 use only outdoors or in a well-ventilated area

P280 Wear protective gloves/eye protection/face protection

P302+P352+ If on skin rinse cautiously with water.

P305+P351+P338 If in eyes rinse cautiously with water for several minutes. Remove contact lenses. Continue rinsing.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula: C35H47N7O10

Molecular Weight:

Cas No: 9002-07-7

Component

Trypsin from Porcine Pancreas

CAS-No. 9002-07-7

E.C No. 232-650-8

Classification

Skin irr.2

Skin sens 1.Eye irr.2

Resp sens1. STOT SE3

H319,H334,H335

Concentration

<=100%

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

If inhaled - If breathed in, move person into fresh air. Consult a doctor if feeling unwell.

In case of skin contact – Remove all contaminated clothing. Rinse skin with water. Consult a physician.

In case of eye contact – Flush eyes with water. Remove contact lenses. Call an ophthalmologist.

If swallowed – Make victim drink water (two glasses at most) and consult a doctor

4.2 Most important symptoms and effects, both acute and delayed – the most important known symptoms and effects are described in the labelling (see section 2.2 and/or in section 11).

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media – use water foam carbon dioxide (CO2)

Unsuitable extinguishing media – for this substance no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known. Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters – stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance.

5.4 Further information – suppress gases and vapours with a spray jet. Prevent extinguishing water from contaminating surface water

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area. For personal protection see section 8.

6.2 Environmental precautions - Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up – pick up and arrange disposal without creating dust. Sweep and shovel up. Keep in suitable closed containers for disposal.

6.4 Reference to other sections - For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing, apply preventative skin protection. Wash hands and face after working with substance.

For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

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

Recommended storage temperature: -20°C.

Storage class (TRGS 510): 11: combustible solids.

Product is sensitive to light and moisture.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Eye/face protection Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection Handle with gloves.

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the Full contact.

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril®

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril®

designated use.

Body Protection Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Respiratory protection Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance - Form: powder, beige

b) Odour - no data available

c) Odour Threshold - no data available

d) Melting point/range: no data available

e) Initial boiling point and boiling range - no data available

f) Flammability (solid, gas) - no data available

g) Upper/lower flammability or explosive limits - no data available

h) Flash point – not applicable

i) Autoignition temperature - no data available

j) Decomposition temperature - no data available

k) pH - no data available

l) Viscosity – viscosity,kinematic: no data available

- viscosity dynamic: no data available

m) Water solubility – no data available

n) Partition coefficient: no data available .

o) Vapour pressure - no data available

p) Density - no data available

- Relative density – no data available
q) Relative vapour density - no data available
r) Particle characteristics - no data available
s) Explosive properties – no data available
t) Oxidizing properties - no data available
9.2 Other safety information - no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under recommended storage conditions

10.3 Possibility of hazardous reactions

Violent reactions possible with strong oxidising agents.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat – 5,000 mg/kg

Remarks: (RTECS)

Inhalation – no data available

Dermal – no data available

Skin corrosion/irritation

Rabbit – skin irritation 24h.

Serious eye damage/eye irritation

Rabbit – causes serious eye irritation

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Lungs

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Endocrine disrupting properties

Product

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: YN5075000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1 Toxicity –

Toxicity to daphnia and other aquatic invertebrates - static test EC50 - Daphnia magna (Water flea) - > 24.7 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae - static test ErC50 - Pseudokirchneriella subcapitata - > 24.7 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria - EC50 - Bacteria - > 100 mg/l

12.2 Persistence and degradability - no data available

12.3 Bio-accumulative potential - no data available

12.4 Mobility in soil - no data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself according to notice directive on waste 2008/98/EC.

14. TRANSPORT INFORMATION

14.1 UN number NONE

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: - none

14.4 Packaging group

ADR/RID: - none

14.5 Environmental hazards

ADR/RID: no IMDG Marine Pollutant: no IATA: no

14.6 Special precautions for user

Further Information

Not classified as dangerous in the meaning of transport regulations

15. REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of DIR 94/33/EC on the protection of young people at work

15.2 Chemical Safety Assessment –

For this product a chemical safety assessment was not carried out.

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 2 and 3

Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation

H334 May cause allergy or asthma symptoms

H335 May cause respiratory irritation

Precautionary statement(s)

P261 Avoid breathing dust

P264 Wash skin thoroughly after handling

P271 use only outdoors or in a well-ventilated area

P280 Wear protective gloves/eye protection/face protection

P302+P352+ If on skin rinse cautiously with water.

P305+P351+P338 If in eyes rinse cautiously with water for several minutes. Remove contact lenses. Continue rinsing.

Further information

WARRANTY

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.

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APPENDIX

ABBREVIATIONS FULL TEXT

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ALARP As low as is reasonably practicable

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging Regulations

COSHH Control of Substances Hazardous to Health EC Number European Community Number

EC50 Effective Concentration 50%

ECHA European Chemicals Agency

ELINCS European List of Notified Chemical Substances

EINECS European Inventory of Existing Commercial Chemical Substances GHS Globally Harmonised System HSE

Health & Safety Executive UK

IATA International Air Transport Association

IM Intramuscular

IMDG The International Maritime Dangerous Goods Code

IP Intraperitoneal

IV Intravascular

LD50 Lethal Dose 50%

LOEC Lowest Observable Effective Concentration

LTEL Long Term Exposure Limit

NOEC No Observable Effective Concentration

OECD Organisation for Economic Cooperations and Development

OSHA European Agency for Safety and Health at work

PBT Persistent Bioaccumulative and Toxic substance

PPE Personal Protective Equipment

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Regulations Concerning the International Carriage of Dangerous Goods by Rail

SC Subcutaneous

SDS Safety Data Sheet

SIEF Substance Information Exchange Forum

STEL Short Term Exposure Limit

STOT (RE) Specific Target Organ Toxicity – repeated exposure

STOT (SE) Specific Target Organ Toxicity – single exposure
SVHC Substance of Very High Concern
VOC Volatile Organic Compounds
vPvB Very Persistent and Very Bioaccumulative
WEL Workplace Exposure Limits