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# TRYPSIN CAS NO 9002-07-7

# **MATERIAL SAFETY DATA SHEET** SDS/MSDS

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1	Product identifiers Product name	:	Trypsin
	CAS-No.	:	9002-07-7
1.2	Relevant identified uses of the substance or mixture and uses advised against		
	Identified uses	:	Laboratory chemicals, Industrial & for professional use only.
1.3	Details of the supplier of the safety data sheet		
	Company	:	Central Drug House (P) Ltd 7/28 Vardaan House New Delhi -110002 INDIA
	Telephone Email	:	+91 11 49404040 care@cdhfinechemical.com
1.4	Emergency telephone number		er
	Emergency Phone #	:	+91 11 49404040 (9:00am - 6:00 pm) [Office hours]

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 Respiratory sensitisation (Category 1), H334 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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

#### 2.2 Label elements

# Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word



5	5
Hazard statement(s)	
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(s)	
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear eye protection/ face protection.
P284	Wear respiratory protection.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
Supplemental Hazard Statements	none

# 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

Synonyms	: mass spec reagent ms reagent protein digest
CAS-No.	: 9002-07-7
EC-No.	: 232-650-8
Index-No.	: 647-010-00-7

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

Component		Classification	Concentration
Trypsin			
CAS-No. EC-No.	9002-07-7 232-650-8	Skin Irrit. 2; Eye Irrit. 2; Resp. Sens. 1; STOT SE 3; H315,	<= 100 %
Index-No.	647-010-00-7	H319, H334, H335	

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

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

#### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

# In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

# **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

# **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media

# Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2** Special hazards arising from the substance or mixture Nature of decomposition products not known.

# **5.3** Advice for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information No data available

# **SECTION 6: Accidental release measures**

- 6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. 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 up and shovel. Keep in suitable, closed containers for disposal.
- 6.4 Reference to other sections

For disposal see section 13.

# **SECTION 7: Handling and storage**

# 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. 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 2 - 8 °C

Product is sensitive to light and moisture. Storage class (TRGS 510): Non Combustible Solids

# 7.3 Specific end use(s)

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

# **SECTION 8: Exposure controls/personal protection**

# 8.1 Control parameters

8.2 Exposure controls

# Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

# Personal protective equipment

# **Eye/face protection**

Face shield and safety glasses 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.

# **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle r (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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.

# **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

		•	
a)	Appearance	Form: solid	
b)	Odour	No data available	
c)	Odour Threshold	No data available	
d)	рН	No data available	
e)	Melting point/freezing point	No data available	
f)	Initial boiling point and boiling range	No data available	
g)	Flash point	No data available	
h)	Evaporation rate	No data available	
i)	Flammability (solid, gas)	No data available	
j)	Upper/lower flammability or explosive limits	No data available	
k)	Vapour pressure	No data available	
I)	Vapour density	No data available	
m)	Relative density	No data available	
n)	Water solubility	No data available	
0)	Partition coefficient: n- octanol/water	No data available	
p)	Auto-ignition temperature	No data available	
q)	Decomposition temperature	No data available	
r)	Viscosity	No data available	
s)	Explosive properties	No data available	
t)	Oxidizing properties	No data available	
Other safety information No data available			

9.2

# **SECTION 10: Stability and reactivity**

- 10.1 Reactivity No data available
- **10.2 Chemical stability** Stable under recommended storage conditions.
- **10.3 Possibility of hazardous reactions** No data available
- **10.4 Conditions to avoid** No data available
- **10.5 Incompatible materials** Strong oxidizing agents
- 10.6 Hazardous decomposition products
   Other decomposition products No data available
   Hazardous decomposition products formed under fire conditions. Nature of decomposition products not known.
   In the event of fire: see section 5

# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - > 5,000 mg/kg(Trypsin)

**Skin corrosion/irritation** No data available(Trypsin)

**Serious eye damage/eye irritation** No data available(Trypsin)

**Respiratory or skin sensitisation** No data available(Trypsin)

**Germ cell mutagenicity** No data available(Trypsin)

# 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**

No data available(Trypsin)

**Specific target organ toxicity - single exposure** No data available(Trypsin)

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available(Trypsin)

Additional Information RTECS: YN5075000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Trypsin) Liver - Irregularities - Based on Human Evidence(Trypsin)

# **SECTION 12: Ecological information**

12.1 Toxicity

No data available

# 12.2 Persistence and degradability No data available

- **12.3 Bioaccumulative potential** No data available
- **12.4 Mobility in soil** No data available(Trypsin)

# 12.5 Results of PBT and vPvB assessment

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.

# 12.6 Other adverse effects

No data available

# **SECTION 13: Disposal considerations**

# 13.1 Waste treatment methods

# Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

# Contaminated packaging

Dispose of as unused product.

# **SECTION 14: Transport information**

UN number ADR/RID: -	IMDG: -	IATA: -
UN proper shipping nameADR/RID:Not dangerous goodsIMDG:Not dangerous goodsIATA:Not dangerous goods		
Transport hazard class(es) ADR/RID: -	IMDG: -	IATA: -
Packaging group ADR/RID: -	IMDG: -	IATA: -
Environmental hazards ADR/RID: no	IMDG Marine pollutant: no	IATA: no
Special precautions for user No data available		
	ADR/RID: - UN proper shipping name ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods Transport hazard class(es) ADR/RID: - Packaging group ADR/RID: - Environmental hazards ADR/RID: no Special precautions for user	ADR/RID:IMDG:UN proper shipping name ADR/RID:IMDG:ADR/RID:Not dangerous goodsIMDG:Not dangerous goodsIATA:Not dangerous goodsADR/RID:IMDG: -Packaging group ADR/RID:IMDG: -Environmental hazards ADR/RID: noIMDG Marine pollutant: noSpecial precautions for userIMDG Marine pollutant: no

# **SECTION 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.

# **15.2 Chemical safety assessment** For this product a chemical safety assessment was not carried out

# **SECTION 16: Other information**

# Full text of H-Statements referred to under sections 2 and 3.

- 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.

# **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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.