

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

<b>Catalogue Number</b>	CS-O-01089
<b>Product Name</b>	Chitosan
<b>CAS No.</b>	9012-76-4
<b>Category</b>	API
<b>Synonyms</b>	Deacetylated chitin; Poly(D-glucosamine); Poly-b-(1,4)-2-Amino-2-deoxy-D-glucose; 2-Amino-2-deoxy-(1,4)-b-D-glucopyranan; deacetylchitin; b-1,4-poly-D-glucosamine; poly-D-glucosamine; poly-(1,4-b-D-glucopyranosamine)
<b>Brand</b>	Clearsynth Labs Ltd.
<b>Identified uses</b>	Laboratory Chemicals
<b>Uses advised against</b>	Not available
<b>Company</b>	Clearsynth Labs Ltd. Mumbai, India
<b>Emergency Phone #</b>	+91-22-245045900
<b>REACH No.</b>	Not available

### SECTION 2: Hazards identification

**Disclaimer:** This is sample MSDS. Please email [sales@clearsynth.com](mailto:sales@clearsynth.com) for more details.

#### 2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Not available

#### 2.2 Label Elements

**Signal Word:** Not available

Not available

#### Hazard Statement(s)

Code	Statement
Not available	Not available

#### Precautionary Statement(s)

Code	Statement
Not available	Not available

### SECTION 3: Composition / information on ingredients

#### 3.1 Substance

Component : Chitosan

CAS Number : 9012-76-4

Molecular Formula : [C7H15NO4]<sub>n</sub>

Molecular Weight : -

Parent Chemical : Chitosan

Synonyms : Deacetylated chitin; Poly(D-glucosamine); Poly-b-(1,4)-2-Amino-2-deoxy-D-glucose;

2-Amino-2-deoxy-(1,4)-b-D-glucopyranan; deacetylchitin; b-1,4-poly-D-glucosamine; poly-D-glucosamine;

poly-(1,4-b-D-glucopyranosamine)

Concentration : Not available

### SECTION 4: First aid measures

#### SECTION 4: First-aid measures

##### 4.1 Description of first aid measures

- General advice: Remove contaminated clothing and shoes. Seek medical attention if symptoms persist.
- Inhalation: Move person to fresh air. If breathing is difficult, seek medical attention.
- Skin contact: Wash with soap and plenty of water. Get medical attention if irritation develops or persists.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.
- Ingestion: Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention if feeling unwell.

##### 4.2 Most important symptoms/effects, acute and delayed

- Not available.

##### 4.3 Indication of immediate medical attention and special treatment needed

- Treat symptomatically. No data available.

### SECTION 5: Firefighting measures

#### SECTION 5: Fire-fighting measures

##### 5.1 Suitable extinguishing media

- Use extinguishing measures appropriate to surrounding fire (e.g., water spray, dry chemical, foam, carbon dioxide).

##### 5.2 Special hazards arising from the substance or mixture

- Dust may form explosive mixture with air under certain conditions.
- Thermal decomposition may produce irritating and/or toxic fumes (e.g., carbon oxides, nitrogen oxides). No data available.

##### 5.3 Advice for firefighters

- Wear self-contained breathing apparatus and full protective gear.
- Avoid generating and dispersing dust. Cool containers with water spray if exposed to fire.

### SECTION 6: Accidental release measures

#### SECTION 6: Accidental release measures

##### 6.1 Personal precautions, protective equipment and emergency procedures

- Avoid breathing dust. Avoid contact with eyes and skin.
- Use appropriate personal protective equipment (see Section 8).
- Ensure adequate ventilation.

##### 6.2 Environmental precautions

- Prevent further leakage or spillage if safe to do so.
- Avoid release to the environment. No data available.

##### 6.3 Methods and materials for containment and cleaning up

- Avoid raising dust. Sweep up or vacuum using equipment fitted with HEPA filtration where possible.
- Place in a suitable, closed container for disposal.

##### 6.4 Reference to other sections

- See Section 8 for exposure controls/personal protection and Section 13 for disposal considerations.

### SECTION-7: Handling and storage

#### SECTION 7: Handling and storage

##### 7.1 Precautions for safe handling

- Handle in accordance with good industrial hygiene and safety practice.
- Avoid formation of dust and aerosols.
- Avoid contact with eyes, skin, and clothing. Avoid breathing dust.
- Provide adequate ventilation; use local exhaust where dust is generated.

##### 7.2 Conditions for safe storage, including any incompatibilities

- Store in a tightly closed container in a cool, dry, well-ventilated place.
- Protect from moisture.
- Incompatible materials: Not available.

##### 7.3 Specific end use(s)

- Not available.

### SECTION 8: Exposure controls / personal protection

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

##### 8.1 Control parameters

- Occupational exposure limits: No data available.

##### 8.2 Exposure controls

- Engineering controls: Use adequate general ventilation. Use local exhaust ventilation where dust is generated.
- Personal protective equipment (PPE):
  - Eye/face protection: Safety glasses with side shields or chemical safety goggles.
  - Skin protection: Protective gloves. Wear protective clothing as appropriate.
  - Respiratory protection: If dust is generated and ventilation is inadequate, use a suitable particulate respirator.

- Hygiene measures: Wash hands after handling. Do not eat, drink, or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Test	Result
Appearance	Light brown powder
IR spectrum	No data available
pH	No data available
Solubility	In water

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

### SECTION 10: Stability and reactivity

#### 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

- Excessive heat. Dust generation and accumulation.

##### 10.5 Incompatible materials

- Not available.

##### 10.6 Hazardous decomposition products

- Carbon oxides and nitrogen oxides. No data available.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

- Acute toxicity: No data available.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

#### Likely routes of exposure

- No data available.

#### Symptoms related to the physical, chemical and toxicological characteristics

- Not available.

### SECTION 12: Ecological information

#### 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.

#### 12.5 Results of PBT and vPvB assessment

- Not available.

#### 12.6 Endocrine disrupting properties

- No data available.

#### 12.7 Other adverse effects

- No data available.

### SECTION 13: Disposal considerations

#### SECTION 13: Disposal considerations

##### 13.1 Waste treatment methods

- Dispose of contents/container in accordance with local/regional/national/international regulations.
- Avoid generating dust during disposal.
- Do not discharge to drains or the environment.
- Waste code: Not available.

### SECTION 14: Transport information

#### SECTION 14: Transport information

- UN number: Not available.
- UN proper shipping name: Not available.
- Transport hazard class(es): Not available.
- Packing group: Not available.
- Environmental hazards: Not available.
- Special precautions for user: Not available.
- Transport in bulk according to IMO instruments: Not available.

Note: Transport classification may vary by mode of transport and jurisdiction. No data available.

### SECTION 15: Regulatory information

#### SECTION 15: Regulatory information

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

- Regulatory status/inventories: Not available.

##### 15.2 Chemical safety assessment

- No data available.

### SECTION 16: Other information

#### SECTION 16: Other information

- Product name: Chitosan
- CAS No.: 9012-76-4
- Synonyms: Deacetylated chitin; Poly(D-glucosamine); Poly-b-(1,4)-2-Amino-2-deoxy-D-glucose; 2-Amino-2-deoxy-(1,4)-b-D-glucopyranan; deacetylchitin; b-1,4-poly-D-glucosamine; poly-D-glucosamine; poly-(1,4-b-D-glucopyranosamine)
- Supplier: Clearsynth Labs Ltd., Mumbai, India
- Emergency phone: +91-22-245045900

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