

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

Catalogue Number	CS-E-01171
Product Name	alpha-Solanine
CAS No.	20562-02-1
Category	API
Synonyms	Not available
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email sales@clearsynth.com for more details.

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

Acute toxicity (Category 4)

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H302	Harmful if swallowed.

Precautionary Statement(s)

Code	Statement
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P264	Wash hands thoroughly after handling.
P270	Not available
P301+P317	Not available
P330	Not available
P501	Dispose of contents/container in accordance with local/regional/national/international regulation

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : alpha-Solanine

CAS Number : 20562-02-1

Molecular Formula : .

Molecular Weight : .

Parent Chemical : .

Synonyms : Not available

Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures

General advice: Seek medical attention if symptoms occur or persist. Show this Safety Data Sheet to the physician.

Inhalation: Move person to fresh air. If breathing is difficult, seek medical attention.

Skin contact: Wash with soap and water. Remove contaminated clothing and wash before reuse. Get medical attention if irritation develops.

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. Do NOT induce vomiting unless directed by medical personnel. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Not available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Not available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures appropriate to local circumstances and the surrounding environment (e.g., water spray, alcohol-resistant foam, dry chemical, carbon dioxide).

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

May form combustible dust concentrations in air if finely divided. Thermal decomposition may produce irritating and/or toxic fumes. Specific hazardous combustion products: Not available.

5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective gear. Use water spray to cool unopened containers. Prevent fire-fighting water from entering drains or waterways.

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 skin and eyes. Ensure adequate ventilation. Use appropriate personal protective equipment.

6.2 Environmental precautions

Avoid release to the environment. Prevent entry into drains, surface waters, or soil.

6.3 Methods and material for containment and cleaning up

Avoid dust formation. Collect spilled material using methods that minimize dust generation (e.g., damp wipe, HEPA-filtered vacuum). Place in a suitable, labeled container for disposal. Clean contaminated area.

6.4 Reference to other sections

See Section 8 for personal protective equipment 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 generating and breathing dust. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash hands thoroughly after handling.

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. Keep away from incompatible materials. Specific storage temperature: Not available.

7.3 Specific end use(s)

API / laboratory or research use. Not available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits: Not available.

Biological limit values: Not available.

8.2 Exposure controls

Engineering controls: Provide adequate ventilation. Use local exhaust ventilation where dust may be generated.

Personal protective equipment (PPE):

- Eye/face protection: Safety glasses with side shields or chemical splash goggles.

- Skin protection: Protective gloves. Protective clothing as appropriate.
- Respiratory protection: If ventilation is inadequate or dust is generated, use a suitable particulate respirator in accordance with applicable regulations.
- 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	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

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

Property	Value
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

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10.1 Reactivity

Not available.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Not available.

10.4 Conditions to avoid

Avoid dust formation. Avoid excessive heat. Avoid moisture. Other conditions: Not available.

10.5 Incompatible materials

Not available.

10.6 Hazardous decomposition products

Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: For more Non-Human Toxicity Excerpts (Complete) data for SOLANINE (6 total), please visit the HSDB record page.
- 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: Solanum glycoalkaloids can inhibit cholinesterase, disrupt cell membranes, and be teratogenic (cause birth defects). One study suggests that the toxic mechanism of solanine is caused by the chemical's interaction with mitochondrial membranes. Experiments show that solanine exposure opens the potassium channels of mitochondria, decreasing their membrane potential. This in turn leads to Ca²⁺ being transported from the mitochondria into the cytoplasm, and it is this increased concentration of Ca²⁺ in the cytoplasm that triggers cell damage and apoptosis. (Wikipedia) SOLANINE...HAS BEEN TESTED FOR TERATOGENICITY IN CHICK EMBRYOS... TEN TO 25 MG WAS ADMIN ON THE 4TH DAY OF INCUBATION TO THE CHICK AND NO INCR IN CONGENITAL MALFORMATIONS WAS FOUND. ...RATS /WERE FED/ A DIET CONTAINING 10 PERCENT POTATO SPROUTS FROM THE TIME PREGNANCY WAS INDICATED BY INCR WT GAIN. NO DEFECTS WERE DETECTED BUT THE PUPS DIED BEFORE WEANING. ...FOUND NO CONGENITAL DEFECTS IN RATS AFTER THEY ADMIN UP TO 25 MG PER KG ON DAYS 8 THROUGH 11 /OF PREGNANCY/.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure

- FATAL POISONING HAS BEEN DESCRIBED FROM THE INGESTION OF SPROUTING POTATOES, BUT THE USUAL CONCEN IN POTATOES (LESS THAN 0.01%) HAS NO TOXIC SIGNIFICANCE.

Symptoms related to the physical, chemical and toxicological characteristics

- ...TYPES OF POISONING FROM INGESTION OF POTATOES: 1) A NERVOUS FORM IN WHICH SIGNS OF STUPOR AND DEPRESSION PREDOMINATE; THIS IS USUALLY SEEN TOGETHER WITH 2) THE GASTRIC TYPE, CHARACTERIZED BY SALIVATION, VOMITING, DIARRHEA AND OTHER SIGNS OF GI IRRITATION; AND 3) AN EXANTHEMATOUS FORM, ASSOC WITH ULCERATIVE STOMATITIS, CONJUNCTIVITIS, DIARRHEA AND A VESICULAR AND SCURFY ECZEMA OF THE LEGS.

SECTION 12: Ecological information

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12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Not available.

12.5 Results of PBT and vPvB assessment

Not available.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

Not 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. Do not discharge to drains or the environment.

Product: Dispose of as hazardous waste if required by applicable regulations. Not available.

Contaminated packaging: Dispose of as unused product or according to local requirements.

SECTION 14: Transport information

SECTION 14: Transport information

14.1 UN number

Not available.

14.2 UN proper shipping name

Not available.

14.3 Transport hazard class(es)

Not available.

14.4 Packing group

Not available.

14.5 Environmental hazards

Not available.

14.6 Special precautions for user

Not available.

14.7 Maritime transport in bulk according to IMO instruments

Not available.

SECTION 15: Regulatory information

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

Not available.

15.2 Chemical safety assessment

Not available.

SECTION 16: Other information

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Catalog No.: CS-E-01171

CAS No.: 20562-02-1

Supplier: Clearsynth Labs Ltd., Mumbai, India

Emergency phone: +91-22-245045900

Revision date: Not available.

Disclaimer: The information provided in this Safety Data Sheet is based on data believed to be reliable; however, no warranty is expressed or implied regarding its accuracy or completeness. Users must determine suitability for their particular purpose and comply with all applicable laws and regulations.

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