

# SAFETY DATA SHEET

Creation Date 15-December-2011

Revision Date 21-December-2025

Revision Number 4

This safety data sheet was created pursuant to the requirements of: Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) - SOR 2022-272

## 1. Identification

**Product Name** (S)-(-)-3-Hydroxypyrrolidine

**Cat No. :** L19498

**CAS-No** 100243-39-8  
**Synonyms** (S)-3-Hydroxypyrrolidine

**Recommended Use** Laboratory chemicals.  
**Uses advised against** Food, drug, pesticide or biocidal product use.

### Details of the supplier of the safety data sheet

#### Company

##### **Importer/Distributor**

Fisher Scientific  
112 Colonnade Road,  
Ottawa, ON K2E 7L6,  
Canada  
Tel: 1-800-234-7437

##### **Emergency Telephone Number**

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
**Emergency Number US:**001-201-796-7100 / **Europe:** +32 14 57 52 99  
**CHEMTREC** Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

## 2. Hazard(s) identification

### Classification

#### **WHMIS 2015 Classification**

This product is hazardous in accordance with the Canada Hazardous Products Act (HPA) and Hazardous Products Regulation (HPR), as amended (SOR/2022-272)

|                                                         |            |
|---------------------------------------------------------|------------|
| <b>Skin Corrosion/Irritation</b>                        | Category 2 |
| <b>Serious Eye Damage/Eye Irritation</b>                | Category 2 |
| <b>Specific target organ toxicity (single exposure)</b> | Category 3 |
| Target Organs - Respiratory system.                     |            |

### Label Elements

#### **Signal Word**

Warning

#### **Hazard Statements**

Causes skin irritation

Causes serious eye irritation  
May cause respiratory irritation

**Precautionary Statements****Prevention**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Wash face, hands and any exposed skin thoroughly after handling  
Use only outdoors or in a well-ventilated area  
Wear protective gloves/protective clothing/eye protection/face protection

**Response**

IF ON SKIN: Wash with plenty of soap and water  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Call a POISON CENTER/ doctor if you feel unwell  
Take off contaminated clothing and wash it before reuse

**Storage**

Store in a well-ventilated place. Keep container tightly closed  
Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

### 3. Composition/Information on Ingredients

| Component             | CAS-No      | Weight % |
|-----------------------|-------------|----------|
| 3-Pyrrolidinol, (3S)- | 100243-39-8 | >95      |

### 4. First-aid measures

|                                        |                                                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye Contact</b>                     | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.              |
| <b>Skin Contact</b>                    | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention. |
| <b>Inhalation</b>                      | Remove from exposure, lie down. Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.   |
| <b>Ingestion</b>                       | Clean mouth with water. Get medical attention.                                                                               |
| <b>Most important symptoms/effects</b> | No information available.                                                                                                    |
| <b>Notes to Physician</b>              | Treat symptomatically                                                                                                        |

### 5. Fire-fighting measures

|                                       |                                                                              |
|---------------------------------------|------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b>   | Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Chemical foam. |
| <b>Unsuitable Extinguishing Media</b> | No information available                                                     |

|                                  |                          |
|----------------------------------|--------------------------|
| Flash Point                      | 110 °C / 230 °F          |
| Method -                         | No information available |
| Autoignition Temperature         | No information available |
| Explosion Limits                 |                          |
| Upper                            | No data available        |
| Lower                            | No data available        |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge  | No information available |

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

Health  
2

Flammability  
1

Instability  
0

Physical hazards  
N/A

## 6. Accidental release measures

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Personal Precautions      | Ensure adequate ventilation. Use personal protective equipment as required. |
| Environmental Precautions | See Section 12 for additional Ecological Information.                       |

**Methods for Containment and Clean Up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

## 7. Handling and storage

|          |                                                                                                                                                           |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handling | Avoid contact with skin and eyes. Do not breathe dust.                                                                                                    |
| Storage. | Keep in a dry place. Keep container tightly closed. Store in freezer. Store contents under argon. Incompatible Materials. Acids. Strong oxidizing agents. |

## 8. Exposure controls / personal protection

|                            |                                                                                                                                               |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Exposure Guidelines</u> | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.  
Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment**

|                |         |
|----------------|---------|
| Eye Protection | Goggles |
|----------------|---------|

**Hand Protection**

Protective gloves

| Glove material | Breakthrough time | Glove thickness | Glove comments         |
|----------------|-------------------|-----------------|------------------------|
| Nitrile rubber | See manufacturers | -               | Splash protection only |
| Neoprene       | recommendations   |                 |                        |
| Natural rubber |                   |                 |                        |
| PVC            |                   |                 |                        |

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection**

No protective equipment is needed under normal use conditions.

**Environmental exposure controls**

No information available.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

## 9. Physical and chemical properties

**Appearance****Physical State**

Solid

**Color**

Light yellow

**Odor**

No information available

**Odor Threshold**

No information available

**Property****Values****Remarks****• Method****Melting Point/Range**

No data available

**Softening Point**

No data available

**Boiling Point/Range**

108 - 110 °C / 226.4 - 230 °F

@ 8 mmHg

**Flash Point**

110 °C / 230 °F

**Method -** No information available**Flammability (liquid)**

Not applicable

Solid

**Flammability (solid,gas)**

No information available

**Explosion Limits**

No data available

**Autoignition Temperature**

No data available

**Decomposition Temperature**

No data available

**pH**

No information available

**Viscosity**

Not applicable

Solid

**Water Solubility**

No information available

**Solubility in other solvents**

No information available

**Partition Coefficient (n-octanol/water)****Vapor Pressure**

No data available

**Density / Specific Gravity**

1.048

**Bulk Density**

No data available

**Vapor Density**

Not applicable

Solid

**Particle characteristics**

No data available

**Other Information****Molecular Formula**

C4 H9 N O

**Molecular Weight**

87.12

**Evaporation Rate**

Not applicable - Solid

## 10. Stability and reactivity

|                                         |                                                                                |
|-----------------------------------------|--------------------------------------------------------------------------------|
| <b>Reactive Hazard</b>                  | None known, based on information available                                     |
| <b>Stability</b>                        | Unstable. heat sensitive. Air sensitive.                                       |
| <b>Conditions to Avoid</b>              | Exposure to air. Incompatible products.                                        |
| <b>Incompatible Materials</b>           | Acids, Strong oxidizing agents                                                 |
| <b>Hazardous Decomposition Products</b> | Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ) |
| <b>Hazardous Polymerization</b>         | Hazardous polymerization does not occur.                                       |
| <b>Hazardous Reactions</b>              | None under normal processing.                                                  |

## 11. Toxicological information

### Information on expected route of exposure

|                   |                                                |
|-------------------|------------------------------------------------|
| <b>Inhalation</b> | Not an expected route of exposure.             |
| <b>Ingestion</b>  | May be harmful if swallowed.                   |
| <b>Eyes</b>       | Avoid contact with eyes. Irritating to eyes.   |
| <b>Skin</b>       | Avoid contact with skin. May cause irritation. |

### Toxicology data for the components

|                                             |                          |
|---------------------------------------------|--------------------------|
| <b>Toxicologically Synergistic Products</b> | No information available |
|---------------------------------------------|--------------------------|

|                                       |            |
|---------------------------------------|------------|
| <b>(b) skin corrosion/irritation;</b> | Category 2 |
|---------------------------------------|------------|

|                                           |            |
|-------------------------------------------|------------|
| <b>(c) serious eye damage/irritation;</b> | Category 2 |
|-------------------------------------------|------------|

|                                               |                   |
|-----------------------------------------------|-------------------|
| <b>(d) respiratory or skin sensitization;</b> |                   |
| <b>Respiratory</b>                            | No data available |
| <b>Skin</b>                                   | No data available |

|                                    |                   |
|------------------------------------|-------------------|
| <b>(e) germ cell mutagenicity;</b> | No data available |
|------------------------------------|-------------------|

#### **(f) carcinogenicity;**

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component             | CAS-No      | IARC       | NTP        | ACGIH      | OSHA       | Mexico     |
|-----------------------|-------------|------------|------------|------------|------------|------------|
| 3-Pyrrolidinol, (3S)- | 100243-39-8 | Not listed | Not listed | Not listed | Not listed | Not listed |

|                                   |                   |
|-----------------------------------|-------------------|
| <b>(g) reproductive toxicity;</b> | No data available |
|-----------------------------------|-------------------|

|                                  |                     |
|----------------------------------|---------------------|
| <b>(h) STOT-single exposure;</b> | Category 3          |
| <b>Results / Target organs</b>   | Respiratory system. |

|                                            |                                                                            |
|--------------------------------------------|----------------------------------------------------------------------------|
| (i) STOT-repeated exposure;                | No data available                                                          |
| Target Organs                              | No information available.                                                  |
| (j) aspiration hazard;                     | Not applicable<br>Solid                                                    |
| Other Adverse Effects                      | The toxicological properties have not been fully investigated.             |
| Symptoms / effects, both acute and delayed | No information available.                                                  |
| Other Adverse Effects                      | The toxicological properties have not been fully investigated.             |
| Endocrine Disrupting Properties            | This product does not contain any known or suspected endocrine disruptors. |

## 12. Ecological information

### Ecotoxicity

Do not empty into drains.

|                               |                           |
|-------------------------------|---------------------------|
| Persistence and Degradability | No information available  |
| Bioaccumulation/ Accumulation | No information available. |
| Mobility                      | No information available. |

## 13. Disposal considerations

|                        |                                                                                                                                                                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste Disposal Methods | Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification. |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 14. Transport information

|          |               |
|----------|---------------|
| DOT      | Not regulated |
| TDG      | Not regulated |
| IATA     | Not regulated |
| IMDG/IMO | Not regulated |

## 15. Regulatory information

### International Inventories

| Component             | CAS-No      | DSL | NDSL | TSCA | TSCA Inventory notification - Active-Inactive | EINECS | ELINCS | NLP |
|-----------------------|-------------|-----|------|------|-----------------------------------------------|--------|--------|-----|
| 3-Pyrrolidinol, (3S)- | 100243-39-8 | -   | -    | -    | -                                             | -      | -      | -   |

| Component             | CAS-No      | IECSC | KECL | ENCS | ISHL | TCSI | AICS | NZIoC | PICCS |
|-----------------------|-------------|-------|------|------|------|------|------|-------|-------|
| 3-Pyrrolidinol, (3S)- | 100243-39-8 | -     | -    | -    | X    | X    | -    | -     | -     |

### Legend:

X - Listed '-' - Not listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japanese Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances  
PICCS - Philippines Inventory of Chemicals and Chemical Substances

**Canada**

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and its amendments and meets the requirements of the HPR (Paragraph 13(1)(a) of the revised Hazardous Products Act (HPA)).

**Other International Regulations**

**Authorisation/Restrictions according to EU REACH** Not applicable

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**

Not applicable

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

| Component             | CAS-No      | OECD HPV       | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|-----------------------|-------------|----------------|------------------------------|---------------------------|--------------------------------------------|
| 3-Pyrrolidinol, (3S)- | 100243-39-8 | Not applicable | Not applicable               | Not applicable            | Not applicable                             |

| Component             | CAS-No      | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|-----------------------|-------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------|------------------------------------|
| 3-Pyrrolidinol, (3S)- | 100243-39-8 | Not applicable                                                                            | Not applicable                                                                           | Not applicable             | Not applicable                     |

**16. Other information****Prepared By**

Product Safety Department  
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www.thermofisher.com

**Creation Date**

15-December-2011

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21-December-2025

**Revision Summary**

This document has been updated to comply with the requirements of WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) to align with the Globally Harmonised System (GHS) (V7/8) for the Classification and Labelling of Chemicals.

**Disclaimer**

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**End of SDS**