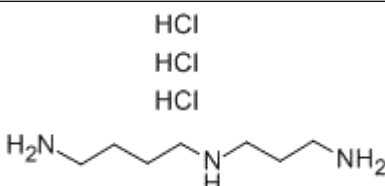


## Material Safety Data Sheet


### 1. Identification of the substance and company

<b>Product Name:</b>	<b>Spermidine hydrochloride</b>
<b>Synonyms:</b>	/
<b>Application:</b>	For health care products
<b>Supplier:</b>	Xi'an Natural Field Bio-Technique Co., Ltd. Add.: 5th Floor, Building B, No.57, Keji 3rd Road, High-Tech Zone, Xi'an, 710075, China Tel: 0086-29-87973630 Web: www.natural-field.com

### 2. Composition/information on ingredients.

<b>Appearance:</b>	White to off-white powder
<b>Ingredient name:</b>	Spermidine hydrochloride
<b>CAS number:</b>	334-50-9
<b>Molecular Formula:</b>	$C_7H_{22}Cl_3N_3$
<b>Molecular Weight:</b>	254.63
<b>Structure:</b>	

### 3. Hazards identification

3.1 Classification of the substance or mixture, Not a hazardous substance or mixture.	
3.2 GHS Label elements, including precautionary statements, Not a hazardous substance or mixture.	
3.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none.	

### 4. First aid measures

<b>Skin contact:</b>	Wash off with soap and plenty of water.
<b>Eye contact:</b>	Flush eyes with water as a precaution.
<b>Breathed in:</b>	Move person into fresh air. If not breathing, give artificial respiration.
<b>Swallowed:</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water.

### 5. Fire fighting 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,  
Carbon oxides.
- 5.3 Advice for firefighters,  
Wear self-contained breathing apparatus for firefighting if necessary.
- 5.4 Further information,  
No data available.

## 6. Accidental release measures

<b>General Information:</b>	Avoid dust formation. Avoid breathing vapours, mist or gas. Use proper personal protective equipment as indicated in Section 8.
<b>Environmental Precautions:</b>	Prevent substance entering drains, watercourses and sewers. If substance enters watercourse or sewers, inform Police, Fire Brigade, Local and Water Authorities immediately.
<b>Methods and materials for containment and cleaning up:</b>	Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

<b>Handling:</b>	Avoid breathing, vapor, mist, or gas. Avoid contact with skin and eyes. Use only in a chemical fume hood.
<b>Storage:</b>	Storage In cool and dry place, be far from strong sunlight.

## 8. Exposure Controls / PPE

<b>8.1 Control parameters</b> Components with workplace control parameters, Contains no substances with occupational exposure limit values.	
<b>8.2 Exposure controls</b> Appropriate engineering controls, General industrial hygiene practice.	
<b>Personal Protective Equipment</b>	
<b>Eyes:</b>	Wear chemical splash goggles.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. Physical and chemical properties

<b>Appearance:</b>	White to off-white powder
<b>Odor:</b>	Not available
<b>Solubility in Water:</b>	Not available
<b>Boiling point:</b>	Not available
<b>Melting Point:</b>	257-259°C
<b>Initial boiling point and boiling range:</b>	Not available
<b>Flash point:</b>	Not available
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid, gas):</b>	Not available
<b>Upper/lower flammability or explosive limits:</b>	Not available
<b>Vapour pressure:</b>	Not available
<b>Vapour density:</b>	Not available
<b>Relative density:</b>	Not available
<b>Partition coefficient: noctanol/water:</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition temperature:</b>	Not available
<b>Viscosity:</b>	Not available
<b>Explosive properties:</b>	Not available
<b>Oxidizing properties:</b>	Not available

#### 10. Stability and reactivity

<b>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to Avoid:</b>	No data available.
<b>Incompatibilities with Other Materials:</b>	Strong oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Other decomposition products - No data available.

#### 11. Toxicological information

<b>RTECS#:</b>	Not listed.
<b>LD50:</b>	Not listed.
<b>Carcinogenicity:</b>	Not listed.
<b>Other:</b>	The toxicological properties have not been fully investigated.

#### 12. Ecological information

<b>No data.</b>
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#### 13. Disposal consideration

Dispose of in a manner consistent with federal, state, and local regulations.

Waste treatment methods.

Product,

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging,

Dispose of as unused product.

#### 14. Transportation information

Non-hazardous for air ,ground and sea transportation.

#### 15. Regulatory information

<b>Indication of Danger:</b>	Not available.
<b>Risk Statement:</b>	Not available.
<b>Safety Statement:</b>	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

#### 16. Other information

This MSDS is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. It is the responsibility of the handlers of the product to pass on the information contained in this document to any subsequent persons who come into contact with, handle or use the product in any way. They should check the adequacy of the information contained in the safety data sheet received before passing in onto their customers. The information given in the Data Sheets is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.