

地址:苏州工业园区致和医药大厦 电话: 86 512 66706057 info@mylandpharm.com Add: ZhiHe Pharmaceutical Tower, SIP, Suzhou, CN. www.mylandpharm.com

MATERIAL SAFETY DATA SHEET (MSDS)

1. Identification

1.1. GHS Product identifier			
Product name	Spermidine Trihydrochloride		
1.2. Other means of identification			
Product number	-		
Other names	Spermidine 3HCL; N-(3-aminopropyl)-1,4-Butanediamine Trihydrochloride		
1.3. Recommended use of the chemical and restrictions on use			
Identified uses	Scientific research uses.		
Uses advised against	no data available		
1.4. Supplier's details			
Company	SUZHOU MYLAND PHARM & NUTRITION INC.		
Address	No.208 Chaoqing Office Tower, 262 Dongping Road,		
	Suzhou Industry Park, Suzhou, Jiangsu, China. 215123		
Telephone	86-512-66706057		
Fax	86-512-66703687-8009		

2. Hazard identification

2.1. Classification of the substance or mixture Not classified.

2.2. GHS label elements, including precautionary statements

Pictogram(s)		no data available
Signal word		no data available
Hazard statement(s)		no data available
Precautionary statement(s)		
Prevention		no data available
Response		no data available
Storage		no data available
Disposal		no data available
Other hazards which do not	resu	It in classification

2.3. Other hazards which do not result in classification no data available

3. Composition/information on ingredients

3.1. Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Spermidine Trihydrochloride	Spermidine 3HCL; N-(3-aminopropyl)-1,4- Butanediamine Trihydrochloride	334-50-9	206-379-0	100%

4. First-aid measures

4.1. Description of necessary first-aid measures

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor. Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2. Most important symptoms/effects, acute and delayed

no data available

4.3. Indication of immediate medical attention and special treatment needed, if necessary no data available

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

- 5.2. Specific hazards arising from the chemical
 - no data available

5.3. Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2. Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3. Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. Handling and storage

7.1. Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2. Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

no data available **Biological limit values**

no data available

8.2. Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US). Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator. **Thermal hazards**

no data available

9. Physical and chemical properties

Physical state	White to off-white powder
Odour	no data available
Melting point	257°C-259°C
Boiling point or initial boiling	no data available
point and boiling range	
Flammability	no data available
Lower and upper explosion limit	: no data available
/ flammability limit	
Flash point	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
рН	no data available
Kinematic viscosity	no data available
Solubility	no data available
Partition coefficient n-	no data available
octanol/water	
Vapour pressure	no data available
Density and/or relative density	no data available
Relative vapour density	no data available
Particle characteristics	no data available

10. Stability and reactivity

- 10.1. Reactivity no data available
- **10.2.** Chemical stability no data available
- **10.3.** Possibility of hazardous reactions

no data available

- **10.4.** Conditions to avoid no data available
- **10.5. Incompatible materials** no data available
- **10.6. Hazardous decomposition products** no data available

11. Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available Skin corrosion/irritation no data available Serious eye damage/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

12. Ecological information

- 12.1. Toxicity
 - Toxicity to fish: no data available
 - Toxicity to daphnia and other aquatic invertebrates: no data available
 - Toxicity to algae: no data available
 - Toxicity to microorganisms: 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.** Other adverse effects no data available

13. Disposal considerations

13.1. Disposal methods Product The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

14.1.	UN Number		
	ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
	(For reference only, please	(For reference only, please	(For reference only, please
	check.)	check.)	check.)
14.2.	UN Proper Shipping Name		
	ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
	(For reference only, please	(For reference only, please	(For reference only, please
	check.)	check.)	check.)
14.3.	Transport hazard class(es)		
	ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
	(For reference only, please	(For reference only, please	(For reference only, please
	check.)	check.)	check.)
14.4.	Packing group, if applicable		
	ADR/RID: Not dangerous goods.	IMDG: Not dangerous goods.	IATA: Not dangerous goods.
	(For reference only, please	(For reference only, please	(For reference only, please
	check.)	check.)	check.)
14.5.	Environmental hazards		
	ADR/RID: No	IMDG: No	IATA: No
14.6.	Special precautions for user		
	no data available		
14.7.	Transport in bulk according t	o Annex II of MARPOL 73/7	78 and the IBC Code
	no data available		

15. Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
Spermidine Trihydrochloride	Spermidine 3HCL; N-(3-aminopropyl)-1,4-Butanediamine Trihydrochloride	334-50-9	206-379-0
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Not Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.

Philippines Inventory of Chemicals and Chemical Substances (PICCS)	
Vietnam National Chemical Inventory	Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	
Korea Existing Chemicals List (KECL)	Not Listed.

16. Other information

Further information

Copyright: Suzhou MyLand Pharm & Nutrition Inc. License granted to make unlimited paper copies for internal use only. 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. Suzhou MyLand Pharm & Nutrition Inc. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.mylandpharm.com for additional terms and conditions of sale.