

SAFETY DATA SHEET

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

1.1 Product identifiers

Product Name: Spermidine CAS Number: 124-20-9 Catalog number: A890571

1.2 Relevant identified uses of the substance or mixture and uses advised against.

Identified uses: For R&D use only

1.3 Details of the supplier of the safety data sheet

Amadis Chemical Company Limited No.99 Housheng Street, Gongshu District, 310015, Hangzhou, Zhejiang, P.R. China

Tel:0086-571-89925085 / Fax:0086-571-89925065

1.4 Emergency telephone number

Emergency Phone: 0086-571-89925085

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin corrosion/irritation (Category 1A, B, C) H314

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage

Precautionary statement(s)

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms: N-(3-Aminopropyl)-1,4-butanediamine; Spermidine N-(3-Aminopropyl)-1,4-butanediamine; 4-azaoctamethylenediamine; N-(3-Aminopropyl)-1,4-diaminobutane~1,8-Diamino-4-azaoctane; N-(3-Aminopropyl)-1,4-butandiamine

Formula : C7H19N3 Molecular weight : 145.25 CAS-No. : 124-20-9

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting 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, Nitrogen oxides (NOx), silicon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Moisture sensitive. Store under nitrogen.

Storage class (TRGS 510): Combustible liquids not in Storage Class 3

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with

applicable laws and good laboratory practices. 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.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance Colorless to light yellow solid b) Odour No data available

c) Odour Threshold No data available d) pH No data available

e) Melting point/freezing point

f) Initial boiling point and boiling range 246.6°C at 760 mmHg

g) Flash point

h) Evaporation rate
i) Flammability (solid, gas)
j) Upper/lower flammability or explosive limits
j) Upper/lower flammability or explosive limits
No data available
j) Upper/lower flammability or explosive limits
No data available
k) Vapour pressure
No data available
l) Vapour density
No data available

m) Relative density

n) Water solubility
No data available
o) Partition coefficient: noctanol/water
p) Auto-ignition temperature
No data available
q) Decomposition temperature
No data available
r) Viscosity
No data available
s) Explosive properties
No data available
t) Oxidizing properties
No data available

9.2 Other safety information

No data available

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

No data available

10.5 Incompatible materials

Acids, Bases, Alcohols, Strong oxidizing agents, Material generates methanol on contact with water or moisture

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), silicon oxides Other decomposition products - No data available In the event of fire: see section 5

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 sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Material may form a siloxane polymer on the skin, eyes, or in the lungs. I tissues, seek medical attention.

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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product

SECTION 14: Transport information

14.1 UN number

ADR/RID: 2735 IMDG: 2735 IATA:2735

14.2 UN proper shipping name

ADR/RID: Spermidine IMDG: Spermidine IATA: Spermidine

14.3 Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA:8

14.4 Packaging group

ADR/RID: III IMDG: III IATA:III

14.5 Environmental hazards

ADR/RID: IMDG Marine pollutant:

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

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

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H314 Causes severe skin burns and eye damage

Further information

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