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5-Azacytidine (5-Aza, Azacitidine) SDS | MSDS

1.PRODUCT AND COMPANY IDENTIFICATION

Product identifier

• **Product Name:** 5-Azacytidine (5-Aza, Azacitidine)

• **Catalog Number:** S1782

• **CAS Number:** 320-67-2

• **IUPAC Name:** 4-amino-1-β-D-ribofuranosyl-1,3,5-triazin-2(1H)-one

Relevant identified uses and uses advised against

• **Identified uses:** For research and development use only; laboratory chemicals; manufacture of substances.

• **Uses advised against:** Not for pharmaceutical, household, or other unapproved uses.

Details of the supplier

• **Company :** Selleck Chemicals

• **TollFree :** +1 877 796-6397

• **Tel :** +1 832 582-8158

• **Fax :** +1 832 582-8590

Emergency telephone number

• **Emergency phone #:** +1 832 582-8158

2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

• Acute toxicity (Oral): Category 4

• Germ cell mutagenicity: Category 2

• Carcinogenicity: Category 1A

• Reproductive toxicity: Category 1B

• Specific target organ toxicity - repeated exposure: Category 1

• Long-term (chronic) aquatic hazard: Category 1

Pictogram:

Signal word: Danger

Hazard statements:

• H302 Harmful if swallowed.

• H341 Suspected of causing genetic defects.

• H350 May cause cancer.

• H360 May damage fertility or the unborn child.

• H372 Causes damage to organs through prolonged or repeated exposure.

• H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

• **Prevention:**

  • P201 Obtain special instructions before use.

  • P202 Do not handle until all safety precautions have been read and understood.

  • P260 Do not breathe powder.

  • P264 Wash skin thoroughly after handling.

  • P270 Do not eat, drink or smoke when using this product.

  • P273 Avoid release to the environment.

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

• **Response:**

  • P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

  • P308 + P313 IF exposed or concerned: Get medical advice/ attention.

  • P391 Collect spillage.

• **Storage:**

  • P405 Store locked up.

• **Disposal:**

  • P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Substance

CAS-No.: 320-67-2

Components:

• **Chemical name:** 4-amino-1-β-D-ribofuranosyl-1,3,5-triazin-2(1H)-one

• **CAS No.:** 320-67-2

• **Concentration (% w/w):** >= 90 - <= 100

• **Trade secret:** Actual concentration is withheld as a trade secret.

4. FIRST AID MEASURES

General advice: Show this safety data sheet to the doctor in attendance.

If inhaled: After inhalation: fresh air. Call in physician.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact: After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed: After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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.

Protection of first-aiders: For personal protection see section 8.

Notes to physician: N/A.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water, Foam, Carbon dioxide (CO2), Dry powder.

Unsuitable extinguishing media: For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards during fire fighting: Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.

Hazardous combustion products: Carbon oxides, Nitrogen oxides (NOx).

Specific extinguishing methods: N/A.

Further information: Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire-fighters: Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

• **Advice for non-emergency personnel:** Avoid generation and inhalation of powder in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

• **Advice for emergency responders:** For personal protection see section 8.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of powder.

7. HANDLING AND STORAGE

Advice on safe handling: Work under hood. Do not inhale substance/mixture. For precautions see section 2.2.

Further information on storage conditions: Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

Storage class: 6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects.

Recommended storage temperature: -4 °F / -20 °C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters: Contains no substances with occupational exposure limit values.

Engineering measures: N/A.

Personal protective equipment:

• **Respiratory protection:** Required when powder is generated. Recommended Filter type: Filter type P3. Maintenance, cleaning, and testing must be carried out according to producer instructions and properly documented.

• **Hand protection:** Handle with impervious gloves. Material: Nitrile rubber. Break through time: 480 min. Glove thickness: 0.11 mm. Protective index: Full and splash contact. Manufacturer: KCL 741 Dermatril® L.

• **Eye protection:** Use safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

• **Skin and body protection:** Protective clothing.

• **Hygiene measures:** Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: powder

Color: white

Odor: N/A

Odor Threshold: N/A

pH: N/A

Melting point/ range: 439 - 450 °F / 226 - 232 °C (Method: dec.)

Boiling point/boiling range: N/A

Flash point: N/A

Evaporation rate: N/A

Flammability (solid, gas): N/A

Flammability (liquids): N/A

Burning rate: N/A

Upper explosion limit / Upper flammability limit: N/A

Lower explosion limit / Lower flammability limit: N/A

Vapor pressure: N/A

Relative vapour density: N/A

Relative density: N/A

Density: N/A

Water solubility: N/A

Partition coefficient: n-octanol/water: N/A

Autoignition temperature: N/A

Decomposition temperature: N/A

Viscosity, dynamic: N/A

Viscosity, kinematic: N/A

Flow time: N/A

Explosive properties: N/A

Oxidizing properties: none

Molecular weight: 244.20 g/mol

Particle size: N/A

10. STABILITY AND REACTIVITY

Reactivity: The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a powder explosion potential may generally be assumed.

Chemical stability: The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions: N/A.

Conditions to avoid: No information available.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: In the event of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

• **Acute toxicity:** LD50 Oral - Mouse - 572 mg/kg. Remarks: (RTECS). Inhalation: N/A. Dermal: N/A.

• **Skin corrosion/irritation:** N/A.

• **Serious eye damage/eye irritation:** N/A.

• **Respiratory or skin sensitization:** N/A.

• **Germ cell mutagenicity:** Suspected of causing genetic defects.

• **Carcinogenicity:** May cause cancer. Positive evidence from human epidemiological studies. IARC: 2A - Group 2A: Probably carcinogenic to humans (2-(-D-Ribofuranosyl)-4-amino-1,3,5-triazin-2-one). NTP: RAHC - Reasonably anticipated to be a human carcinogen (2-(-D-Ribofuranosyl)-4-amino-1,3,5-triazin-2-one). OSHA: No component present at levels >= 0.1% is on OSHA's list of regulated carcinogens.

• **Reproductive toxicity:** May damage the unborn child. May damage fertility.

• **Specific target organ toxicity - single exposure:** N/A.

• **Specific target organ toxicity - repeated exposure:** Causes damage to organs through prolonged or repeated exposure.

• **Aspiration hazard:** N/A.

11.2 Additional Information

RTECS: XZ3017500. Nausea, Headache, Vomiting, Liver injury may occur. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - Irregularities - Based on Human Evidence.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

• **Components (2-(-D-Ribofuranosyl)-4-amino-1,3,5-triazin-2-one):**

• Toxicity to algae/aquatic plants: NOEC (Lemna minor (duckweed)): 0.068 mg/l; Exposure time: 7 d.

• Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC (Daphnia magna (Water flea)): 0.73 mg/l; Exposure time: 21 d.

• M-Factor (Chronic aquatic toxicity): 1.

• Sediment toxicity: N/A.

Persistence and degradability: N/A.

Bioaccumulative potential: N/A.

Mobility in soil: N/A.

Other adverse effects: N/A.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. TRANSPORT INFORMATION

International Regulations

• **IATA-DGR:**

• UN/ID No.: UN 3077

• Proper shipping name: Environmentally hazardous substance, powder, n.o.s. (2-(-D-Ribofuranosyl)-4-amino-1,3,5-triazin-2-one

16. OTHER INFORMATION

Revision Date: 2026/07/13

Further Information: The information provided is believed to be correct but is not exhaustive and should be used only as a guideline based on current knowledge. It does not represent a guarantee of the properties of the product. Selleck Chemicals Corporation and its Affiliates shall not be held liable for any damage resulting from handling or contact with the product.