

Decitabine SDS | MSDS

1.PRODUCT AND COMPANY IDENTIFICATION

Product identifier

- **Product Name:** Decitabine
- **Catalog Number:** S1200
- **CAS Number:** 2353-33-5
- **IUPAC Name:**
4-amino-1-((2R,4S,5R)-4-hydroxy-5-(hydroxymethyl)-tetrahydrofuran-2-yl)-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:

- Acute toxicity (Oral): Category 4
- Skin irritation: Category 2
- Eye irritation: Category 2A
- Germ cell mutagenicity: Category 2
- Reproductive toxicity: Category 1B
- Specific target organ toxicity - single exposure: Category 3 (Respiratory system)

Pictogram:



Signal Word: Danger

Hazard Statements:

- H302: Harmful if swallowed.
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.
- H341: Suspected of causing genetic defects.
- H360: May damage fertility or the unborn child.

Precautionary Statements:

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P261: Avoid breathing powder.
- P264: Wash skin thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or in a well-ventilated area.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P312 + P330: IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313: IF exposed or concerned: Get medical advice/ attention.
- P332 + P313: If skin irritation occurs: Get medical advice/ attention.
- P337 + P313: If eye irritation persists: Get medical advice/ attention.
- P362: Take off contaminated clothing and wash before reuse.
- P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
- P405: Store locked up.
- P501: Dispose of contents/ container to an approved waste disposal plant.

Other Hazards: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Substance

Chemical Name:

4-amino-1-((2R,4S,5R)-4-hydroxy-5-(hydroxymethyl)-tetrahydrofuran-2-yl)-1,3,5-triazin-2(1H)-one

CAS-No.: 2353-33-5

Concentration: >= 90 - <= 100%

4. FIRST AID MEASURES

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

- **If inhaled:** After inhalation, move to fresh air. Call a 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. Remove contact lenses. Call an ophthalmologist.
- **If swallowed:** Immediately make victim drink water (two glasses at most). Consult a physician.
- **Most important symptoms and effects:** The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
- **Protection of first-aiders:** Refer to section 8 for personal protection.
- **Notes to physician:** N/A.

5. FIREFIGHTING MEASURES

- **Suitable extinguishing media:** Water, Foam, Carbon dioxide (CO₂), Dry powder.
- **Unsuitable extinguishing media:** No limitations of extinguishing agents are given for this substance.
- **Specific hazards during firefighting:** Combustible. Development of hazardous combustion gases or vapors (Carbon oxides, Nitrogen oxides) is possible in the event of fire.
- **Specific extinguishing methods:** N/A.
- **Further information:** Suppress gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
- **Special protective equipment for firefighters:** 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:** For non-emergency personnel: Avoid inhalation of powder. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area and consult an expert. For emergency responders: 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. Take up carefully and dispose of properly. Clean up affected area. Avoid generation of powder.

7. HANDLING AND STORAGE

- **Advice on safe handling:** Work under a hood. Do not inhale substance/mixture. For precautions see section 2.
- **Conditions for safe storage:** Keep container tightly closed in a dry and well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.
- **Storage class:** 6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which cause chronic effects.
- **Recommended storage temperature:** See product label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- **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 P3 (based on DIN EN 143, DIN 14387).
 - **Hand protection:** Nitrile rubber gloves (Full and splash contact: 0.11 mm thickness, 480 min breakthrough time). Handle with gloves and use proper removal techniques.
 - **Eye protection:** Safety glasses tested and approved under 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:** 392 °F / 200 °C (Decomposition: yes)
- **Boiling point/boiling range:** N/A
- **Flash point:** N/A
- **Evaporation rate:** N/A
- **Flammability (solid, gas):** N/A
- **Upper/Lower flammability or explosive limits:** N/A
- **Vapor pressure:** N/A
- **Relative vapor density:** N/A
- **Relative density:** N/A
- **Density:** ca. 1.90 g/cm³ (at 68 °F / 20 °C, calculated)
- **Water solubility:** N/A
- **Partition coefficient: n-octanol/water:** log Pow: -2.27
- **Autoignition temperature:** N/A
- **Decomposition temperature:** N/A
- **Viscosity:** N/A
- **Explosive properties:** N/A
- **Oxidizing properties:** none
- **Molecular weight:** 228.21 g/mol
- **Particle size:** N/A

10. STABILITY AND REACTIVITY

- **Reactivity:** Flammable organic substances in fine distribution may have powder explosion potential when whirled up.
- **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:** Oxidizing agents.
- **Hazardous decomposition products:** In the event of fire, see section 5.

11. TOXICOLOGICAL INFORMATION

- **Acute toxicity:**
 - Oral: N/A.
 - Inhalation: N/A.
 - Dermal: N/A.
 - LD50 Intraperitoneal - Mouse - 190 mg/kg.
 - LD50 Intravenous - Mouse - 22 mg/kg (Remarks: Leukopenia, Thrombocytopenia, weight loss).
- **Skin corrosion/irritation:** N/A.
- **Serious eye damage/eye irritation:** N/A.
- **Respiratory or skin sensitization:** N/A.
- **Germ cell mutagenicity:** In vitro tests showed mutagenic effects (Hamster ovary: DNA inhibition; Human leukocyte: DNA damage; Rat intraperitoneal: DNA inhibition).
- **Carcinogenicity:** No component of this product present at levels $\geq 0.1\%$ is identified as a probable, possible, or confirmed human carcinogen by IARC, NTP, or OSHA.
- **Reproductive toxicity:** Presumed human reproductive toxicant.
- **STOT - single exposure:** N/A.
- **STOT - repeated exposure:** N/A.
- **Aspiration hazard:** N/A.
- **Additional Information:** RTECS: XZ3012000. Toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

- **Ecotoxicity:** N/A for 4-amino-1-((2R,4S,5R)-4-hydroxy-5-(hydroxymethyl)-tetrahydrofuran-2-yl)-1,3,5-triazin-2(1H)-one.
- **Persistence and degradability:** N/A.
- **Bioaccumulative potential:** N/A. Partition coefficient: log Pow: -2.27.
- **Mobility in soil:** N/A.
- **Other adverse effects:** N/A.

13. DISPOSAL CONSIDERATIONS

- **Waste treatment methods:** Waste material must be disposed of in accordance with national and local regulations. Leave chemicals in original containers. Do not mix with other waste. Handle uncleaned containers like the product itself.

14. TRANSPORT INFORMATION

- **DOT (49 CFR):** Not regulated as a dangerous good.
- **IMDG:** Not regulated as a dangerous good.
- **IATA:** Not regulated as a dangerous good.
- **Transport in bulk:** Not applicable for product as supplied.
- **Poison Inhalation Hazard:** No.
- **Special precautions:** Not classified as dangerous in the meaning of transport regulations.

15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards

Acute Health Hazard

Chronic Health Hazard

SARA 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

The components of this product are reported in the following inventories:

TSCA : Product contains substance(s) not listed on TSCA inventory.

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

16. OTHER INFORMATION

Revision Date: 2026/07/08

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.