

Gemcitabine Hydrochloride SDS | MSDS

1.PRODUCT AND COMPANY IDENTIFICATION

Product identifier

- **Product Name:** Gemcitabine Hydrochloride
- **Catalog Number:** S1149
- **CAS Number:** 122111-03-9
- **IUPAC Name:**
4-amino-1-((2R,4R,5R)-3,3-difluoro-4-hydroxy-5-(hydroxymethyl)-tetrahydrofuran-2-yl)pyrimidin-2(1H)-one hydrochloride

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)

Reproductive toxicity: Category 1B

GHS label elements

Pictogram:



Signal word: Danger

Hazard statements:

H360 May damage fertility or the unborn child.

Precautionary statements:

Prevention:

P201 Obtain special instructions before use.

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

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

Response:

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

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.: 122111-03-9

Components

- **Chemical name:** Gemcitabine hydrochloride
- **CAS-No.:** 122111-03-9
- **Concentration (% w/w):** ≥ 90 - $\leq 100\%$
- **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.

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) 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 (NO_x), Hydrogen chloride gas, Hydrogen fluoride.

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 inhalation of powder. 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.

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: See product label.

Further information on storage stability: Light sensitive. Store with desiccant.

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. The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.
- **Hand protection:** Nitrile rubber gloves. Full contact: 0.11 mm thickness, 480 min breakthrough time (KCL 741 Dermatril-L). Splash contact: 0.11 mm thickness, 480 min breakthrough time (KCL 741 Dermatril-L).
- **Eye protection:** 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:** Change contaminated clothing. Wash hands after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: powder

Color: N/A

Odor: N/A

Odor Threshold: N/A

pH: N/A

Melting point: N/A

Boiling point/boiling range: N/A

Flash point: N/A

Evaporation rate: N/A

Flammability (powder, gas): N/A

Flammability (liquids): N/A

Burning rate: N/A

Upper explosion limit: N/A

Lower explosion limit: N/A

Vapor pressure: N/A

Relative vapour density: 10.35 (Air = 1.0)

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: 299.66 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:**

- Oral/Inhalation/Dermal: N/A.
- TDLo Parenteral (Human, female): 300 mg/kg (Remarks: Dyspnea, focal fibrosis/pneumoconiosis).
- LD50 Intravenous (Rat): 236 mg/kg.
- LD50 Intravenous (Mouse): 500 mg/kg.

• **Skin corrosion/irritation:** N/A.

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

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

• **Germ cell mutagenicity:** N/A.

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

• **Reproductive toxicity:** Presumed human reproductive toxicant.

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

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

• **Aspiration hazard:** N/A.

11.2 Additional Information

• **Repeated dose toxicity:** Mammal/Mouse (Remarks: Blood: Thrombocytopenia).

• **Other symptoms:** Fever, Nausea, Vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity: N/A.

Persistence and degradability: N/A.

Bioaccumulative potential: N/A.

Mobility in soil: N/A.

Other adverse effects: N/A.

13. DISPOSAL CONSIDERATIONS

Waste from residues: 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:** Not regulated as a dangerous good.
- **IMDG-Code:** Not regulated as a dangerous good.
- **Transport in bulk according to IMO instruments:** Not applicable for product as supplied.

National Regulations

- **49 CFR Road:** Not regulated as a dangerous good.
- **Poison Inhalation Hazard:** No.

Special precautions for user

- **Remarks:** 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 : Chronic Health Hazard

Hazards

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: 2026/07/02

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.