

# Ganciclovir (BW 759) SDS/MSDS (Safety Data Sheet)

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

\* Product Name: Ganciclovir (BW 759)

\* Catalog Number: S1878

\* CAS Number: 82410-32-0

\* IUPAC Name: 2-amino-1,9-dihydro-9-[[2-hydroxy-1-(hydroxymethyl)ethoxy]methyl]-6H-purin-6-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

### 2.1 GHS classification in accordance with 29 CFR 1910 (OSHA HCS):

Reproductive toxicity: Category 1. H360

### 2.2 GHS Label elements, including precautionary statements

Hazard Pictogram(s)



Signal Word

Danger

Hazard statement(s)

H360: May damage fertility or the unborn child

Precautionary statement(s)

None.

Prevention

P203: Obtain, read and follow all safety instructions before use.

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

Response

P318: if exposed or concerned, get medical advice.

Storage

P405: Store locked up.

Disposal

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

### 2.3 Other hazards

None.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Product name: Ganciclovir (BW 759)

CAS Number: 82410-32-0

PubChem CID: 135398740

Molecular formula: C<sub>9</sub>H<sub>13</sub>N<sub>5</sub>O<sub>4</sub>

Molecular weight: 255.23 g/mol

IUPAC name: 2-amino-9-(1,3-dihydroxypropan-2-yloxymethyl)-1H-purin-6-one

#### 3.2 Mixtures

Not applicable (pure substance).

### 4. FIRST-AID MEASURES

#### 4.1 Description of first aid measures

Inhalation: Move to fresh air. Keep at rest in a position comfortable for breathing. Seek medical attention if symptoms persist.

Skin contact: Wash with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation develops.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Seek medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

See Section 11 (Toxicological Information).

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact a poison control center or physician for severe exposure.

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable: Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam.

Unsuitable: None known.

#### 5.2 Specific hazards arising from the substance or mixture

Combustible. Heating may produce toxic fumes.

#### 5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

Fight fire from upwind. Cool containers with water spray until fire is extinguished.

### 6. ACCIDENTAL RELEASE MEASURES

### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear appropriate personal protective equipment (see Section 8).

Avoid breathing dust/vapor. Ensure adequate ventilation.

Evacuate personnel to safe areas. Keep people away from and upwind of spill.

### **6.2 Environmental precautions**

Prevent product from entering drains, waterways, or soil.

Contain spill with inert absorbent material.

### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## **7. HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C. Keep in a dry place.

Ganciclovir capsules should be stored at 5-25 °C and ganciclovir sodium sterile powder should be stored at room temperature; exposure to temperatures exceeding 40 °C should be avoided.

### **7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C. Keep in a dry place.

Ganciclovir capsules should be stored at 5-25 °C and ganciclovir sodium sterile powder should be stored at room temperature; exposure to temperatures exceeding 40 °C should be avoided.

Store away from incompatible materials (see Section 10).

[Note: Specific storage temperature not available in public databases. Refer to supplier Certificate of Analysis (COA) for exact storage conditions.]

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Exposure controls**

#### **8.1.1 Occupational exposure limits (OEL)**

OSHA PEL: Not established.

ACGIH TLV: Not established.

NIOSH REL: Not established.

No occupational exposure limit values are established for this substance.

Use the lowest feasible exposure level (ALARA principle).

#### **8.1.2 Appropriate engineering controls**

Use in a well-ventilated area. Chemical fume hood recommended for powder handling.

### **8.2 Individual protection measures**

#### **8.2.1 Eye/face protection**

Wear safety glasses with side shields.

#### **8.2.2 Skin protection**

Wear protective gloves. Recommended material: Nitrile rubber.

Wear suitable protective clothing (lab coat).

#### 8.2.3 Respiratory protection

Respiratory protection usually not required under normal use with adequate ventilation.

Use N95 respirator for large-scale powder handling.

#### 8.2.4 Thermal hazards

Not applicable.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

- a) Appearance: Solid
- b) Odor: No data available
- c) Odor threshold: No data available
- d) pH: No data available
- e) Melting point/freezing point: 250 °C (decomposes)
- f) Initial boiling point and boiling range: No data available
- g) Flash point: No data available
- h) Evaporation rate: No data available
- i) Flammability (solid, gas): No data available
- j) Upper/lower flammability or explosive limits: No data available
- k) Vapor pressure: No data available
- l) Vapor density: No data available
- m) Relative density: No data available
- n) Water solubility: Ganciclovir sodium sterile powder occurs as a white to off-white, crystalline, lyophilized powder. Ganciclovir sodium has a solubility of 3 mg/mL in water at 25 °C and neutral pH. Both ganciclovir base and ganciclovir sodium are freely soluble in water at high pH (around 11). At more neutral pH, solubility is reduced, and crystallization may occur in concentrated solutions of the drug (exceeding 10 mg/ml). Ganciclovir sodium contains approximately 4 mEq of sodium per gram of ganciclovir. Following reconstitution with sterile water for injection, ganciclovir sodium solutions containing 50 mg of ganciclovir per mL have a pH of approximately 11 and are colorless. Following further dilution in 0.9% sodium chloride injection or 5% dextrose injection, solutions containing approximately 2.5 mg of ganciclovir per mL have a pH of approximately 10 and an osmolality of 310 mOsm/kg. /Ganciclovir sodium/
- o) Partition coefficient: n-octanol/water: Log P (n-octanol/water): -2.5
- 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 information

Topological Polar Surface Area (TPSA): 135 Å²

Complexity: 346

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity**

No specific reactivity hazards identified under normal handling conditions.

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No hazardous reactions under normal conditions.

**10.4 Conditions to avoid**

Avoid heat, sparks, open flames, direct sunlight, and moisture.

Avoid strong oxidizing agents, strong acids, and strong bases.

**10.5 Incompatible materials**

Strong oxidizing agents, strong acids, strong bases.

**10.6 Hazardous decomposition products**

Thermal decomposition may produce: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>).

See also Section 5 (Fire-fighting measures) for combustion products.

**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute toxicity:**

No acute toxicity data available.

**Skin corrosion/irritation:**

No data available.

**Serious eye damage/eye irritation:**

No data available.

**Respiratory or skin sensitization:**

No data available.

**Germ cell mutagenicity:**

No data available.

**Carcinogenicity:**

No data available.

**Reproductive toxicity:**

May damage fertility or the unborn child (H360).

**Specific target organ toxicity (single exposure):**

No data available.

**Specific target organ toxicity (repeated exposure):**

No data available.

**Aspiration hazard:**

No data available.

**11.2 Additional information**

No additional toxicological information available.

## **12. ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

Ganciclovir's production and administration as an antiviral may result in its release to the environment through various waste streams. If released to air, an estimated vapor pressure of  $4.5 \times 10^{-17}$  mm Hg at 25 °C indicates ganciclovir will exist solely in the particulate phase in the atmosphere. Particulate-phase ganciclovir will be removed from the atmosphere by wet or dry deposition. Ganciclovir contains chromophores that absorb at wavelengths >290 nm and, therefore, may be susceptible to direct photolysis by sunlight. If released to soil, ganciclovir is expected to have very high mobility based upon an estimated Koc of 10. Volatilization from moist soil surfaces is not expected to be an important fate process based upon an estimated Henry's Law constant of  $1.5 \times 10^{-23}$  atm-cu m/mole. Ganciclovir is not expected to volatilize from dry soil surfaces based upon its vapor pressure. If released into water, ganciclovir is not expected to adsorb to suspended solids and sediment based upon the estimated Koc. Volatilization from water surfaces is not expected to be an important fate process based upon this compound's estimated Henry's Law constant. An estimated BCF of 3 suggests the potential for bioconcentration in aquatic organisms is low. Hydrolysis is not expected to be an important environmental fate process since this compound lacks functional groups that hydrolyze under environmental conditions. Occupational exposure to ganciclovir may occur through inhalation and dermal contact

### **12.2 Persistence and degradability**

No data available.

### **12.3 Bioaccumulative potential**

Log P (n-octanol/water): -2.5

Low potential for bioaccumulation (Log P < 3).

### **12.4 Mobility in soil**

No data available.

### **12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available.

### **12.6 Other adverse effects**

No other adverse ecological effects identified.

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

Waste Treatment Methods: Waste material must be disposed of in accordance with national and local regulations. Leave chemicals in original containers and do not mix with other waste. Handle uncleaned containers in the same manner as the product itself.

## **14. TRANSPORT INFORMATION**

### **14.1 UN number**

Not regulated as dangerous goods (research quantities typically exempt).

### **14.2 UN proper shipping name**

Not subject to transport regulations (small quantities for research use).

#### **14.3 Transport hazard class(es)**

Not classified as dangerous goods for transport (research quantities).

#### **14.4 Packing group**

Not applicable (not regulated as dangerous goods in typical research quantities).

#### **14.5 Environmental hazards**

Marine pollutant: No (not classified as environmentally hazardous per GHS).

#### **14.6 Special precautions for user**

Transport in original packaging. Ensure containers are tightly sealed.

For bulk or commercial quantities, consult applicable transport regulations (DOT, IATA, IMDG).

#### **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable.

### **15. REGULATORY INFORMATION**

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

US EPA / TSCA: Not available in public databases.

EU ECHA / REACH: REACH Status: Cease

##### **SARA 302 Components:**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

##### **SARA 313 Components:**

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.

##### **SARA 311/312 Hazards:**

Chronic (long-term) health hazard

##### **Massachusetts Right To Know Components:**

This material contains components subject to the Massachusetts Right to Know Act. See Section 2 for hazard classification.

##### **Pennsylvania Right To Know Components:**

This material contains components subject to the Pennsylvania Right to Know Act. See Section 2 for hazard classification.

##### **New Jersey Right To Know Components:**

This material contains components subject to the New Jersey Right to Know Act. See Section 2 for hazard classification.

##### **California Prop. 65 Components:**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

##### **Other regulatory listings:**

- California Safe Cosmetics Program (CSCP) Reportable Ingredient: Hazard Traits - Carcinogenicity; Developmental Toxicity; Reproductive Toxicity Authoritative List - Prop 65 Report - regardless of intended function of ingredient in the product

- FDA Requirements: The Approved Drug Products with Therapeutic Equivalence Evaluations identifies currently marketed prescription drug products, including ganciclovir, approved on the basis of safety and effectiveness by FDA under sections 505 of the Federal Food, Drug, and Cosmetic Act.

The Approved Drug Products wit

### **15.2 Chemical safety assessment**

A chemical safety assessment has not been carried out for this substance.

For research-use-only compounds, no CSA is required under REACH Annex I.

## **16. OTHER INFORMATION**

Revision Date: 2026/09/08

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.