

Safety Data Sheet


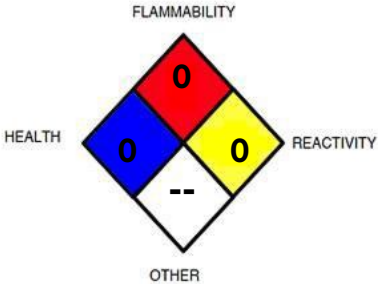
Section 1: Product & Company Identification

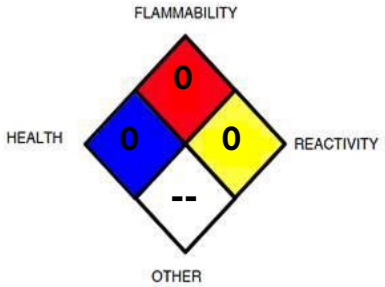
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| Product Name: | Gemcitabine Hydrochloride |
| Product #: | G-2336 |
| Synonyms: | Gamcitabine; Gemcitera |
| Supplier: | AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego CA 92131 Tele# + 858-452-9925 |
| Emergency Tele#: | ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585 |

Section 2: Composition / Information on Ingredients

| Component | CAS# | EC # | % Composition |
|---------------------------|-------------|------|---------------|
| Gemcitabine Hydrochloride | 122111-03-9 | - | ≥98 |

Section 3: Hazards Identification

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| Symbols |  |
| HMIS Classification | <p>FLAMMABILITY</p> <p>HEALTH</p> <p>REACTIVITY</p> <p>OTHER</p>  |

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| NFPA Classification |  <p>The diagram is a diamond-shaped hazard diamond. The top triangle is red and labeled 'FLAMMABILITY' with a '0'. The left triangle is blue and labeled 'HEALTH' with a '0'. The right triangle is yellow and labeled 'REACTIVITY' with a '0'. The bottom triangle is white and labeled 'OTHER' with '--'.</p> |
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Section 4: First Aid Measures

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| General Overview: | Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. |
| Inhalation: | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| Skin: | Wash off with soap and plenty of water. Consult a physician. |
| Eyes: | Flush eyes with water as a precaution. |
| Ingestion: | Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |
| | See section 11 for more detailed information on health effects & symptoms. |

SECTION 5: Fire Fighting Measures

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| Flammability of the product: | Not flammable or combustible |
| Extinguishing Media: | Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. |
| Hazardous thermal (de)composition products: | Hazardous decomposition products formed under fire conditions— carbon oxides, nitrogen oxides, hydrogen chloride gas, hydrogen fluoride. |
| Special Fire Fighting Procedures: | Wear self-contained breathing apparatus for firefighting if necessary. |
| Flash Point: | No data available |




Section 6: Accidental Release Measures

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| Personal Precautions: | Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, gas, or dust. Ensure adequate ventilation. Evacuate personnel to safe areas. |
| Environmental Precautions: | Prevent further leakage or spillage if safe to do so. Do not let product enter drains. |
| Methods for Clean-up: | Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. |

SECTION 7: Handling & Storage

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| Storage: | Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20°C |
| Handling: | Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. |

SECTION 8: Exposure controls / Personal Protection

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| Respiratory Protection: |  <p>Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of 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).</p> |
| Skin and Body: |   <p>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.</p> <p>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.</p> |
| Eyes: | |

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| |  <p>Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p> |
| Ventilation/Engineering Measures: | N/A |
| Hygiene: | Handle in accordance with good industrial hygiene and safety practice. |
| Other: | Contains no substances with occupational exposure limit values. |

SECTION 9: Physical and Chemical Properties

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| Appearance & Odor: | White solid |
| Formula | $C_9H_{11}F_2N_3O_4 \cdot HCl$ |
| Molecular Wt. | 299.66 |
| Melting Pt. | No data available |
| Boiling Pt. | No data available |
| Density: | No data available |
| Vapor Pressure: | No data available |
| Evaporation Rate: | No data available |
| Vapor Density: | No data available |
| Solubility: | DMSO, Water |
| Flash Point: | No data available |
| Autoignition Temp: | No data available |

SECTION 10: Stability and Reactivity

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| Stability: | Stable under recommended storage conditions. |
| Hazardous decomposition products: | Carbon oxides, nitrogen oxides, hydrogen chloride gas, hydrogen fluoride |
| Materials to Avoid: | Strong oxidizing agents |
| Conditions to avoid: | No data available |

SECTION 11: Toxicological Information

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| RTECS#: | N/A |
| ACUTE Toxicity: | TDLo Parenteral - human - female - 300 mg/kg: Remarks∠ Lungs, thorax, or respiration: fibrosis, focal (pneumoconiosis), and other changes. LD50 Intravenous - rat - 236 mg/kg LD50 Intravenous - mouse - 500 mg/kg |
| CHRONIC Toxicity: | N/A |
| Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive: | 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. AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated human carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as known or potential human carcinogen by OSHA. EPA: No classification on carcinogenic data is available from EPA |

SECTION 12: Ecological Information

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| Ecotoxicity: | No data available |
| Mobility: | No data available |
| Persistence and degradability: | No data available |
| Bioaccumulative potential: | No data available |
| Other adverse effects: | No data available |
| Corrosivity Characteristic: | No data available |
| General Notes: | To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. |

SECTION 13: Disposal Considerations

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| Residue Waste or Unused product: | Offer surplus and non-recyclable solutions to a licensed disposal company. Contact licensed professional waste disposal service to dispose of this material. |
| Contaminated Packaging: | Dispose of as unused product. |

SECTION 14: Transportation Information

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| UN ID#: | N/A |
| ADR / RID (LAND): | Not regulated |
| DOT regulations: | Not regulated |
| IMDG/IMO (SEA): | Not regulated |
| IATA/DGR (AIR): | Not regulated |
| Special Provisions: | N/A |

SECTION 15: Regulatory Information

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| Health Phrases: | H360 May damage fertility or the unborn child. |
| Risk Phrases: | P201 Obtain special instructions before use. P261 Avoid breathing dust/fumes/gas/mist/vapors/spray. P308+P313 IF exposed or concerned: Get medical advice/attention. |
| Safety Phrases: | N/A |
| EU Regulations: | R46, S36/37, S45, S53 |
| US Regulations: | TSCA: Not listed California Proposition 65: Not listed New Jersey State Right to Know: Listed Pennsylvania State Right to Know: Listed |
| U.S. Federal Regulations: | SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: Chronic Health Hazard SARA 313 toxic chemicals notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean Air Act (CAA) 112 accidental release prevention: No products were found. Clean Air Act (CAA) 112 regulated flammable substances: No products were found. Clean Air Act (CAA) 112 regulated toxic substances: No products were found. OSHA: Reproductive toxicity (Cat. 1B) |
| WHMIS (Canada): | N/A |

SECTION 16: Other Information

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