

Safety Data Sheet

Section 1: Product & Company Identification

Product Name:	Flumazenil
Product #:	F-2413
Synonyms:	Ro 1722; Ro 15-1788; Ro 41-8157
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
Flumazenil	78755-81-4	616-650-9	≥98

Section 3: Hazards Identification

Symbols	
----------------	---

HMIS Rating

Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard
2	0	0	0

NFPA Rating

Health Hazard	Fire Hazard	Reactivity Hazard
3	0	0

Section 4: First Aid Measures

General Overview:	Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Inhalation:	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

Skin:	Generally, the product does not irritate the skin.
Eyes:	Rinse opened eyes for several minutes under running water.
Ingestion:	Immediately call a doctor.
	See section 11 for more detailed information on health effects & symptoms.

SECTION 5: Fire Fighting Measures

Flammability of the product:	Product is not flammable.
Extinguishing Media:	Use firefighting measures that suit the environment. A solid water stream may be inefficient.
Hazardous thermal (de)composition products:	No data available
Special Fire Fighting Procedures:	Mouth respiratory protective device.
Flash Point:	No data available

Section 6: Accidental Release Measures




Personal Precautions:	Not required.
Environmental Precautions:	Do not allow to enter sewers/surface or ground water.
Methods for Clean-up:	Ensure adequate ventilation.

SECTION 7: Handling & Storage

Storage:	Recommended storage temperature: -20°C
Handling:	Thorough dedusting. Ensure good ventilation/exhaustion at the workplace.

SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:	
--------------------------------	---

	In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Skin and Body:	  <p>Protective gloves.</p>
Eyes:	 <p>Not required.</p>
Ventilation/Engineering Measures:	Ensure adequate ventilation.
Hygiene:	Follow standard good industrial hygiene.
Other:	Contains no substances with occupational exposure limit values.

SECTION 9: Physical and Chemical Properties

Appearance & Odor:	Solid. Characteristic odor.
Formula	$C_{15}H_{14}FN_3O_3$
Molecular Wt.	303.3
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:	DMF (11 mg/mL); DMSO (16 mg/mL); DMSO:PBS (pH 7.2) (1:1) (0.5 mg/mL); Ethanol (1 mg/mL)
Flash Point:	No data available
Autoignition Temp:	No data available

SECTION 10: Stability and Reactivity

Stability:	Stable under recommended storage conditions.
Hazardous decomposition products:	No data available
Materials to Avoid:	No data available
Conditions to avoid:	No data available

SECTION 11: Toxicological Information

RTECS#:	N/A
ACUTE Toxicity:	Oral TDLO = 2 mL/kg/2D intermittent (woman) LD50 = 4,200 mg/kg (rat) Intraperitoneal LD50 = 1,360 mg/kg (rat) Intraperitoneal LD50 = 4 g/kg (mouse)
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

Ecotoxicity:	Water hazard class 1 (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
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:	No data available
-----------------------	-------------------

SECTION 13: Disposal Considerations

Residue Waste or Unused product:	Must not be disposed of together with household garbage. Do not allow product to reach sewage system
Contaminated Packaging:	Disposal must be made according to official regulations.

SECTION 14: Transportation Information

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

Health Phrases:	Warning! H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
Risk Phrases:	P261 Avoid breathing dust/fume/gas/mist/vapors/spray P264 Wash 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.
Safety Phrases:	P301+P312 If swallowed: Call a poison center/doctor if you feel unwell. P302+P352 If on skin: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P321 Specific treatment (see on this label). P330 Rinse mouth. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container in accordance with local/regional /national/international regulations.
EU Regulations:	N/A
US Regulations:	TSCA: Not listed California Proposition 65: No products were found
U.S. Federal Regulations:	SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: No products were found. SARA 313 toxic chemicals notification and release reporting: No products were found. Clean Water Act (CWA) 307: No products were found.

	<p>Clean Water Act (CWA) 311: No products were found.</p> <p>Clean Air Act (CAA) 112 accidental release prevention: No products were found.</p> <p>Clean Air Act (CAA) 112 regulated flammable substances: No products were found.</p> <p>Clean Air Act (CAA) 112 regulated toxic substances: No products were found.</p> <p>OSHA: Acute toxicity – oral (Cat 4); Acute toxicity – dermal (Cat. 4); Acute toxicity – inhalation (Cat. 4)</p>
WHMIS (Canada):	N/A

SECTION 16: Other Information

LIABILITY STATEMENT: *The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. AG Scientific shall not be held liable for any damages resulting from handling or from contact with the above product. AG Scientific products are for research purposes only. Not for human use or consumption.*