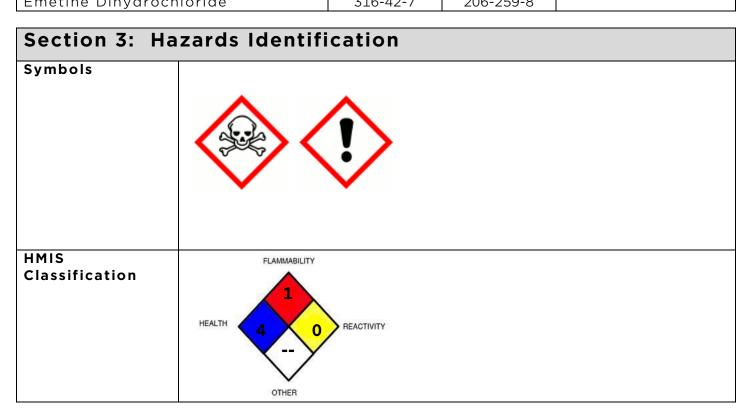


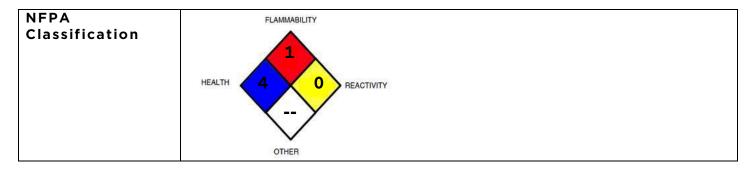
## Safety Data Sheet

Section 1: Product & Company Identification		
Product Name:	Emetine Dihydrochloride	
Product #:	E-2304	
Synonyms:	6',7',10,11-Tetramethoxyemetan 2HCI	
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
Empting Dibydrochloridg	316-42-7	206-259-8	







Section 4: First Aid Measures		
General	Show this material safety data sheet to the doctor in attendance.	
Overview:		
Inhalation:	After inhalation: fresh air.	
Skin:	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.	
Eyes:	After eye contact: rinse out with plenty of water. Call an ophthalmologist. Remove contact lenses.	
Ingestion:	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.	
	See section 11 for more detailed information on health effects & symptoms.	

# **SECTION 5: Fire Fighting Measures**

Flammability of	Combustible
the product:	
Extinguishing	Water, Foam, Carbon dioxide, Dry powder
Media:	
Hazardous	Carbon oxides, Nitrogen oxides, Hydrogen chloride gas
thermal	
(de)composition	
products:	
Special Fire	Stay in danger area only with self-contained breathing apparatus. Prevent skin
Fighting	contact by keeping a safe distance or by wearing suitable protective clothing.
Procedures:	
	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent
	fire extinguishing water from contaminating surface water or the ground
	water system.
Flash Point:	N/A

## Section 6: Accidental Release Measures



Personal Precautions:	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see Section 8.
Environmental Precautions:	Do not let product enter drains.
Methods for Clean-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 dusts.

# SECTION 7: Handling & Storage

Storage:	Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Recommended storage temperature: 2 - 8°C
Handling:	For precautions see Section 2

## **SECTION 8:** Exposure controls / Personal Protection

### **Respiratory Protection:**



Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Skin and Body:

|--|

Protective gloves and lab coat.

Eyes:



	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.
Ventilation/Engineering Measures:	Do not let product enter drains.
Hygiene:	Handle in accordance with good industrial hygiene and safety practice. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
Other:	Contains no substances with occupational exposure limit values.

SECTION 9: Physical and Chemical Properties		
Appearance &	Solid	
Odor:		
Formula	$C_{29}H_{40}N_2O_4 \bullet 2HCI$	
Molecular Wt.	553.6	
Melting Pt.	235 - 255°C (455 - 491°F)	
Boiling Pt.	No data available	
Density:	No data available	
Vapor Pressure:	No data available	
<b>Evaporation Rate:</b>	No data available	
Vapor Density:	No data available	
Solubility:	Water, Ethanol	
Flash Point:	No data available	
Autoignition	No data available	
Temp:		

SECTION 10: Stability and Reactivity		
Stability:	Stable under recommended storage conditions.	
Hazardous	No data available	
decomposition		
products:		
Materials to Avoid:	No data available	
Conditions to avoid:	No data available	



## **SECTION 11:** Toxicological Information

RTECS#:	N/A
ACUTE Toxicity:	LD50 Oral = 0.012 mg/kg (Rat)
CHRONIC Toxicity:	N/A
Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive:	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>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 NTP.</li> <li>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.</li> <li>EPA: No classification on carcinogenic data is available from EPA</li> </ul>

SECTION 12: Eco	ological Information
Ecotoxicity:	No data available
Mobility:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available
Other adverse effects:	<ul> <li>Emetine accumulates mainly in the liver but appreciable levels are also found in the kidney, spleen, and lungs persisting for several months in these tissues.</li> <li>Nausea, Vomiting, Pain, muscle tension, Necrosis, abscess formation, Diarrhea, Dizziness, Headache, urticaria, purpuric skin rash, Severe degenerative myocarditis may occur giving rise to sudden cardiac failure and death.</li> <li>Other serious cardiovascular effects include: precordial pain, tachycardia, hypotension, ECG changes include t-wave inversion, prolongation of the q-t interval and st elevation.</li> <li>Lesions of the: Kidney, Liver, Gastrointestinal tract, skeletal muscle</li> </ul>
Corrosivity Characteristic:	No data available
	To the best of our knowledge, the chemical physical and toxical asian
General Notes:	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.



SECTION 13: Disposal Considerations		
Residue Waste or Unused product:	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste.	
Contaminated Packaging:	Handle uncleaned containers like the product itself.	

SECTION 14: Transportation Information		
UN ID#:	UN1544	
ADR / RID (LAND):	N/A	
DOT regulations:	UN1544	
	Class 6.1	
	Packing Group I	
	Proper Shipping Name: Alkaloids, solid, n.o.s. ((-)-6',7',10,11-	
	tetramethoxyemetan dihydrochloride)	
	Poison Inhalation Hazard: No	
IMDG/IMO (SEA):	UN1544	
	Class 6.1	
	Packing Group I	
	EMS-No: F-A, S-A	
	Proper shipping name: ALKALOIDS, SOLID, N.O.S. ((-)-6',7',10,11-	
	tetramethoxyemetan dihydrochloride)	
IATA/DGR (AIR):	UN1544	
	Class 6.1	
	Packing Group I	
	Proper shipping name: Alkaloids, solid, n.o.s. ((-)-6',7',10,11-	
	tetramethoxyemetan dihydrochloride)	
Special Provisions:	N/A	

SECTION 15: Regulatory Information	
Health Phrases:	Danger!
	H300 Fatal if swallowed.
	H315 Causes skin irritation.
	H319 Causes serious eye irritation.
Risk Phrases:	P264 Wash skin thoroughly after handling.
	P270 Do not eat, drink, or smoke when using this product.
	P280 Wear protective gloves/ eye protection/face protection
Safety Phrases:	P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON
	CENTER/doctor. Rinse mouth.
	P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several
	minutes. Remove contact lenses, if present and easy to do. Continue
	rinsing.
	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.
	P405 Store locked up.
	P501 Dispose of contents/container to an approved waste disposal
	plant.
	•
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: Emetine dihydrochloride (CAS 316-42-7)
	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.
	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: Acute toxicity, oral (Cat. 1); Skin irritation (Cat. 2); Eye irritation (Cat. 2A)
WHMIS (Canada):	N/A

## **SECTION 16: Other Information**

**LIABILITY STATEMENT:** The above information is believed to be correct but does not purport to be allinclusive 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.