

## Safety Data Sheet

### Section 1: Product & Company Identification

<b>Product Name:</b>	Ambroxol Hydrochloride
<b>Product #:</b>	A-2533
<b>Synonyms:</b>	NA 872
<b>Supplier:</b>	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego, CA 92131 Tele# + 858-452-9925
<b>Emergency Tele#:</b>	ChemTel, Tele# in USA 1-800-255-3924, International 1-813-248-0585

### Section 2: Composition / Information on Ingredients

Component	CAS #	EC #	% Composition
Ambroxol Hydrochloride	23828-92-4	242-500-3	

### Section 3: Hazards Identification

<b>Symbols</b>	
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#### HMIS Rating

Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard
2		0	0

#### NFPA Rating

Health Hazard	Fire Hazard	Reactivity Hazard
2	0	0

### Section 4: First Aid Measures

<b>General Overview:</b>	Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
<b>Inhalation:</b>	In case of unconsciousness place patient stably in side position for transportation.
<b>Skin:</b>	Immediately wash with water and soap and rinse thoroughly.

<b>Eyes:</b>	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
<b>Ingestion:</b>	Immediately call a doctor.
	See section 11 for more detailed information on health effects & symptoms.

## SECTION 5: Fire Fighting Measures

<b>Flammability of the product:</b>	No data available
<b>Extinguishing Media:</b>	Use fire-fighting measures that suit the environment. A solid water stream may be inefficient.
<b>Hazardous thermal (de)composition products:</b>	No data available
<b>Special Fire Fighting Procedures:</b>	No special measures required.
<b>Flash Point:</b>	No data available





## Section 6: Accidental Release Measures

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

## SECTION 7: Handling & Storage

<b>Storage:</b>	Recommended storage temperature: -20°C
<b>Handling:</b>	No special precautions are necessary if used correctly. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid prolonged or repeated exposure. Keep away from sources of ignition. Take precautionary measures against static discharge

## SECTION 8: Exposure controls / Personal Protection

<b>Respiratory Protection:</b>	 <p>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.</p>
<b>Skin and Body:</b>	  <p>Protective gloves and lab coat.</p>
<b>Eyes:</b>	 <p>Tightly sealed goggles</p>
<b>Ventilation/Engineering Measures:</b>	Ensure adequate ventilation.
<b>Hygiene:</b>	Follow standard good industrial hygiene practices.
<b>Other:</b>	Contains no substances with occupational exposure limit values.

## SECTION 9: Physical and Chemical Properties

<b>Appearance &amp; Odor:</b>	Solid. Characteristic odor.
<b>Formula</b>	$C_{13}H_{18}Br_2N_2O \cdot HCl$
<b>Molecular Wt.</b>	414.6
<b>Melting Pt.</b>	No data available
<b>Boiling Pt.</b>	No data available
<b>Density:</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Vapor Density:</b>	No data available

<b>Solubility:</b>	DMF, DMSO, Ethanol
<b>Flash Point:</b>	No data available
<b>Autoignition Temp:</b>	No data available

## SECTION 10: Stability and Reactivity

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Hazardous decomposition products:</b>	No decomposition if used according to specifications.
<b>Materials to Avoid:</b>	No data available
<b>Conditions to avoid:</b>	No data available

## SECTION 11: Toxicological Information

<b>RTECS#:</b>	GV8423000
<b>ACUTE Toxicity:</b>	<p>Oral LD50 = 13,400 mg/kg (rat)  Intraperitoneal LD50 = 380 mg/kg (rat)</p> <p>Primary irritant effect:</p> <ul style="list-style-type: none"> <li>· on the skin: Irritant to skin and mucous membranes.</li> <li>· on the eye: Irritating effect.</li> <li>· Sensitization: No sensitizing effects known.</li> </ul>
<b>CHRONIC Toxicity:</b>	N/A
<b>Chronic Exposure:</b> <b>Carcinogen:</b> <b>Mutagen:</b> <b>Teratogen:</b> <b>Reproductive:</b>	<p>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.</p> <p>AGGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, potential human carcinogen by AGGIH.</p> <p>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.</p> <p>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.</p> <p>EPA: No classification on carcinogenic data is available from EPA</p>

## SECTION 12: Ecological Information

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

<b>Persistence and degradability:</b>	No data available
<b>Bioaccumulative potential:</b>	No data available
<b>Other adverse effects:</b>	No data available
<b>Corrosivity Characteristic:</b>	No data available
<b>General Notes:</b>	No data available

## SECTION 13: Disposal Considerations

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

## SECTION 14: Transportation Information

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

## SECTION 15: Regulatory Information

<b>Health Phrases:</b>	Warning! H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
<b>Risk Phrases:</b>	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 / eye protection / face protection.
<b>Safety Phrases:</b>	P301+P312 If swallowed: Call a poison center/doctor if you feel unwell. P330 Rinse mouth. P302+P352 If on skin: Wash with plenty of water. P321 Specific treatment (see on this label). P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

	<p>P332+P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local/regional/national/international regulations.</p>
<b>EU Regulations:</b>	N/A
<b>US Regulations:</b>	<p>TSCA: Not listed</p> <p>California Proposition 65: No products were found</p>
<b>U.S. Federal Regulations:</b>	<p>SARA 302/304 emergency planning and notification: No products were found.</p> <p>SARA 311/312 MSDS distribution-chemical inventory-hazard identification: No products were found.</p> <p>SARA 313 toxic chemicals notification and release reporting: No products were found.</p> <p>Clean Water Act (CWA) 307: No products were found.</p> <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); Skin irritation (Cat. 2); Eye irritation (Cat. 2A); Specific target organ toxicity – single exposure (Cat. 3)</p>
<b>WHMIS (Canada):</b>	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.*