

## Safety Data Sheet

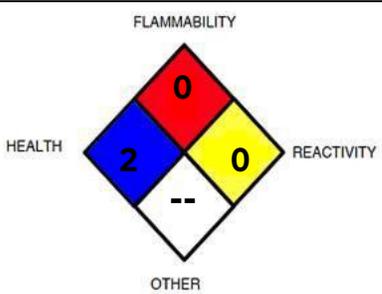
### Section 1: Product & Company Identification

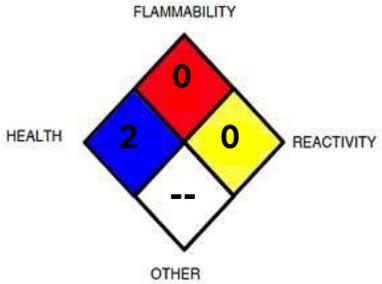
<b>Product Name:</b>	Ouabain
<b>Product #:</b>	O-2535
<b>Synonyms:</b>	3-(6-Deoxy-alpha-L-mannopyranosyloxy)-1,5,11a,14,19-pentahydroxycard-20(22)-enolide; Acocantherin; Strodival; NSC 25485
<b>Supplier:</b>	AG Scientific Holdings, LLC 9950 Scripps Lake Drive, Suite 104 San Diego CA 92131 Tele# + 858-452-9925
<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
Ouabain	630-60-4	-	100

### Section 3: Hazards Identification

<b>Symbols</b>	
<b>HMIS Classification</b>	<p style="text-align: center;">FLAMMABILITY</p>  <p style="text-align: center;">OTHER</p>

<b>NFPA Classification</b>	
----------------------------	---

## Section 4: First Aid Measures

<b>General Overview:</b>	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
<b>Inhalation:</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>Skin:</b>	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
<b>Eyes:</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
<b>Ingestion:</b>	DO NOT induce vomiting. 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

<b>Flammability of the product:</b>	Not flammable or combustible
<b>Extinguishing Media:</b>	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
<b>Hazardous thermal (de)composition products:</b>	No data available
<b>Special Fire Fighting Procedures:</b>	Wear self-contained breathing apparatus for firefighting if necessary.
<b>Flash Point:</b>	No data available

## Section 6: Accidental Release Measures

<b>Personal Precautions:</b>	Use personal protective equipment. Avoid breathing vapors, mist, gas, or dust. Avoid dust formation. Ensure adequate ventilation. Evacuate personnel to safe areas.
<b>Environmental Precautions:</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

<b>Methods for Clean-up:</b>	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
------------------------------	--

## SECTION 7: Handling & Storage

<b>Storage:</b>	Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20°C
<b>Handling:</b>	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

## SECTION 8: Exposure controls / Personal Protection

<b>Respiratory Protection:</b>	 <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>
<b>Skin and Body:</b>	  <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>

<b>Eyes:</b>	 <p>Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).</p>
<b>Ventilation/Engineering Measures:</b>	Avoid dust formation. Ensure adequate ventilation.
<b>Hygiene:</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Other:</b>	Contains no substances with occupational exposure limit values.

## SECTION 9: Physical and Chemical Properties

<b>Appearance &amp; Odor:</b>	White to off-white solid
<b>Formula</b>	$C_{29}H_{44}O_{12}$
<b>Molecular Wt.</b>	584.65
<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>	DMSO (>40 mg/mL)
<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 data available
<b>Materials to Avoid:</b>	Strong oxidizing agents, acids, acid anhydrides
<b>Conditions to avoid:</b>	No data available

## SECTION 11: Toxicological Information

<b>RTECS#:</b>	RN3675000
<b>ACUTE Toxicity:</b>	IVN-RAT LD50: 14 mg/kg; UNR-RAT LD50: 125 mg/kg; ORL-MUS LD50: 5 mg/kg; IPR-MUS LD50: 11 mg/kg; SCU-MUS LD50: 5 mg/kg; IVN-MUS LD50: 2200 µg/kg; ICE-MUS LD50: 69 µg/kg; SCU-RAT LDLo: 50 mg/kg
<b>CHRONIC Toxicity:</b>	N/A
<b>Chronic Exposure:</b> <b>Carcinogen:</b> <b>Mutagen:</b> <b>Teratogen:</b> <b>Reproductive:</b>	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

<b>Ecotoxicity:</b>	No data available
<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>	To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

## SECTION 13: Disposal Considerations

<b>Residue Waste or Unused product:</b>	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
---	--



<b>Contaminated Packaging:</b>	Dispose of as unused product.
--------------------------------	-------------------------------

### SECTION 14: Transportation Information

<b>UN ID#:</b>	3462
<b>ADR / RID (LAND):</b>	N/A
<b>DOT regulations:</b>	UN number: 3462 Class: 6.1 Packing group: III Proper shipping name: Toxic solids, organic, n.o.s. (Ouabain) Poison Inhalation Hazard: No
<b>IMDG/IMO (SEA):</b>	UN number: 3462 Class: 6.1 Packing group: III EMS-No: F-A, S-A Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Ouabain)
<b>IATA/DGR (AIR):</b>	UN number: 3462 Class: 6.1 Packing group: III Proper shipping name: Toxic solid, organic, n.o.s. (Ouabain)
<b>Special Provisions:</b>	N/A

### SECTION 15: Regulatory Information

<b>Health Phrases:</b>	H301 Toxic if swallowed. H331 Toxic if inhaled. H373 May cause damage to organs through prolonged or repeated exposure.
<b>Risk Phrases:</b>	P260 Do not breathe dust/fume/gas/mist/vapors/spray. P264 Wash hands thoroughly after handling.
<b>Safety Phrases:</b>	P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P314 Get medical advice/attention if you feel unwell.
<b>EU Regulations:</b>	R22, R37/38, R40, R53, S22, S24/25, S36/37/39
<b>US Regulations:</b>	TSCA: No products were found California Proposition 65: No products were found Pennsylvania State Right to Know: Listed New Jersey State Right to Know: Listed
<b>U.S. Federal Regulations:</b>	SARA 302/304 emergency planning and notification: No products were found. SARA 311/312 MSDS distribution-chemical inventory-hazard identification: Acute Health Hazard, 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: Acute toxicity, oral (Cat. 3); Acute toxicity, inhalation (Cat. 3); Specific target organ toxicity, repeated exposure (Cat. 2)
<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.*