

## Safety Data Sheet

### Section 1: Product & Company Identification

<b>Product Name:</b>	Clarithromycin
<b>Product #:</b>	C-2645
<b>Synonyms:</b>	A-56268; Antibiotic A 56268; TE 031; 6-O-methyl-erythromycin
<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
Clarithromycin	81103-11-9	617-200-4	≥98

### 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 eyes for several minutes under running water.
<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>	Product is not flammable.
<b>Extinguishing Media:</b>	Use firefighting measures that suit the environment. A solid water stream may be inefficient.
<b>Hazardous thermal (de)composition products:</b>	No further relevant information available.
<b>Special Fire Fighting Procedures:</b>	No special measures required.
<b>Flash Point:</b>	No data available


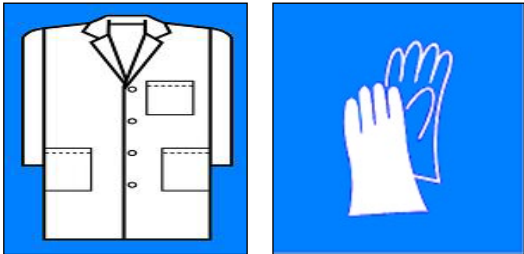

## Section 6: Accidental Release Measures

<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>	Dispose contaminated material as waste according to section 13.

## 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>	$C_{38}H_{69}NO_{13}$
<b>Molecular Wt.</b>	748.0
<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: 1 mg/mL DMSO: 1 mg/mL Ethanol: 1 mg/mL Ethanol:PBS (pH 7.2) (1:1): 0.5 mg/mL
<b>Flash Point:</b>	No data available
<b>Autoignition Temp:</b>	No data available

## SECTION 10: Stability and Reactivity

<b>Stability:</b>	No decomposition if used according to specifications.
<b>Hazardous decomposition products:</b>	Carbon dioxide, carbon monoxide, nitrogen oxides
<b>Materials to Avoid:</b>	Strong oxidizing agents
<b>Conditions to avoid:</b>	No data available

## SECTION 11: Toxicological Information

<b>RTECS#:</b>	KF4997000
<b>ACUTE Toxicity:</b>	Oral TDLO: 30 ml/kg/3D intermittent (woman) LD50: 1,270 mg/kg (rat) Intraperitoneal LD50: 669 mg/kg (rat) Subcutaneous LD50: >5 g/kg (rat)  Primary irritant effect: · on the skin: Irritant to skin and mucous membranes. · on the eye: No irritating effect. · Sensitization: No sensitizing effects known.
<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>	Water hazard class 3 (Self-assessment): extremely hazardous for water. Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.
<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>	Very toxic for fish.

## 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>	UN3077
<b>ADR / RID (LAND):</b>	N/A
<b>DOT regulations:</b>	Environmentally hazardous substance, solid, n.o.s. (Clarithromycin) Class 9 Miscellaneous dangerous substances and articles Label 9 Packing group III  Quantity limitations On passenger aircraft/rail: 400 kg On cargo aircraft only: 400 kg
<b>IMDG/IMO (SEA):</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Clarithromycin) Class 9 Miscellaneous dangerous substances and articles Label 9 Packing group III  Limited quantities (LQ) 5 kg Excepted quantities (EQ) Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

<b>IATA/DGR (AIR):</b>	<p>Environmentally hazardous substance, solid, n.o.s. (Clarithromycin)            Class 9 Miscellaneous dangerous substances and articles            Label 9            Packing group III</p> <p>Remarks: When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.</p>
<b>Special Provisions:</b>	<p>Marine pollutant: Symbol (fish and tree)            Special marking (IATA): Symbol (fish and tree)            Hazard identification number (Kemler code): 90            EMS Number: F-A,S-F            Stowage Category: A            Stowage Code: SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.</p>

## SECTION 15: Regulatory Information

<b>Health Phrases:</b>	<p>Warning!            H302 Harmful if swallowed.            H315 Causes skin irritation.            H361 Suspected of damaging fertility or the unborn child.            H373 May cause damage to organs through prolonged or repeated exposure.            H400 Very toxic to aquatic life.</p>
<b>Risk Phrases:</b>	<p>P201 Obtain special instructions before use.            P202 Do not handle until all safety precautions have been read and understood.            P260 Do not breathe dust/fume/gas/mist/vapors/spray.            P264 Wash thoroughly after handling.            P270 Do not eat, drink or smoke when using this product.            P273 Avoid release to the environment.            P280 Wear protective gloves/protective clothing/eye protection/face protection.</p>
<b>Safety Phrases:</b>	<p>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.            P308+P313 IF exposed or concerned: Get medical advice/attention.            P321 Specific treatment (see on this label).            P314 Get medical advice/attention if you feel unwell.            P362+P364 Take off contaminated clothing and wash it before reuse.            P332+P313 If skin irritation occurs: Get medical advice/attention.            P391 Collect spillage.            P405 Store locked up.            P501 Dispose of contents/container in accordance with local/regional/national/international regulations.</p>

<b>EU Regulations:</b>	N/A
<b>US Regulations:</b>	TSCA: Not listed California Proposition 65: No products were found
<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: 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: Toxic to reproduction (Cat. 2); Specific target organ toxicity - repeated exposure (Cat. 2); Aquatic toxicity - acute (Cat. 1); Acute toxicity - oral (Cat. 4); Skin irritation (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.*