

Safety Data Sheet


Section 1: Product & Company Identification

Product Name:	Geranylgeranyl Alcohol
Product #:	G-1013
Synonyms:	Geranylgeraniol; GG Alcohol
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
Geranylgeranyl Alcohol	24034-73-9		≥85

Section 3: Hazards Identification

Symbols	
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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

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

Eyes:	Rinse opened eyes for several minutes under running water. If symptoms persist, consult a doctor.
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 further relevant information available.
Special Fire Fighting Procedures:	No special measures required.
Flash Point:	N/A


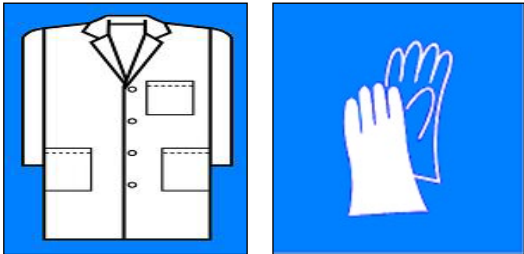

Section 6: Accidental Release Measures

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: -80°C
Handling:	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

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

SECTION 9: Physical and Chemical Properties

Appearance & Odor:	Solid. Characteristic odor.
Formula	$C_{20}H_{34}O$
Molecular Wt.	290.5
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: 30 mg/mL DMSO: 30 mg/mL Ethanol: 30 mg/mL Ethanol:PBS (pH 7.2)(1:2): 0.33 mg/mL
Flash Point:	No data available
Autoignition Temp:	No data available

SECTION 10: Stability and Reactivity

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

SECTION 11: Toxicological Information

RTECS#:	N/A
ACUTE Toxicity:	Primary irritant effect: <ul style="list-style-type: none"> · on the skin: Irritant to skin and mucous membranes. · on the eye: Irritating effect. · Sensitization: No sensitizing effects known. · Additional toxicological information: · Interactive effects No interactive effects between components are known.
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 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
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 / eye protection / face protection.
Safety Phrases:	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).

	<p>P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>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> <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>
EU Regulations:	N/A
US Regulations:	<p>TSCA: Not listed</p> <p>California Proposition 65: No products were found</p>
U.S. Federal Regulations:	<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>
WHMIS (Canada):	N/A

SECTION 16: Other Information

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