
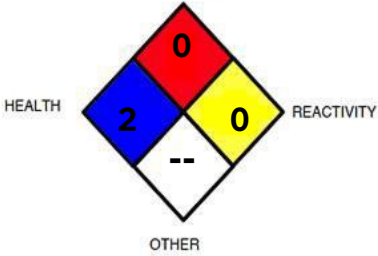
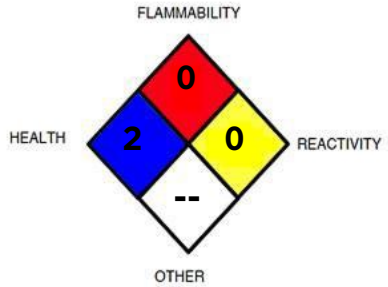


Safety Data Sheet

Section 1: Product & Company Identification	
Product Name:	Thapsigargin
Product #:	T-1014
Synonyms:	Thaps; TG; (3S,3aS,4R,6R,7S,8R)-6-acetoxy-4-(butyryloxy)-3,3a-dihydroxy-3,6,9-trimethyl-8-(((Z)-2-methylbut-2-enoyl)oxy)-2-oxo-2,3,3a,4,5,6,6a,7,8,9b-decahydro-1H-cyclopenta[e]azulen-7-yl octanoate
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
Thapsigargin	67526-95-8	614-076-3	100

Section 3: Hazards Identification	
Symbols	
HMIS Classification	<p style="text-align: center;">FLAMMABILITY</p>  <p style="text-align: center;">OTHER</p>

NFPA Classification	
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Section 4: First Aid Measures

General Overview:	Consult a physician. Show this safety data sheet to the doctor in attendance. May cause sensitization of susceptible persons. Treat symptomatically. May have corrosive effect on eye's cornea.
Inhalation:	Immediate medical attention is required Remove to fresh air If not breathing, give artificial respiration Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Artificial respiration and/or oxygen may be necessary Call a physician Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.
Skin:	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. Wash off immediately with plenty of water. If skin irritation persists, call a physician.
Eyes:	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Ingestion:	Do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water and drink afterwards plenty of water. Call a physician.
	See section 11 for more detailed information on health effects & symptoms.

SECTION 5: Fire Fighting Measures

Flammability of the product:	Not flammable
Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. Solid water stream may be inefficient.
Hazardous thermal (de)composition products:	Carbon oxides
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary. Wear protective suit.

Flash Point:	No data available
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Section 6: Accidental Release Measures




Personal Precautions:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
Methods for Clean-up:	Prevent further leakage or spillage if safe to do so. Contain spill and collect, as appropriate. Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly. Soak up with inert absorbent material. Dam up. Pick up and transfer to properly labeled containers. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water. Take precautionary measures against static discharges. Sweep up and shovel into suitable containers for disposal.

SECTION 7: Handling & Storage

Storage:	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Store at -20°C.
Handling:	Avoid contact with skin, eyes, or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink, or smoke when using this product. Avoid prolonged or repeated exposure

SECTION 8: Exposure controls / Personal Protection

Respiratory Protection:	 <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>
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Skin and Body:	  <p>Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices, and wash and dry hands.</p> <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. The selected protective gloves must satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.</p>
Eyes:	 <p>Use a 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>
Ventilation/Engineering Measures:	<p>Engineering Controls: Showers, Eyewash stations, Ventilation systems Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Use fume hood for routine work.</p>
Hygiene:	<p>Handle in accordance with good industrial hygiene and safety practice.</p>
Other:	<p>This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies</p>

SECTION 9: Physical and Chemical Properties

Appearance & Odor:	White to off-white lyophilized powder
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Formula	C ₃₄ H ₅₀ O ₁₂
Molecular Wt.	650.8
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:	Clear and colorless solution at 10 mg/mL CH ₃ CN
Flash Point:	No data available
Autoignition Temp:	No data available

SECTION 10: Stability and Reactivity

Stability:	Stable under recommended storage conditions.
Hazardous decomposition products:	Carbon oxides
Materials to Avoid:	Strong reducers and oxidizers
Conditions to avoid:	Heat, flames, sparks, sunlight

SECTION 11: Toxicological Information

RTECS#:	RH0352700
ACUTE Toxicity:	LD50 Oral = 2 mg/kg (Rat)
CHRONIC Toxicity:	Investigated as a mutagen and natural product.
Chronic Exposure: Carcinogen: Mutagen: Teratogen: Reproductive:	<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 ACGIH.</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

Ecotoxicity:	This product is not classified as environmentally hazardous according to the UN Model Regulations, nor a marine pollutant according to the IMDG Code.
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:	N/A

SECTION 13: Disposal Considerations

Residue Waste or Unused product:	Dispose of in accordance with local regulations.
Contaminated Packaging:	Dispose of as unused product.

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:	H315 Causes skin irritation (Cat. 2) H319 Causes serious eye irritation (Cat. 2) H335 May cause respiratory irritation (Cat. 1)
Risk Phrases:	P201 Obtain special instructions before use. P264 Wash face, hands, and any exposed skin thoroughly after handling P280 Wear protective gloves/protective clothing/eye protection/face protection
Safety Phrases:	P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water P261 Avoid breathing dust/fume/gas/mist/vapors/spray

	<p>P271 Use only outdoors or in a well-ventilated area P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing P308+P313 If exposed or concerned: Get medical advice/attention</p>
EU Regulations:	<p>This product is registered with the EU ECHA, Number 614-076-3 ANNEX III: Listed REACH: Preregistration process.</p>
US Regulations:	<p>TSCA: Not listed California Proposition 65: Not listed</p>
U.S. Federal Regulations:	<p>SARA 302/304/311/312 extremely hazardous substances: No products were found SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: 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.</p> <p>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: No products were found.</p>
WHMIS (Canada):	<p>This product is Not listed on the Canadian DSL/NDSL.</p>

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.*