

**Safety Data Sheet (SDS)** According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

**Issuing Date:** 2014-03-13

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**Version:** 3

## SECTION 1. Identification

### Product identifier

**Product No** 12758  
**Product name** Thapsigargin

### Recommended use of the chemical and restrictions on use

**Identified uses** For Research Use Only. Not for Use in Diagnostic Procedures.

### Manufacturer, importer, supplier

**Manufacturer address** Cell Signaling Technology, Inc.  
 3 Trask Lane  
 Danvers, MA 01923  
 United States  
 TEL: +1 978 867 2300  
 FAX: +1 978 867 2400  
**Website** www.cellsignal.com  
**Email address** support@cellsignal.com  
**Emergency telephone number** In case of emergency call CHEMTREC 1-800-424-9300

## SECTION 2. Hazard(s) identification

### Classification

This substance/mixture is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<b>Skin corrosion/irritation</b>	Category 2
<b>Serious eye damage/eye irritation</b>	Category 2A
<b>Respiratory sensitization</b>	Category 1
<b>Specific target organ toxicity - single exposure (STOT SE)</b>	Category 3

### GHS Label elements, including precautionary statements



**Signal Word**  
 Danger

**Hazard statement(s)**

Causes skin irritation.  
 Causes serious eye irritation.  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 May cause respiratory irritation.

**Precautionary Statement(s)**

Avoid breathing dust/fume/gas/mist/vapors/spray.  
 Wash face, hands and any exposed skin thoroughly after handling.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 In case of inadequate ventilation wear respiratory protection.  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 IF ON SKIN: Wash with plenty of soap and water  
 If skin irritation occurs: Get medical advice/attention  
 Take off contaminated clothing and wash before reuse  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician  
 Store in a well-ventilated place. Keep container tightly closed.  
 Store locked up.  
 Dispose of contents/container to an approved waste disposal plant.

**Supplementary Hazard Information****Hazards not otherwise classified (HNOC)**

Not applicable.

<b>SECTION 3. Composition/information on ingredients</b>
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<b>Formula</b>	C <sub>34</sub> H <sub>50</sub> O <sub>12</sub>
<b>Molecular Weight</b>	650.75 g/mol
<b>Chemical nature</b>	Monoconstituent substance
<b>Synonyms</b>	Thapsigargin

Chemical name	CAS No	Weight-%
Octanoic acid, 6-(acetyloxy)-2,3,3a,4,5,6,6a,7,8,9b-decahydro-3,3a-dihydroxy-3,6,9-trimethyl-8-((2-methyl-1-oxo-2-but-3-en-1-yl)oxy)-2-oxo-4-(1-oxobutoxy)azuleno(4,5-b)furan-7-yl ester, (3S-(3alpha,3abeta,4alpha,6beta,6abeta,7beta,8alpha(Z),9balpha))-	67526-95-8	100

<b>SECTION 4. First-aid measures</b>
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<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	Move to fresh air.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water.

**Most important symptoms and effects, both acute and delayed**

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**Advice for emergency responders****General advice**

For further assistance, contact your local Poison Control Center.

**Protection of first-aiders**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves

## **SECTION 5. Fire-fighting measures**

**Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

**Specific hazards arising from the chemical**

No information available.

**Explosion Data**

**Sensitivity to Mechanical Impact** None

**Sensitivity to Static Discharge** None

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Ensure adequate ventilation.

**Other information**

No information available.

**Environmental precautions**

Do not flush into surface water or sanitary sewer system.

**Methods and material for containment and cleaning up****Methods for containment**

Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**

Use personal protective equipment. 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 dust formation. Clean contaminated surface thoroughly.

## **SECTION 7. Handling and storage**

**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

<b>Technical measures/Storage conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Packaging material</b>	No information available
<b>Incompatible products</b>	None known based on information supplied

## SECTION 8. Exposure controls/personal protection

### Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriate engineering controls

Showers, eyewash stations, and ventilation systems.

### Individual protection measures, such as personal protective equipment

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

<b>Eye/face protection</b>	Safety glasses with side-shields
<b>Skin and body protection</b>	Wear protective gloves/clothing.
<b>Respiratory protection</b>	In case of inadequate ventilation wear respiratory protection.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Appearance</b>	No information available
<b>Color</b>	Colorless
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
<b>pH</b>	No information available		
<b>Melting point/freezing point</b>	No information available		
<b>Boiling point or initial boiling point and boiling range</b>	No information available		
<b>Flash point</b>	No information available		
<b>Evaporation rate</b>	No information available		
<b>Flammability</b>	No information available		
<b>Lower explosion limit</b>	No information available		
<b>Upper explosion limit</b>	No information available		
<b>Vapor pressure</b>	No information available		
<b>Relative vapor density</b>	No information available		
<b>Density and/or relative density</b>	No information available		
<b>Solubility</b>	No information available.		
<b>Solubility in other solvents</b>	No information available.		
<b>Partition coefficient: n-octanol/water</b>	No information available		
<b>Autoignition temperature</b>	No information available		
<b>Decomposition temperature</b>	No information available		
<b>Viscosity</b>	No information available		
<b>Viscosity, dynamic</b>	No information available		

**Other information**

<b>Softening point</b>	No information available
<b>Molecular Weight</b>	650.75 g/mol
<b>VOC content</b>	No information available
<b>Liquid Density</b>	No information available
<b>Bulk density</b>	No information available

**SECTION 10. Stability and reactivity****Reactivity**

No information available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

<b>Hazardous reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	None under normal processing.

**Conditions to Avoid**

No information available

**Incompatible Materials**

None known based on information supplied

**Hazardous Decomposition Products**

None known based on information supplied

**SECTION 11. Toxicological information****Information on likely routes of exposure**

<b>Inhalation</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Inhalation of vapors in high concentration may cause irritation of respiratory system.
<b>Eye contact</b>	Irritating to eyes.
<b>Skin contact</b>	Irritating to skin.
<b>Ingestion</b>	Ingestion may cause irritation to mucous membranes.

**Information on toxicological effects**

This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Symptoms</b>	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.
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<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Sensitization</b>	Repeated or prolonged contact may cause allergic reactions in very susceptible persons.
<b>Mutagenic effects</b>	No information available.
<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	Respiratory system.
<b>STOT - repeated exposure</b>	No information available.
<b>Neurological effects</b>	No information available.
<b>Aspiration Hazard</b>	No information available.

## SECTION 12. Ecological information

### Ecotoxicity

100% of the mixture consists of components of unknown hazards to the aquatic environment.

<b>Persistence and degradability</b>	No information available
<b>Mobility</b>	No information available
<b>Bioaccumulation</b>	No information available

### Other adverse effects

No information available.

## SECTION 13. Disposal considerations

### Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

### Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way. Dispose of wastes in an approved waste disposal facility.

## SECTION 14. Transport information

This material is not subject to regulation as a hazardous material for shipping.


## SECTION 15. Regulatory information

### North American Inventory Listing

Chemical name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL
Octanoic acid, 6-(acetyloxy)-2,3,3a,4,5,6,6a,7,	Not Listed	Not Listed	Not Listed	Not Listed

8,9b-decahydro-3,3a-dihydroxy-3,6,9-trimethyl-8-((2-methyl-1-oxo-2-butenyl)oxy)-2-oxo-4-(1-oxobutoxy)azuleno(4,5-b)furan-7-yl ester, (3S-(3alpha,3abeta,4alpha,6beta,6abeta,7beta,8alpha(Z),9balpha))-				
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**Canadian Workplace Hazardous Materials Information System (WHMIS) Classification**

	Class D2A - Very Toxic Material at $\geq 0.1\%$ Class D2B - Toxic Material at $\geq 1\%$
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**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

**U.S. FIFRA Label Information**

This product does not contain any substances regulated as pesticides.

**US Commerce Department - Export Administration Regulations Information**

This product does not contain any substances regulated under the Chemical Weapons Convention (CWC).

**U.S. Drug Enforcement Administration Information**

This product does not contain any substances regulated under the DEA.

<b>SECTION 16. Other information</b>
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**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet