

Issuing Date: 2024-10-22

Version: 1

1. Identification

A. Product identifier

Product name Thapsigargin
Synonyms Thapsigargin.
Product Code(s) 12758
CAS No 67526-95-8

B. Relevant identified uses of the substance or mixture and uses advised against

Identified uses For Research Use Only. Not for Use in Diagnostic Procedures.
Uses advised against No information available

C. Supplier's details

Manufacturer

Cell Signaling Technology, Inc.
 3 Trask Lane
 Danvers, MA 01923
 United States
 TEL: +1 978 867 2300
 FAX: +1 978 867 2400

Supplier

Seoulin Bioscience Co., Ltd.
 경기도 성남시 분당구 대왕판교로 700
 TEL: 1670-5911
 E-mail: support@seoulin.co.kr

Supplier

Koram Biotech Co., Ltd.
 서울시 강남구 선릉로 76길 4
 TEL: 02-556-0311
 Email: koram@korambiotech.com

For further information, please contact

Email address support@cellsignal.com

Emergency telephone number **CHEMTREC** 24 hours a day, 7 days a week, 365 days a year
 +1 703 527 3887 (INTERNATIONAL) +1 800 424 9300 (NORTH AMERICA)
 080-880-0468

2. Hazard(s) identification

A. Classification of the substance or mixture

| | |
|--|------------|
| Skin corrosion/irritation | Category 2 |
| Serious eye damage/eye irritation | Category 2 |
| Respiratory sensitization | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |

B. GHS Label elements, including precautionary statements

**Signal Word**

Danger

Hazard Statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 - May cause respiratory irritation

Precautionary Statements - Prevention

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.

Precautionary Statements - Response

Call a POISON CENTER or doctor/physician if you feel unwell.

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 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 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.

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

C. Other hazards which do not result in classification

Not applicable

3. Composition/information on ingredients**Synonyms** Thapsigargin.**Formula** C₃₄H₅₀O₁₂

| Chemical name | CAS No | Weight-% | Other information |
|---|------------|----------|-------------------|
| 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-butenyl)oxy)-2-o | 67526-95-8 | 100 | |

| | | | |
|--|--|--|--|
| xo-4-(1-oxobutoxy)azuleno(4,5-b)furan -7-yl ester, (3S-(3alpha,3abeta,4alpha,6beta,6abe ta,7beta,8alpha(Z),9balpha))- | | | |
|--|--|--|--|

4. First-aid measures

- | | |
|-----------------------------------|--|
| A. In case of eye contact | Rinse thoroughly with plenty of water, also under the eyelids. |
| B. In case of skin contact | Wash skin with soap and water. |
| C. In case of inhalation | Remove to fresh air. |
| D. In case of ingestion | Clean mouth with water and afterwards drink plenty of water. |

E. Indication of immediate medical attention and special treatment needed, if necessary

| | |
|---------------------------|------------------------|
| Note to physicians | Treat symptomatically. |
|---------------------------|------------------------|

Symptoms 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.

5. Fire-fighting measures

A. Suitable (and unsuitable) extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available

| | |
|--|---------------------------|
| B. Specific hazards arising from the chemical | No information available. |
|--|---------------------------|

C. Special Protective Equipment for Firefighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

| | |
|-----------------------------|--|
| Personal precautions | Evacuate personnel to safe areas Ensure adequate ventilation |
|-----------------------------|--|

For emergency responders Use personal protection recommended in Section 8.

B. Environmental precautions Do not flush into surface water or sanitary sewer system.

C. 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. |
|--------------------------------|--|

Prevention of secondary hazardsClean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and storage

A. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

B. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

8. Exposure controls/personal protection

A. Control Parameters

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

B. Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Environmental exposure controls No information available.

C. Personal Protective Equipment

Respiratory protection In case of inadequate ventilation wear respiratory protection.

Eye protection Safety glasses with side-shields

Hand protection Impervious gloves.

Body protection Wear suitable protective clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

- A. **Physical State** Solid
color Colorless
- B. **Odor** No information available
- C. **Odor Threshold** No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|-----------------|--------------------------|-------------------------|
| D. pH | No information available | None known |

| | | |
|---|---------------------------|--------------------------|
| E. Melting point/freezing point | No information available | None known |
| F. Initial boiling point and boiling range | No information available | None known |
| G. Flash point | No information available | None known |
| H. Evaporation rate | No information available | None known |
| I. Flammability | No information available | None known |
| J. Upper/lower flammability or explosive limits | | |
| Upper explosion limit | No information available. | No information available |
| Lower explosion limit | No information available. | No information available |
| K. Vapor pressure | No information available | None known |
| L. Solubility(ies) | | |
| Solubility | No information available. | None known |
| Solubility in other solvents | No information available | None known |
| M. Relative vapor density | No information available | None known |
| N. Specific Gravity | No information available | None known |
| O. Partition coefficient: n-octanol/water | No information available | None known |
| P. Autoignition Point | No information available | None known |
| Q. Decomposition temperature | No information available | None known |
| R. Viscosity | | |
| Viscosity | No information available | None known |
| Viscosity, dynamic | No information available | None known |
| S. Molecular Weight | 650.75 g/mol | |
| Other information | | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |
| Softening point | No information available | |
| VOC content | No information available | |
| Liquid Density | No information available | |

10. Stability and reactivity

A. Chemical stability and possibility of hazardous reactions

| | |
|------------------------------------|---------------------------------|
| Stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Explosion Data | |
| Sensitivity to mechanical impact | None |
| Sensitivity to static discharge | None |

B. Conditions to Avoid None known based on information supplied

C. Incompatible products No information available

D. Hazardous Decomposition Products None known based on information supplied

11. Toxicological information

A. Information on the likely routes of exposure

Product Information

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

B. Health hazards information

Numerical measures of toxicity No information available

Unknown Acute Toxicity

200 % of the mixture consists of ingredient(s) of unknown toxicity

| | |
|--|--|
| Skin corrosion/irritation | Causes skin irritation. |
| Serious eye damage/eye irritation | Causes serious eye irritation |
| Sensitization | Repeated or prolonged contact may cause allergic reactions in very susceptible persons |
| Carcinogenicity | No information available. |
| Mutagenic effects | No information available |
| Reproductive toxicity | No information available. |
| Specific target organ toxicity (STOT) – single exposure | Respiratory system |
| Specific target organ toxicity (STOT) – repeated exposure | No information available |
| Target Organ Effects | No information available. |
| Aspiration hazard | No information available. |

12. Ecological information

| | |
|---|---|
| A. Ecotoxicity | The environmental impact of this product has not been fully investigated. |
| Percentage for unknown hazards | 100 % of the mixture consists of component(s) of unknown hazards to the aquatic environment |
| B. Persistence and degradability | No information available. |
| C. Bioaccumulative potential | No information available. |
| D. Mobility in soil | No information available. |

E. Other adverse effects No information available.

13. Disposal considerations

A. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

B. Disposal considerations

Contaminated packaging Do not reuse empty containers.

14. Transport information

A. UN number Not regulated
 B. UN proper shipping name Not regulated
 C. Transport hazard class(es) Not regulated
 D. Packing group Not regulated
 E. Marine Pollutant Not regulated
 F. Special precautions for user No information available

15. Regulatory information

A. Industrial Safety and Health Law Not applicable

Harmful substances subject to control Not applicable
Harmful agents subject to work environment monitoring Not applicable
Harmful agents subject to workers requiring health examination Not applicable

B. Chemicals Control Act not applicable
Chemicals Control Act (CCA) - Accident Precaution Chemicals Not applicable

C. Safety Control of Dangerous Substances Act No information available

D. Wastes Management Dispose of waste in accordance with environmental legislation.

E. Other Regulations No information available

International inventories

TSCA 8(b) Contact supplier for inventory compliance status.
DSL/NDL Contact supplier for inventory compliance status.
EINECS/ELINCS Contact supplier for inventory compliance status.
ENCS Contact supplier for inventory compliance status.
IECSC Contact supplier for inventory compliance status.
KECL Contact supplier for inventory compliance status.
PICCS Contact supplier for inventory compliance status.
AICS Contact supplier for inventory compliance status.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - *European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances*
 ENCS - *Japan Existing and New Chemical Substances*
 IECSC - *China Inventory of Existing Chemical Substances*
 KECL - *Korean Existing and Evaluated Chemical Substances*
 PICCS - *Philippines Inventory of Chemicals and Chemical Substances*
 AICS - *Australian Inventory of Chemical Substances*

16. Other information

A. Information source and references

Prepared By No information available.

B. Issuing Date: 2024-10-22

C. Revision number and date

Version: 1

D. Other information .

Key or legend to abbreviations and acronyms used in the safety data sheet

IMDG International Maritime Dangerous Goods (IMDG)

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| | | | |
|----------|-----------------------|-------|---------------------------|
| TWA: | Time weighted average | STEL: | Short term exposure limit |
| Ceiling: | Maximum limit value: | * | Skin designation |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AELG(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 Japan GHS Classification
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)
 National Library of Medicine's ChemID Plus (NLM CIP)
 National Library of Medicine's PubMed database (NLM PUBMED)
 National Toxicology Program (NTP)
 New Zealand's Chemical Classification and Information Database (CCID)
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program
 Organization for Economic Co-operation and Development Screening Information Data Set
 RTECS (Registry of Toxic Effects of Chemical Substances)
 World Health Organization

Disclaimer

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End of Safety Data Sheet