

ALFAA14481

## Strontium isopropoxide

### SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**产品说明:**  
**Product Description:** 异丙醇锶  
**Strontium isopropoxide**

**Cat No. :** 14481  
**CAS No** 88863-33-6  
**Molecular Formula** Sr[OCH(CH3)2 ]2

**Supplier** Avocado Research Chemicals Ltd.  
(Part of Thermo Fisher Scientific)  
Shore Road, Heysham  
Lancashire, LA3 2XY,  
United Kingdom  
Office Tel: +44 (0) 1524 850506  
Office Fax: +44 (0) 1524 850608

**Emergency Telephone Number** For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

**E-mail address** begel.sdsdesk@thermofisher.com

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

### SECTION 2. HAZARD IDENTIFICATION

**Physical State**  
Solid

**Appearance**  
No information available

**Odor**  
No information available

**Emergency Overview**

Flammable solid. Self-heating in large quantities; may catch fire. Causes severe skin burns and eye damage. Moisture sensitive.  
Air sensitive.

#### Classification of the substance or mixture

|                                   |              |
|-----------------------------------|--------------|
| Flammable solids.                 | Category 2   |
| Self-heating substances/mixtures  | Category 2   |
| Skin Corrosion/Irritation         | Category 1 C |
| Serious Eye Damage/Eye Irritation | Category 1   |

#### Label Elements



**Strontium isopropoxide****Signal Word****Danger****Hazard Statements**

H228 - Flammable solid

H252 - Self-heating in large quantities; may catch fire

H314 - Causes severe skin burns and eye damage

**Precautionary Statements****Prevention**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P235 + P410 - Keep cool. Protect from sunlight

P240 - Ground and bond container and receiving equipment

P264 - Wash face, hands and any exposed skin thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves/protective clothing/eye protection/face protection

**Response**

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

P362 + P364 - Take off contaminated clothing and wash it before reuse

**Storage**

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P407 - Maintain air gap between stacks/pallets

P420 - Store away from other materials

**Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**Physical and Chemical Hazards**

Combustible material. Self-heating in large quantities; may catch fire.

**Health Hazards**

Corrosive. Causes skin and eye burns.

**Environmental hazards**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants. Is not likely mobile in the environment due its low water solubility. Spillage unlikely to penetrate soil.

This product does not contain any known or suspected endocrine disruptors.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

| Component              | CAS No     | Weight % |
|------------------------|------------|----------|
| Strontium isopropoxide | 88863-33-6 | <=100    |

**SECTION 4. FIRST AID MEASURES****General Advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

**Eye Contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Keep eye wide open while rinsing.

**Skin Contact**

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.

**Inhalation**

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Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Ingestion**

Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects**

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

**Self-Protection of the First Aider**

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

**Notes to Physician**

Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

CO<sub>2</sub>, dry chemical, dry sand, alcohol-resistant foam.

**Extinguishing media which must not be used for safety reasons**

No information available.

**Specific Hazards Arising from the Chemical**

The product causes burns of eyes, skin and mucous membranes.

**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. Thermal decomposition can lead to release of irritating gases and vapors.

**SECTION 6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

**Environmental Precautions**

Should not be released into the environment. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological Information. Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up**

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

Refer to protective measures listed in Sections 8 and 13.

**SECTION 7. HANDLING AND STORAGE****Handling**

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance.

**Storage**

Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place.

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**Specific Use(s)**

Use in laboratories

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters****Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust MDHS 91 Metals and metalloids in workplace air by X-ray fluorescence spectrometry MDHS 99 Metals in air by ICP-AES

**Exposure Controls****Engineering Measures**

Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

**Personal protective equipment**

**Eye Protection** Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments        |
|----------------|-------------------|-----------------|-------------|-----------------------|
| Nitrile rubber | 480 minutes       | 0.11mm          | EN 374      | (minimum requirement) |

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Skin and body protection** Long sleeved clothing

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** In case of insufficient ventilation, wear suitable respiratory equipment  
**Recommended Filter type:** Particulates filter conforming to EN 143

**Small scale/Laboratory use** Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. When RPE is used a face piece Fit Test should be conducted

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

**Physical State** Solid

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|  |  |  |
|--|--|--|
| <b>Odor</b>                                    | No information available                             |  |
| <b>Odor Threshold</b>                          | No data available                                    |  |
| <b>pH</b>                                      | No information available                             |  |
| <b>Melting Point/Range</b>                     | 130 °C / 266 °F                                      | (with decomposition)                     |
| <b>Softening Point</b>                         | No data available                                    |  |
| <b>Boiling Point/Range</b>                     | No information available                             |  |
| <b>Flash Point</b>                             | No information available                             | <b>Method -</b> No information available |
| <b>Evaporation Rate</b>                        | Not applicable                                       | Solid                                    |
| <b>Flammability (solid,gas)</b>                | No information available                             |  |
| <b>Explosion Limits</b>                        | No data available                                    |  |
| <b>Vapor Pressure</b>                          | No data available                                    |  |
| <b>Vapor Density</b>                           | Not applicable                                       | Solid                                    |
| <b>Specific Gravity / Density</b>              | No data available                                    |  |
| <b>Bulk Density</b>                            | No data available                                    |  |
| <b>Water Solubility</b>                        | Insoluble in water                                   |  |
| <b>Solubility in other solvents</b>            | No information available                             |  |
| <b>Partition Coefficient (n-octanol/water)</b> |  |  |
| <b>Autoignition Temperature</b>                | No data available                                    |  |
| <b>Decomposition Temperature</b>               | No data available                                    |  |
| <b>Viscosity</b>                               | Not applicable                                       | Solid                                    |
| <b>Explosive Properties</b>                    | No information available                             |  |
| <b>Oxidizing Properties</b>                    | No information available                             |  |
| <b>Molecular Formula</b>                       | Sr[OCH(CH <sub>3</sub> ) <sub>2</sub> ] <sub>2</sub> |  |
| <b>Molecular Weight</b>                        | 205.82   |  |

## SECTION 10. STABILITY AND REACTIVITY

|                                 |                                    |
|---------------------------------|------------------------------------|
| <b>Stability</b>                | Air sensitive. Moisture sensitive. |
| <b>Hazardous Reactions</b>      | None under normal processing.      |
| <b>Hazardous Polymerization</b> | No information available.          |
| <b>Conditions to Avoid</b>      | None known.                        |
| <b>Materials to avoid</b>       | No information available.          |

**Hazardous Decomposition Products** Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Strontium oxide.

## SECTION 11. TOXICOLOGICAL INFORMATION

## Product Information

|   |                   |
|---|-------------------|
| <b>(a) acute toxicity;</b>                    |                   |
| <b>(b) skin corrosion/irritation;</b>         | Category 1 C      |
| <b>(c) serious eye damage/irritation;</b>     | Category 1        |
| <b>(d) respiratory or skin sensitization;</b> |                   |
| <b>Respiratory</b>                            | No data available |
| <b>Skin</b>                                   | No data available |
| <b>(e) germ cell mutagenicity;</b>            | No data available |

**Strontium isopropoxide**

|  |  |
|--|--|
| <b>(f) carcinogenicity;</b>                      | No data available<br>There are no known carcinogenic chemicals in this product   |
| <b>(g) reproductive toxicity;</b>                | No data available  |
| <b>(h) STOT-single exposure;</b>                 | No data available  |
| <b>(i) STOT-repeated exposure;</b>               | No data available  |
| <b>Target Organs</b>                             | No information available.  |
| <b>(j) aspiration hazard;</b>                    | Not applicable<br>Solid  |
| <b>Symptoms / effects,both acute and delayed</b> | Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |

**SECTION 12. ECOLOGICAL INFORMATION**

|  |   |
|--|---|
| <b>Ecotoxicity effects</b>                   | May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system. |
| <b>Persistence and Degradability</b>         | Product contains heavy metals. Discharge into the environment must be avoided. Special pre-treatment is necessary |
| <b>Persistence</b>                           | Insoluble in water, May persist.  |
| <b>Degradation in sewage treatment plant</b> | Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.   |
| <b>Bioaccumulative Potential</b>             | May have some potential to bioaccumulate; Product has a high potential to bioconcentrate                          |
| <b>Mobility in soil</b>                      | Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water solubility          |
| <b>Endocrine Disruptor Information</b>       | This product does not contain any known or suspected endocrine disruptors   |
| <b>Persistent Organic Pollutant</b>          | This product does not contain any known or suspected substance  |
| <b>Ozone Depletion Potential</b>             | This product does not contain any known or suspected substance  |

**SECTION 13. DISPOSAL CONSIDERATIONS**

|  |  |
|--|--|
| <b>Waste from Residues/Unused Products</b> | Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.   |
| <b>Contaminated Packaging</b>              | Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.   |
| <b>Other Information</b>                   | Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. |

## Strontium isopropoxide

## SECTION 14. TRANSPORT INFORMATION

Road and Rail Transport

**UN-No** UN3205  
**Proper Shipping Name** Alkaline earth metal alcoholates, n.o.s  
**Technical Shipping Name** (Strontium isopropoxide)  
**Hazard Class** 4.2  
**Packing Group** III

IMDG/IMO

**UN-No** UN3205  
**Proper Shipping Name** Alkaline earth metal alcoholates, n.o.s  
**Technical Shipping Name** (Strontium isopropoxide)  
**Hazard Class** 4.2  
**Packing Group** III

IATA

**UN-No** UN3205  
**Proper Shipping Name** Alkaline earth metal alcoholates, n.o.s  
**Technical Shipping Name** (Strontium isopropoxide)  
**Hazard Class** 4.2  
**Packing Group** III

**Special Precautions for User** No special precautions required

## SECTION 15. REGULATORY INFORMATION

**International Inventories**

X = listed, China (IECSC), Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDL), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), Korea (KECL).

| Component              | The Inventory of Hazardous Chemicals (2015 Edition) | List of dangerous goods GB 12268 - 2012 | TCSI | IECSC | EINECS | TSCA | DSL | PICCS | ENCS | ISHL | AICS | KECL |
|------------------------|---|---|------|-------|--------|------|-----|-------|------|------|------|------|
| Strontium isopropoxide | -   | -                                       | X    | -     | -      | -    | -   | -     | -    | -    | -    | -    |

**National Regulations**

## SECTION 16. OTHER INFORMATION

**Prepared By** Health, Safety and Environmental Department  
**Revision Date** 03-May-2024  
**Revision Summary** New emergency telephone response service provider.

**Training Advice**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

**Strontium isopropoxide****Legend****CAS** - Chemical Abstracts Service**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**IECSC** - Chinese Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**ENCS** - Japanese Existing and New Chemical Substances**AICS** - Australian Inventory of Chemical Substances**NZIoC** - New Zealand Inventory of Chemicals**WEL** - Workplace Exposure Limit**ACGIH** - American Conference of Governmental Industrial Hygienists**DNEL** - Derived No Effect Level**RPE** - Respiratory Protective Equipment**LC50** - Lethal Concentration 50%**NOEC** - No Observed Effect Concentration**PBT** - Persistent, Bioaccumulative, Toxic**TWA** - Time Weighted Average**IARC** - International Agency for Research on Cancer**PNEC** - Predicted No Effect Concentration**LD50** - Lethal Dose 50%**EC50** - Effective Concentration 50%**POW** - Partition coefficient Octanol:Water**vPvB** - very Persistent, very Bioaccumulative**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road**OECD** - Organisation for Economic Co-operation and Development**BCF** - Bioconcentration factor**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code**MARPOL** - International Convention for the Prevention of Pollution from Ships**ATE** - Acute Toxicity Estimate**VOC** - (Volatile Organic Compound)**Key literature references and sources for data**<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**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**