# AKS786 - STRONTIUM HEXAFLUORO-2,4-PENTANEDIONATE

**Safety Data Sheet AKS786**  
Date of issue: 12/30/2014  
Revision date: 11/15/2018  
Version: 2.1

## SECTION 1: Identification

### 1.1. Identification

- **Product name**: STRONTIUM HEXAFLUORO-2,4-PENTANEDIONATE  
- **Product code**: AKS786  
- **Product form**: Substance  
- **Physical state**: Solid  
- **Formula**: C10H2F12O4Sr  
- **Synonyms**: STRONTIUM HFAC  
- **Chemical family**: METAL COMPOUND  

### 1.2. Recommended use and restrictions on use

- **Recommended use**: Chemical intermediate

### 1.3. Supplier

**GELEST, INC.**  
11 East Steel Road  
Morrisville, PA 19067  
USA  
T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST  
info@gelest.com - www.gelest.com

### 1.4. Emergency telephone number

- **Emergency number**: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

- **GHS-US classification**
  - **Skin corrosion/irritation Category 2**: H315 - Causes skin irritation
  - **Serious eye damage/eye irritation Category 2A**: H319 - Causes serious eye irritation

### Full text of H statements: see section 16

### 2.2. GHS Label elements, including precautionary statements

- **GHS US labeling**
  - **Hazard pictograms (GHS US)**:  
  - **Signal word (GHS US)**: Warning
  - **Hazard statements (GHS US)**:  
    - H315 - Causes skin irritation  
    - H319 - Causes serious eye irritation
  - **Precautionary statements (GHS US)**:  
    - P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
    - P584 - Wash hands thoroughly after handling.  
    - P302+P352 - If on skin: Wash with plenty of soap and water  
    - P332+P313 - If skin irritation occurs: Get medical advice/attention.  
    - P305+P351+P338 - If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
    - P337+P313 - If eye irritation persists: Get medical advice/attention.  
    - P362 - Take off contaminated clothing and wash before reuse.  
    - P321 - Specific treatment (see first aid instructions on this label)

### 2.3. Hazards not otherwise classified (HNOC)

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

- **Substance type**: Mono-constituent  
- **Name**: STRONTIUM HEXAFLUORO-2,4-PENTANEDIONATE  
- **CAS-No.**: 1245785-21-0
STRONTIUM HEXAFLUORO-2,4-PENTANEDIONATE
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Name: Strontium hexafluoro-2,4-pentanedionate
Product identifier: (CAS No.) 1245785-21-0
%: 96 - 100
GHS-US classification: Skin Irrit. 2, H315
Eye Irrit. 2A, H319

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures
First-aid measures general: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.
First-aid measures after inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact: Wash with plenty of soap and water. Get medical advice/attention.
First-aid measures after eye contact: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)
Symptoms/effects after inhalation: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact: Causes skin irritation.
Symptoms/effects after eye contact: Causes serious eye irritation.
Symptoms/effects after ingestion: In general, soluble strontium salts, such as the chloride and sulfide, have been reported to have a low order of toxicity, similar to calcium. However, specific data for this compound has not been developed.

4.3. Immediate medical attention and special treatment, if necessary
No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media
Unsuitable extinguishing media: None known.

5.2. Specific hazards arising from the chemical
Fire hazard: Irritating, toxic fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

5.3. Special protective equipment and precautions for fire-fighters
Firefighting instructions: Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Protective equipment: Wear protective equipment as described in Section 8.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: “Exposure controls/personal protection”.

6.2. Environmental precautions
Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up
For containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections
See Heading 8. Exposure controls and personal protection.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.

Hygiene measures: Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Keep container tightly closed.
Incompatible materials: Air. Carbon dioxide.
Storage area: Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
| Strontium hexafluoro-2,4-pentanedionate (1245785-21-0) |
|---------------------------|---------------------------|
| OSHA                      | OSHA PEL (TWA) (mg/m³)    |
|                           | 2.5 mg/m³ (fluoride)      |

8.2. Appropriate engineering controls
Appropriate engineering controls: Provide local exhaust or general room ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:
Neoprene or nitrile rubber gloves

Eye protection:
Chemical goggles. Contact lenses should not be worn

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Crystals</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>501.75 g/mol</td>
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<tr>
<td>Color</td>
<td>Off-white</td>
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<tr>
<td>Odor</td>
<td>Characteristic</td>
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<td>Odor threshold</td>
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<tr>
<td>Refractive index</td>
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<tr>
<td>pH</td>
<td>No data available</td>
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<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
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</tr>
<tr>
<td>Melting point</td>
<td>260 °C decomposes</td>
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<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>220 °C @ 0.02 mm Hg sub</td>
</tr>
<tr>
<td>Flash point</td>
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<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
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<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>% Volatiles</td>
<td>&lt; 3 %</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Solubility</td>
<td>Insoluble in water.</td>
</tr>
<tr>
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</tr>
<tr>
<td>Log Kow</td>
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<tr>
<td>Viscosity, kinematic</td>
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<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Stable in sealed containers. Absorbs moisture.

10.3. Possibility of hazardous reactions
Material decomposes slowly in contact with air by reaction with air and carbon dioxide, liberating and strontium hydroxide.

10.4. Conditions to avoid
Moisture sensitive.

10.5. Incompatible materials
Air. Carbon dioxide.

10.6. Hazardous decomposition products
At elevated temperature (>260°C), organic acid vapors, strontium oxide and strontium fluoride fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified
Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : Causes skin irritation.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : In general, soluble strontium salts, such as the chloride and sulfide, have been reported to have a low order of toxicity, similar to calcium. However, specific data for this compound has not been developed.

Reason for classification : Expert judgment

SECTION 12: Ecological information

12.1. Toxicity
No additional information available

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available
12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods
Sewage disposal recommendations : Do not dispose of waste into sewer.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number
Not regulated for transport.

14.2. UN proper shipping name
Not applicable

14.3. Additional information
Other information : No supplementary information available.

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations
STRONTIUM HEXAFLUORO-2,4-PENTANEDIONATE (1245785-21-0)
TSCA Exemption/Exclusion
Low Volume Exemption in accordance with 40 CFR 723.50(c)(1). Use of this substance is restricted to use in catalyst for polymer synthesis. Anyone who intends to use this chemical substance for commercial purposes must comply with specific use restrictions and controls specified herein. This LVE limits site of manufacture of this substance to Gelest, Inc. unless otherwise approved by U.S. EPA

Strontium hexafluoro-2,4-pentanedionate (1245785-21-0)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations
CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Full text of H-phrases::

| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
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Abbreviations and acronyms
Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

Hazard Rating
Health: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Prepared by safety and environmental affairs.
Date of issue: 12/30/2014 Revision date: 11/15/2018 Version: 2.1

SDS US (GHS HazCom 2012) - Custom
According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
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NOTICE OF TSCA USE RESTRICTIONS AND REQUIRED CONTROLS FOR AKS786
STRONTIUM HEXAFLUORO-2,4-PENTANEDIONATE

Dear Customer:

The chemical product purchased, AKS786 has been granted a Low Volume Exemption by the U.S. Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA) regulations (40 CFR 723.50). Any manufacturer or processor who intends to use this chemical substance for commercial purposes must comply with the specific use restrictions and controls specified as follows:

USE OF THIS CHEMICAL SUBSTANCE IS RESTRICTED TO: Catalyst for polymer synthesis

CONTROLS: Workers must use personal protection equipment to limit dermal and inhalation exposures as described in Section 8: Exposure Controls/Personal Protection of the Safety Data Sheet (SDS). These exposure controls include:

Hand protection: Impervious gloves (neoprene or nitrile rubber gloves)
Eye Protection: Chemical goggles. Contact lenses should not be worn.
Skin and Body Protection: Wear suitable protective clothing.
Respiratory Protection: Air-purifying respirator with dust and mist cartridge.

WASTE DISPOSAL: Customer must rinse containers with solvent prior to disposal. Residues and wash solvents must be containerized for off-site disposal by incineration at licensed waste disposal facility. Do not release to publicly owned treatment works (POTW) via sewer or to surface waters.

If you have questions or need more information related to allowable use of this substance, contact Gelest Regulatory Affairs at 215-547-1015.

Best Regards,

Gelest, Inc.
Regulatory Affairs Department