

SAFETY DATA SHEET

Creation Date 12-Feb-2015

Revision Date 14-Feb-2020

Revision Number 2

1. Identification

Product Name

Caesium Nitrate

Cat No. :

12884

CAS-No

7789-18-6

Synonyms

Nitric acid, cesium salt; Caesium nitrate; Cesium(I) nitrate (1:1)

Recommended Use

Laboratory chemicals.

Uses advised against

Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Alfa Aesar

Thermo Fisher Scientific Chemicals, Inc.

30 Bond Street

Ward Hill, MA 01835-8099

Tel: 800-343-0660

Fax: 800-322-4757

Email: tech@alfa.com

www.alfa.com

Emergency Telephone Number

During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660.

After normal business hours, call Carechem 24 at (866) 928-0789.

2. Hazard(s) identification

Classification

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

Oxidizing solids
Acute oral toxicity
Reproductive Toxicity

Category 1
Category 4
Category 2

Label Elements

Signal Word

Danger

Hazard Statements

May cause fire or explosion; strong oxidizer

Harmful if swallowed

Suspected of damaging fertility

**Precautionary Statements****Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Wear protective gloves/protective clothing/eye protection/face protection
 Keep/Store away from clothing/ other combustible materials
 Take any precaution to avoid mixing with combustibles
 Do not eat, drink or smoke when using this product
 Wash hands and face thoroughly after handling
 Contaminated work clothing should not be allowed out of the workplace

Response

IF exposed or concerned: Get medical attention/advice

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction
 Explosion risk in case of fire
 In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion

Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

| Component | CAS-No | Weight % |
|-----------------|-----------|----------|
| Caesium nitrate | 7789-18-6 | >95 |

4. First-aid measures

| | |
|-----------------------|---|
| General Advice | If symptoms persist, call a physician. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur. |
| Inhalation | Remove to fresh air. If breathing is difficult, give oxygen. 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. Get medical attention. |
| Ingestion | Do NOT induce vomiting. Call a physician or poison control center immediately. |

| | |
|--|---------------------------|
| Most important symptoms and effects | No information available. |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|---|--------------------------|
| Suitable Extinguishing Media | Water spray. |
| Unsuitable Extinguishing Media | No information available |
| Flash Point | No information available |
| Method - | No information available |
| Autoignition Temperature | |
| Explosion Limits | |
| Upper | No data available |
| Lower | No data available |
| Oxidizing Properties | Oxidizer |
| Sensitivity to Mechanical Impact | No information available |
| Sensitivity to Static Discharge | No information available |

Specific Hazards Arising from the Chemical

Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood, paper, oil, clothing, etc.). Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Nitrogen oxides (NO_x).

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.

NFPA

| | | | |
|--------|--------------|-------------|------------------|
| Health | Flammability | Instability | Physical hazards |
| 2 | 1 | 2 | OX |

6. Accidental release measures

| | |
|---|--|
| Personal Precautions | Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing. |
| Environmental Precautions | Avoid release to the environment. |
| Methods for Containment and Clean Up | Keep combustibles (wood, paper, oil, etc) away from spilled material. Sweep up and shovel into suitable containers for disposal. Avoid dust formation. |

7. Handling and storage

| | |
|-----------------|---|
| Handling | Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Do not breathe (dust, vapor, mist, gas). Do not ingest. If swallowed then seek immediate medical assistance. Keep away from clothing and other combustible materials. |
| Storage | Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. |

8. Exposure controls / personal protection

| | |
|----------------------------|---|
| Exposure Guidelines | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|----------------------------|---|

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

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

9. Physical and chemical properties

| | |
|---|--------------------------|
| Physical State | Powder Solid |
| Appearance | White |
| Odor | Odorless |
| Odor Threshold | No information available |
| pH | 5.0-8.0 aq.sol. (20°C) |
| Melting Point/Range | 414 °C / 777.2 °F |
| Boiling Point/Range | No information available |
| Flash Point | No information available |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Specific Gravity | 3.680 |
| Solubility | No information available |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | |
| Decomposition Temperature | No information available |
| Viscosity | Not applicable |
| Molecular Formula | Cs N O3 |
| Molecular Weight | 194.91 |

10. Stability and reactivity

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|---|--|
| Reactive Hazard | Yes |
| Stability | Oxidizer: Contact with combustible/organic material may cause fire. |
| Conditions to Avoid | Incompatible products. Excess heat. Avoid dust formation. Combustible material. |
| Incompatible Materials | Organic materials, Alcohols, Strong reducing agents, Metals, Combustible material, Acids, Cyanides |
| Hazardous Decomposition Products | Nitrogen oxides (NOx) |
| Hazardous Polymerization | Hazardous polymerization does not occur. |

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------|------------------|-------------------|-----------------|
| Cesium nitrate | >300 mg/kg (Rat) | >2000 mg/kg (Rat) | Not listed |

Toxicologically Synergistic Products No information available

Products

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

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|----------------|-----------|------------|------------|------------|------------|------------|
| Cesium nitrate | 7789-18-6 | Not listed |

IARC (International Agency for Research on Cancer)

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Mutagenic Effects Not mutagenic in AMES Test

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and

national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN1451
 Proper Shipping Name CESIUM NITRATE
 Hazard Class 5.1
 Packing Group III

TDG

UN-No UN1451
 Proper Shipping Name CESIUM NITRATE
 Hazard Class 5.1
 Packing Group III

IATA

UN-No UN1451
 Proper Shipping Name CAESIUM NITRATE
 Hazard Class 5.1
 Packing Group III

IMDG/IMO

UN-No UN1451
 Proper Shipping Name CAESIUM NITRATE
 Hazard Class 5.1
 Packing Group III

15. Regulatory Information

United States of America Inventory

| Component | CAS-No | TSCA | TSCA Inventory notification - Active/Inactive | TSCA - EPA Regulatory Flags |
|----------------|-----------|------|---|-----------------------------|
| Cesium nitrate | 7789-18-6 | X | ACTIVE | - |

Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

| Component | CAS-No | DSL | NDL | EINECS | PICCS | ENCS | AICS | IECSC | KECL |
|----------------|-----------|-----|-----|-----------|-------|------|------|-------|----------|
| Cesium nitrate | 7789-18-6 | X | - | 232-146-8 | X | X | X | X | KE-05444 |

U.S. Federal Regulations

SARA 313

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|----------------|-----------|----------|-------------------------------|
| Cesium nitrate | 7789-18-6 | >95 | 1.0 |

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Not applicable

Health Administration

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|----------------|---------------|------------|--------------|----------|--------------|
| Cesium nitrate | - | X | - | X | - |

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

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|------------------------------|
| 16. Other Information |
|------------------------------|

Prepared By Health, Safety and Environmental Department
 Email: tech@alfa.com
 www.alfa.com

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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 SDS

