

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 1 of 11

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Cesium nitrate v.p.

Substance name: Caesium nitrate  
CAS No: 7789-18-6

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet****Details of the supplier of the safety data sheet**

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: N-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Belgium NV  
Street: Industriezone "De Arend" 2  
Place: B-8210 Zedelgem  
Telephone: +32 50 28 83 20  
E-mail: info.be@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Responsible Department: AnalytiChem:  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333  
+44 20 3807 3798 (CHEMTREC)

**1.4. Emergency telephone number:**

Revision: 21.05.2025

**Cesium nitrate v.p.**

Product code: AC14.00444

Page 2 of 11

**Further Information**

No data available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Ox. Sol. 1; H271

Repr. 2; H361f

Acute Tox. 4; H302

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Signal word:**

Danger

**Pictograms:****Hazard statements**

H271

May cause fire or explosion; strong oxidiser.

H302

Harmful if swallowed.

H361f

Suspected of damaging fertility.

**Precautionary statements**

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P210

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

P220

Keep away from clothing and other combustible materials.

P264

Wash hands and face thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P280

Wear protective gloves/protective clothing and eye protection/face protection.

P283

Wear fire resistant or flame retardant clothing.

P301+P312

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330

Rinse mouth.

P306+P360

IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

P308+P313

IF exposed or concerned: Get medical advice/attention.

P371+P380+P375

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

P405

Store locked up.

P420

Store separately.

P501

Dispose of contents/container to an appropriate recycling or disposal facility.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Sum formula:

CsNO3

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 3 of 11

Molecular weight: 194,91 g/mol

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7789-18-6	Caesium nitrate			100 %
	Ox. Sol. 1, Repr. 2, Acute Tox. 4; H271 H361f H302			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
7789-18-6		Caesium nitrate	100 %
		oral: ATE = 500 mg/kg	

**Further Information**

No data available

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection!

**After inhalation**

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

Call a physician immediately.

**After contact with skin**

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

**After contact with eyes**

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

**After ingestion**

Rinse mouth.

Do NOT induce vomiting. Aspiration hazard

Call a physician immediately.

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

acute: Dizziness, Gastrointestinal complaints

long-term: Depression of central nervous system Headache

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

No data available

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 4 of 11

**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

no restriction

**5.2. Special hazards arising from the substance or mixture**

Non-combustible solids

oxidising

The material itself does not burn, but reacts so violently with flammable substances that it can ignite them partly without any additional ignition source and can significantly promote an existing fire.

Hazardous combustion products

In case of fire may be liberated:

Nitrogen oxides (NO<sub>x</sub>)

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

Heating causes rise in pressure with risk of bursting.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Vapours can form explosive mixtures with air.

**For non-emergency personnel**

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

To follow: Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

Explosion risk.

**6.3. Methods and material for containment and cleaning up****For containment**

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Take up dust-free and set down dust-free.

Collect in closed and suitable containers for disposal.

**For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

**Other information**

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Revision: 21.05.2025

**Cesium nitrate v.p.**

Product code: AC14.00444

Page 5 of 11

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Read label before use.

Handle and open container with care.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Do not breathe dust/fume/gas/mist/vapours/spray.

Provide adequate ventilation.

Use extractor hood (laboratory).

**Advice on protection against fire and explosion**

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

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Further information on handling**

Take off immediately all contaminated clothing and wash it before reuse.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

Protect against: Radiant heat.

Do not store together with: Combustible substance

**Hints on joint storage**

National regulations

**Further information on storage conditions**

Store in a dry place.

Store in a well-ventilated place.

**7.3. Specific end use(s)**

The product is intended for research, analysis and scientific education.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Additional advice on limit values**

Observe in addition any national regulations!

**8.2. Exposure controls****Appropriate engineering controls**

Provide adequate ventilation as well as local exhaustion at critical locations.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 6 of 11

**Individual protection measures, such as personal protective equipment****Eye/face protection**

goggles

Face protection umbrella

**Hand protection**

Tested protective gloves must be worn

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Take off immediately all contaminated clothing and wash it before reuse.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Thermal hazards**

No data available

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	white
Odour:	odourless
Odour threshold:	No data available

**Test method**

Melting point/freezing point:	414 °C	
Boiling point or initial boiling point and boiling range:	No data available	
Flammability:	No data available	
Lower explosion limits:	No data available	
Upper explosion limits:	No data available	
Flash point:	No data available	
Auto-ignition temperature:	400 °C	
Decomposition temperature:	584 °C	
pH-Value (at 20 °C):	5,0 - 7,5 (50 g/l)	
Viscosity / kinematic:	No data available	
Water solubility: (at 20 °C)	239,5 g/l	OECD 105
Solubility in other solvents		
No data available		
Dissolution rate:	No data available	
Partition coefficient n-octanol/water:	No data available	
Dispersion stability:	No data available	
Vapour pressure:	No data available	
Vapour pressure:	No data available	

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 7 of 11

Density (at 25 °C):	3,685 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

**9.2. Other information****Information with regard to physical hazard classes**

## Explosive properties

No data available

## Sustained combustibility:

No data available

## Self-ignition temperature

Solid:

No data available

Gas:

No data available

## Oxidizing properties

Oxidizing

May cause or intensify fire; oxidiser.

Oxidising agent, strong

Heating may cause an explosion.

**Other safety characteristics**

## Evaporation rate:

No data available

## Solvent separation test:

No data available

## Solvent content:

No data available

## Solid content:

No data available

## Sublimation point:

No data available

## Softening point:

No data available

## Pour point:

No data available

No data available:

## Viscosity / dynamic:

No data available

## Flow time:

No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

The material itself does not burn, but reacts so violently with flammable substances that it can ignite them partly without any additional ignition source and can significantly promote an existing fire.

**10.2. Chemical stability**

Protect against: Radiant heat.

**10.3. Possibility of hazardous reactions**

Organic materials, Combustible substance, Reducing agent, Alcohols, Ammonium compounds, Aluminium, Nitrogen oxides (NO<sub>x</sub>), Acids

**10.4. Conditions to avoid**

Radiant heat.

**10.5. Incompatible materials**

No data available

**10.6. Hazardous decomposition products**

In case of fire may be liberated:

SECTION 5: Firefighting measures

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 8 of 11

**Further information**

No data available

**SECTION 11: Toxicological information****11.1. Information on hazard classes****Acute toxicity**

Harmful if swallowed.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7789-18-6	Caesium nitrate				
	oral	ATE 500 mg/kg			

**Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of damaging fertility. (Caesium nitrate)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**11.2. Information on other hazards****Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**Other information**

No data available

**Further information**

No data available

**SECTION 12: Ecological information****12.1. Toxicity**

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 9 of 11

Based on available data, the classification criteria are not met.

**12.2. Persistence and degradability**

No data available

**12.3. Bioaccumulative potential**

No data available

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of UK REACH.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Discharge into the environment must be avoided.

**Further information**

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Send to a physico-chemical treatment facility under observation of official regulations.

Do not allow to enter into surface water or drains.

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b><u>14.1. UN number or ID number:</u></b>	UN 1451
<b><u>14.2. UN proper shipping name:</u></b>	CAESIUM NITRATE
<b><u>14.3. Transport hazard class(es):</u></b>	5.1
<b><u>14.4. Packing group:</u></b>	III
Hazard label:	5.1
Classification code:	O2
Limited quantity:	5 kg
Excepted quantity:	E1
Transport category:	3
Hazard No:	50
Tunnel restriction code:	E

**Inland waterways transport (ADN)**

<b><u>14.1. UN number or ID number:</u></b>	UN 1451
<b><u>14.2. UN proper shipping name:</u></b>	CAESIUM NITRATE
<b><u>14.3. Transport hazard class(es):</u></b>	5.1
<b><u>14.4. Packing group:</u></b>	III
Hazard label:	5.1
Classification code:	O2
Limited quantity:	5 kg
Excepted quantity:	E1

**Marine transport (IMDG)**

<b><u>14.1. UN number or ID number:</u></b>	UN 1451
---	---------

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 10 of 11

**14.2. UN proper shipping name:** CAESIUM NITRATE**14.3. Transport hazard class(es):** 5.1**14.4. Packing group:** III

Hazard label: 5.1

Special Provisions: -

Limited quantity: 5 kg

Excepted quantity: E1

EmS: F-A, S-Q

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number or ID number:** UN 1451**14.2. UN proper shipping name:** CAESIUM NITRATE**14.3. Transport hazard class(es):** 5.1**14.4. Packing group:** III

Hazard label: 5.1

Special Provisions: A803

Limited quantity Passenger: 10 kg

Passenger LQ: Y546

Excepted quantity: E1

IATA-packing instructions - Passenger: 559

IATA-max. quantity - Passenger: 25 kg

IATA-packing instructions - Cargo: 563

IATA-max. quantity - Cargo: 100 kg

**14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

**14.7. Maritime transport in bulk according to IMO instruments**

No dangerous good in sense of this transport regulation.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Information according to Directive 2012/18/EU (SEVESO III): P8 OXIDISING LIQUIDS AND SOLIDS

**Additional information**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

**National regulatory information****SECTION 16: Other information****Abbreviations and acronyms**

Ox. Sol. 1: Oxidising solids, hazard category 1

Acute Tox. 4: Acute toxicity, hazard category 4

Repr. 2: Reproductive toxicity, hazard category 2

**Relevant H and EUH statements (number and full text)**

H271 May cause fire or explosion; strong oxidiser.

H302 Harmful if swallowed.

H361f Suspected of damaging fertility.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product

**Cesium nitrate v.p.**

Revision: 21.05.2025

Product code: AC14.00444

Page 11 of 11

properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.