1 Identification

- Product identifier
- Trade name: Cesium nitrate
- Article number: 142460
- CAS Number: 7789-18-6
- EC number: 232-146-8
- Application of the substance / the mixture Laboratory chemicals for research and development
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  BeanTown Chemical
  9 Sagamore Park Road
  Hudson, NH 03051
  USA
  Phone: (603) 402-2234
  Fax: (603) 402-9713
  Email: technical@beantownchem.com
  www.beantownchem.com
- Information department: Technical Support Department
- Emergency telephone number:
  During normal operating hours, please call (603) 402-2234
  After hours, please call Chemtrec at (800) 424-9300

2 Hazard(s) identification

- Classification of the substance or mixture
  GHS03 Flame over circle
  Ox. Sol. 2  H272  May intensify fire; oxidizer.

- GHS07
  Skin Irrit. 2  H315  Causes skin irritation.
  Eye Irrit. 2A  H319  Causes serious eye irritation.
  STOT SE 3  H335  May cause respiratory irritation.

- Label elements
- GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms
  GHS03  GHS07

- Signal word Danger

- Hazard-determining components of labeling:
  Cesium nitrate

(Contd. on page 2)
Trade name: Cesium nitrate

- Hazard statements
  May intensify fire; oxidizer.
  Causes skin irritation.
  Causes serious eye irritation.
  May cause respiratory irritation.
- Precautionary statements
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Take any precaution to avoid mixing with combustibles.
  Keep away from heat.
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  Continue rinsing.
  Specific treatment (see on this label).
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.
- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  7789-18-6 Cesium nitrate
- Identification number(s)
- EC number: 232-146-8

4 First-aid measures

- Description of first aid measures
  - After inhalation: In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact:
    Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - After swallowing: If symptoms persist consult doctor.
  - Information for doctor:
  - Most important symptoms and effects, both acute and delayed No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed
    No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
Trade name: Cesium nitrate

· Advice for firefighters
  · Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures Not required.
· Environmental precautions: No special measures required.
· Methods and material for containment and cleaning up: Ensure adequate ventilation.
· Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

· Handling:
  · Precautions for safe handling No special precautions are necessary if used correctly.
  · Information about protection against explosions and fires: Protect from heat.
· Conditions for safe storage, including any incompatibilities
· Storage:
  · Requirements to be met by storerooms and receptacles: No special requirements.
  · Information about storage in one common storage facility: Not required.
· Further information about storage conditions:
  Keep receptacle tightly sealed.
  Protect from heat and direct sunlight.
· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems:
  Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute
· Control parameters
· Components with limit values that require monitoring at the workplace: Not required.
· Additional information: The lists that were valid during the creation were used as basis.
· Exposure controls
· Personal protective equipment:
  · General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
  · Breathing equipment:
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
  · Protection of hands:
    Protective gloves
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Trade name: Cesium nitrate

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Tightly sealed goggles

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - Form: Crystalline
    - Color: Not determined.
    - Odor: Characteristic
    - Odour threshold: Not determined.
  - **pH-value:** Not applicable.
  - **Change in condition**
    - Melting point/Melting range: 414 °C (777 °F)
    - Boiling point/Boiling range: Undetermined
  - **Flash point:** Not applicable.
  - **Flammability (solid, gaseous):** Contact with combustible material may cause fire.
  - **Ignition temperature:**
    - Decomposition temperature: Not determined.
  - **Auto igniting:** Not determined.
  - **Danger of explosion:** Not determined.
  - **Explosion limits:**
    - Lower: Not determined.
    - Upper: Not determined.
  - **Vapor pressure:** Not applicable.
  - **Density at 20 °C (68 °F):** 3.69 g/cm³ (30.793 lbs/gal)
  - **Bulk density at 20 °C (68 °F):** 1500 kg/m³
    - Relative density: Not determined.
    - Vapour density: Not applicable.
    - Evaporation rate: Not applicable.
  - **Solubility in / Miscibility with**
    - Water at 20 °C (68 °F): 150 g/l
  - **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - Dynamic: Not applicable.
  - Kinematic: Not applicable.
  - Organic solvents: 0.0 %

(Contd. on page 5)
Trade name: Cesium nitrate

<table>
<thead>
<tr>
<th>Solids content:</th>
<th>100.0 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

## 10 Stability and reactivity

- Reactivity
- Chemical stability
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
    - **7789-18-6 Cesium nitrate**
      - Oral LD50 2390 mg/kg (rat)
      - Dermal LD50 (guinea pig)

- **Primary irritant effect:**
  - **on the skin:** Irritant to skin and mucous membranes.
  - **on the eye:** Irritating effect.
  - **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**
  - **Carcinogenic categories**
    - **IARC (International Agency for Research on Cancer)**
      - Substance is not listed.
    - **NTP (National Toxicology Program)**
      - Substance is not listed.
    - **OSHA-Ca (Occupational Safety & Health Administration)**
      - Substance is not listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:** Not known to be hazardous to water.
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
Trade name: Cesium nitrate

13 Disposal considerations

- Waste treatment methods
- Recommendation:
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  DOT, IMDG, IATA: UN1451
- UN proper shipping name
  DOT: Cesium nitrate
  IMDG, IATA: CAESIUM NITRATE
- Transport hazard class(es)
  - DOT, IMDG, IATA
    - Class: 5.1 Oxidizing substances
    - Label: 5.1
  - Packing group
    - DOT, IMDG, IATA: III
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user
  Warning: Oxidizing substances
- Danger code (Kemier):
  - Code: 50
- EMS Number:
  - F-A.S-Q
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  Not applicable.
- Transport/Additional information:
  - DOT
    - Quantity limitations
      On passenger aircraft/rail: 25 kg
      On cargo aircraft only: 100 kg
  - IMDG
    - Limited quantities (LQ)
      - Code: E1
    - Exepected quantities (EQ)
      Maximum net quantity per inner packaging: 30 g
      Maximum net quantity per outer packaging: 1000 g
  - UN "Model Regulation":
    UN1451, Cesium nitrate, 5.1, III
## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- **Sara**
  - **Section 355 (extremely hazardous substances):**
    - Substance is not listed.
  - **Section 313 (Specific toxic chemical listings):**
    - Substance is listed.
- **TSCA (Toxic Substances Control Act):**
  - Substance is listed.
- **Proposition 65**
  - **Chemicals known to cause cancer:**
    - Substance is not listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    - Substance is not listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    - Substance is not listed.
  - **Chemicals known to cause developmental toxicity:**
    - Substance is not listed.
- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    - Substance is not listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    - Substance is not listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - Substance is not listed.
  - **RTECS**
    - Substance is not listed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **NFPA ratings (scale 0-4)**
  - Health = 1
  - Fire = 3
  - Reactivity = 0
  - The substance possesses oxidizing properties.
- **HMIS ratings (scale 0-4)**
  - Health = 1
  - Fire = 3
  - Reactivity = 0

- **Department issuing SDS:** Technical Support Department
- **Contact:** Technical Support Department
- **Date of preparation / last revision** 03/05/2015 / -
Trade name: Cesium nitrate

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  Ox. Sol. 2: Oxidising Solids, Hazard Category 2
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3