1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Cesium chloride
Cat No.: BP1595-1, BPP1595-500, BP210-1, BP210-100, BP210-500, C2425
Synonyms: Cesium Monochloride; Dicesium Dichloride
Recommended Use: Laboratory chemicals

Company: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

CAUTION!

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. HAZARDS IDENTIFICATION

CAUTION!

Emergency Overview
May cause skin, eye, and respiratory tract irritation. May be harmful if swallowed or inhaled.

Appearance: White
Physical State: Powder Solid
Odor: odorless

Target Organs: Kidney, Heart

Potential Health Effects

Acute Effects

Principle Routes of Exposure

- Eyes: May cause irritation
- Skin: May cause irritation.
- Inhalation: May cause irritation. May be harmful if inhaled.
- Ingestion: May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects: May cause adverse kidney effects.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions: No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz
### 4. FIRST AID MEASURES

**Eye Contact**  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact**  
Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.

**Inhalation**  
Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.

**Ingestion**  
Do not induce vomiting. Obtain medical attention.

**Notes to Physician**  
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Flash Point**  
No information available.

**Method**  
No information available.

**Autoignition Temperature**  
No information available.

**Explosion Limits**  

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesium chloride</td>
<td>7647-17-8</td>
<td>&gt;95</td>
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</table>

<table>
<thead>
<tr>
<th>Upper</th>
<th>Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Suitable Extinguishing Media**  
Water spray. Foam. Dry chemical.

**Unsuitable Extinguishing Media**  
No information available.

**Hazardous Combustion Products**  
No information available.

**Sensitivity to mechanical impact**  
No information available.

**Sensitivity to static discharge**  
No information available.

**Specific Hazards Arising from the Chemical**  
Non-combustible. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

**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**  

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions**  
Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

**Environmental Precautions**  
Should not be released into the environment

**Methods for Containment and Clean Up**  
Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

### 7. HANDLING AND STORAGE
7. HANDLING AND STORAGE

Handling
Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin and eyes.

Storage
Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Powder Solid</th>
</tr>
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<tbody>
<tr>
<td>Appearance</td>
<td>White</td>
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<tr>
<td>Odor</td>
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<tr>
<td>Odor Threshold</td>
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<td>pH</td>
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<td>Vapor Pressure</td>
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<td>Vapor Density</td>
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<td>Viscosity</td>
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<tr>
<td>Boiling Point/Range</td>
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<tr>
<td>Melting Point/Range</td>
<td>646°C / 1194.8°F</td>
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<tr>
<td>Decomposition temperature</td>
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<tr>
<td>Flash Point</td>
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<tr>
<td>Evaporation Rate</td>
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<td>Solubility</td>
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<tr>
<td>Molecular Formula</td>
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10. STABILITY AND REACTIVITY

Stability
Hygroscopic.

Conditions to Avoid
Incompatible products. Exposure to moist air or water.

Incompatible Materials
Strong acids, Acids, Strong oxidizing agents

Hazardous Decomposition Products
Hydrogen chloride gas

Hazardous Polymerization
Hazardous polymerization does not occur.

Hazardous Reactions
None under normal processing
11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

<table>
<thead>
<tr>
<th>Component</th>
<th>LD50 Oral (mg/kg)</th>
<th>LD50 Dermal</th>
<th>LC50 Inhalation</th>
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<tr>
<td>Cesium chloride</td>
<td>2004 (Rat)</td>
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<td>Not listed</td>
</tr>
</tbody>
</table>

Irritation

No information available.

Toxicologically Synergistic Products

No information available.

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in this product.

Sensitization

No information available.

Mutagenic Effects

No information available.

Reproductive Effects

No information available.

Developmental Effects

No information available.

Teratogenicity

No information available.

Other Adverse Effects

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Endocrine Disruptor Information

No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains

Persistence and Degradability

Not readily biodegradable.

Bioaccumulation/Accumulation

No information available

Mobility

No information available

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
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DOT  Not regulated
TDG  Not regulated
IATA  Not regulated
IMDG/IMO  Not regulated

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>PICCS</th>
<th>ENCS</th>
<th>AICS</th>
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<tr>
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<td>X</td>
<td>-</td>
<td>231-600-2</td>
<td>-</td>
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<td>X</td>
<td>X</td>
<td>X</td>
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</tr>
</tbody>
</table>

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)  Not applicable
SARA 313  Not applicable
SARA 311/312 Hazardous Categorization
- Acute Health Hazard  No
- Chronic Health Hazard  No
- Fire Hazard  No
- Sudden Release of Pressure Hazard  No
- Reactive Hazard  No

Clean Water Act  Not applicable
Clean Air Act  Not applicable
OSHA Occupational Safety and Health Administration  Not applicable
CERCLA
Not Applicable

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

State Right-to-Know
Not applicable

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

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
Non-controlled

16. OTHER INFORMATION

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date
23-Nov-2010

Print Date
09-Aug-2013

Revision Summary
(M)SDS sections updated, 2, 3.

Disclaimer
The information provided on 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warrant 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 material or in any process, unless specified in the text.

End of MSDS