



Chemistry for Safer, Sustainable Life

# SAFETY DATA SHEET

## Section 1: Identification

**Product Name:** Cesium formate monohydrate

**Product ID:** 100FO16

**Chemical Name/Synonyms:** Cesium methanoate monohydrate, Formic acid cesium salt monohydrate

**CAS:** 3495-36-1

**Molecular Formula:** CH<sub>3</sub>CsO<sub>3</sub>

**Molecular weight:** 195.94 g/mol

**Potential Uses:** Laboratory reagent, drilling mud additive, etc.

**Company:** BioFuran Materials LLC

920 William Pitt Way, Pittsburgh, PA 15238

**In emergency call 911 or for information about this SDS, use this contact phone#:** 412-376-7101

## Section 2: GHS Hazard(s) Identification

**Hazard Classification:** Eye irritation (Category 2A), H319

Specific target organic toxicity – single exposure (Category 2), 371,373

Acute oral toxicity (Category 4), H302

**Signal Word(s):** Warning

**Hazard Statements:** H302 – Harmful if swallowed

H319 – Causes serious eye irritation

H371+H373 – May cause damage to organs if ingested

**Pictograms:**



**Precautionary Statements:**

P260 – Do not breathe dust, fumes, vapors, or mist

P264 – Wash hands thoroughly after handling

P280 – Wear eye protection / face protection

P301+P312+P330 – If swallowed, call poison control center and get medical advice / attention

P305+P351+P338 – If in eyes, rinse thoroughly with water for several minutes.

Remove contact lenses if present. Continue rinsing for several minutes.

P337+P313 – If eye irritation persists, get medical advice/attention

P321 – See first aid instructions on this SDS

P362+P364 – Take off contaminated clothing and wash them before reuse.

**Description of other hazards:** none available

### Section 3: Composition/ Information on Ingredients

| Chemical Name              | Synonym                       | CAS#      | Conc. |
|----------------------------|-------------------------------|-----------|-------|
| Cesium formate monohydrate | Cesium methanoate monohydrate | 3495-36-1 | 100%  |

### Section 4: First-Aid Measures

**After skin contact:** Wash off with soap and plenty of water. Consult a physician.

**After eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**After inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**After swallowing:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### Section 5: Fire-Fighting Measures

**Suitable extinguishing agents:** Use water spray, dry chemical or carbon dioxide.

**Special protective equipment for firefighters:** 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

**Personal precautions:** Wear protective equipment as described in Section 8.

**Measures for environmental protection:** Do not dispose product in municipal sewers or drains. Notify authorities if product enters sewers or public waters.

**Measures for cleaning/collecting:** Pick up and arrange disposal without creating dust. Sweep up and shovel any spillages. Keep all wastes and residues in suitable, closed containers for disposal.

### Section 7: Handling and Storage

**Handling:** Avoid contact with skin and eyes. Avoid dust formation and do not breathe dust. Provide local exhaust or general room ventilation to minimize exposure to dust.

**Storage:** Keep container tightly closed.

### Section 8: Exposure Controls/Personal Protection

| Component | CAS No. | Value | Control Parameters |
|-----------|---------|-------|--------------------|
|-----------|---------|-------|--------------------|

|                            |           |                                |                   |
|----------------------------|-----------|--------------------------------|-------------------|
| Cesium formate monohydrate | 3495-36-1 | ACGIH TWA (mg/m <sup>3</sup> ) | No data available |
|----------------------------|-----------|--------------------------------|-------------------|

**General protective and hygienic measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

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

**Protection of hands:** Neoprene or nitrile rubber gloves.

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

### Section 9: Physical and Chemical Properties

**Form:** Crystalline powder

**Appearance:** White

**Odor:** Odorless

**Odor threshold:** No data available

**pH:** No data available

**Melting point/melting range:** 45-50°C, decomposes at 268-272°C

**Boiling point/boiling range:** No data available

**Flash point:** No data available

**Evaporation rate:** No data available

**Flammability:** No data available

**Upper/lower flammability or explosive limits:** No data available

**Auto ignition temperature:** No data available

**Danger of explosion:** No data available

**Vapor pressure:** No data available

**Vapor density:** No data available

**Relative density:** No data available

**Solubility in/Miscibility with water:** 92g/100mL water at 20°C

### Section 10: Stability and Reactivity

**Reactivity:** No data available

**Chemical stability:** Stable under ambient conditions but hygroscopic material. Keep in closed container.

**Conditions to avoid:** Avoid exposure to moisture or water.

**Incompatible materials:** Strong oxidizing agents, strong acids, halogens

**Hazardous decomposition products:** cesium oxides, oxides of carbon

### Section 11: Toxicological Information

**Acute toxicity:** No data available

**Potential routes of exposure/potential health effects**

**Skin:** Causes skin irritation

**Eye:** Causes eye irritation

**Inhalation:** May cause irritation

**Ingestion:** No data available

**Carcinogenic effects:** No data available

**Mutagenic effects:** No data available

**Reproductive toxicity:** No data available

**Sensitization:** No data available

**Target organs:** No data available

### Section 12: Ecological Information (non-mandatory)

**Ecotoxicity:** No data available, do not empty into drains

**Mobility:** likely mobile due to high water solubility

**Biodegradation:** No data available

**Bioaccumulation:** No data available

### Section 13: Disposal Considerations (non-mandatory)

This material or its residues should not be disposed in drains or in regular trash cans. Contact a licensed waste disposal professional to dispose this material or its residues.

### Section 14: Transport Information (non-mandatory)

**DOT regulations:** Not dangerous goods

- **Land transport ADR/RID (cross-border):** Not regulated for transport
- **Maritime transport IMDG:** Not dangerous goods
- **Air transport ICAO-TI and IATA-DGR:** Not dangerous goods

### Section 15: Regulatory Information (non-mandatory)

**US Federal Regulations**

**SARA Section 302:** This material is not subject to reporting requirements of SARA Title III, Section 302

**SARA Section 313:** This material is subject to reporting levels established by SARA Title III, Section 313

**TSCA (Toxic Substances Control Act):** Cesium formate monohydrate is listed on the United States TSCA

### Section 16: Other Information

**SDS date of preparation/update:** 06/15/2020 Version 001