Safety Data Sheet

Section 1: Chemical Identification

**Chemical Name:** Cefmetazole Sodium  
**Alternative Name:** Cefmetazole, Cefmetazole Sodium Salt, Cefmetazon, Zefazone, CMZ sodium, CS 1170 sodium  
**Catalog Number:** C-631-1; C-631-5  
**Recommended use:** Cefmetazole is a broad spectrum second generation cephalosporin antibiotic targeting a wide range of gram positive and gram negative bacteria. This product is not for use in humans. It is intended for research purposes only.

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Section 2: Hazardous Information

**GHS Classification**
- Acute toxicity, Oral (Category 5)  
- Skin irritation (Category 2)  
- Eye irritation (Category 2A)  
- Respiratory sensitization (Category 1)  
- Skin sensitization (Category 1)  
- Specific target organ toxicity – single exposure (Category 3)

**GHS Label Elements, including Precautionary statements**

DANGER!

**Hazard Statements:**
- **H303:** May be harmful if swallowed  
- **H315:** Causes skin irritation  
- **H317:** May cause an allergic skin reaction  
- **H319:** Causes serious eye irritation
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H335: May cause respiratory irritation

Precautionary Statements:  
P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray  
P280: Wear protective gloves  
P305+351+338: If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
P342+31: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

OSHA Hazards  
Irritant

Potential Health Effects  
Eye: Causes eye irritation.  
Skin: May be harmful if absorbed through skin. Causes skin irritation.  
Ingestion: May be harmful if swallowed.  
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

HMIS Classification  
Health hazard: 2  
Chronic health hazard: *  
Flammability: 0  
Physical hazards: 0

NFPA Rating  
Health Hazard: 2  
Fire: 0  
Reactivity Hazard: 0

Section 3: Composition/Information on Ingredients

Identity: Cefmetazole Sodium  
Synonyms: Cefmetazole, Cefmetazole Sodium Salt, Cefmetazon, Zefazone, CMZ sodium, CS 1170 sodium  
CAS number: 56796-39-5  
Molecular Formula: C15H16N7O5S3Na  
Molecular Weight: 493.52 g/mol

Section 4: First Aid Measures  
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
Skin: Wash off with soap and plenty of water. Consult a physician.  
Eye: Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.  
Ingestion: Wash out mouth with water. Drink plenty of water. Consult a physician.

Section 5: Fire Fighting Measures  
Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards arising from the chemical: During a fire, highly toxic gases may be generated by thermal decomposition or combustion – Carbon oxides, Nitrogen oxides, Sulfur oxides, Sodium oxides.

Special protective actions for fire-fighters: Wear self-contained breathing apparatus if necessary.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Evacuate area. Wear Self-contained breathing apparatus, rubber boots and heavy rubber gloves. Ventilate area and wash spill site after material pickup is complete.

Environmental precautions: Do not let product enter drain.

Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Precautions for safe handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2-8 °C. Handle and store under inert gas.

Section 8: Exposure Controls / Personal Protection

Control parameters: Contains no substances with occupational exposure limit values.

Appropriate engineering controls: Use only in a chemical fume hood. Safety shower and eye bath.

Personal Protective Equipment (PPE)

Eye/Face Protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Other Protective Clothing or Equipment: Wear appropriate protective clothing to prevent exposure.
Section 9: Physical and Chemical Properties

Appearance: Powder
Odour: Not available
Odour Threshold: Not available
pH: Not available
Melting Point: Not available
Freezing Point: Not available
Boiling Point/Range: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammability: Not available
Lower Explosion Limit: Not available
Upper Explosion Limit: Not available
Vapour Pressure: Not available
Vapour Density: Not available
Relative Density: Not available
Solubility: 92 mg/mL

Section 10: Stability and Reactivity Data

Reactivity: Not available.

Chemical stability: Stable under normal temperatures and pressures.

Possibility of hazardous reactions: Not available.

Conditions to avoid: Incompatible materials.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides, Sulphur oxides, Sodium oxides.

Section 11: Toxicological Information

Acute toxicity:
Oral: LD₅₀ (Rat) = 3,204 mg/kg

Skin corrosion/irritation:
Not available.

Respiratory or skin sensitization:
Irritating to skin. Moderate eye irritation.

Chronic effects:
Not available.

Germ cell mutagenicity:
Not available.

Carcinogenicity: IARC:
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human
carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:**
Not available.

**STOT-single exposure:**
Inhalation – May cause respiratory irritation

**STOT-repeated exposure:**
Not available.

**Aspiration hazard:**
Not available.

**Likely routes of exposure:**
Respiratory organs, mouth, skin, and eyes.

**Symptoms of exposure:**
Because of the similarity in structure of the penicillins and cephalosporins, those who are allergic to one class of agents may manifest cross-allergenicity when a member of the other class is encountered. Nausea, Vomiting. May occur in combination with exposure to alcohol. Associated coagulopathies include: hypoprothrombinemia, platelet abnormalities, immune-mediated thrombocytopenia. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Section 12: Ecological Information**

**Toxicity:**
Not available.

**Persistence and degradability:**
Not available.

**Mobility in soil:**
Not available.

**Other adverse effects:**
Not available.

**Section 13: Disposal Considerations**
Only professional staff trained in such techniques must undertake waste disposal. Observe all appropriate federal, provincial or state and local regulations. The material for disposal should be mixed with, or dissolved in, a combustible solvent and burnt in a chemical incinerator equipped with an afterburner and scrubber.

**Section 14: Transport Information**

**US Department of Transportation (DOT)**
Not dangerous goods.

**International Maritime Dangerous Goods (IMDG)**
Not dangerous goods.

**International Air Transport Association (IATA)**
Not dangerous goods.

### Section 15: Regulatory Information

**OSHA Hazards**
Irritant

**SARA 302 Components:**
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:**
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:**
Acute Health Hazard

**Massachusetts Right To Know Components:**
No Components Listed

**Pennsylvania Right To Know Components:**
CAS-No.
Cefmetazole sodium salt 56796-39-5

**New Jersey Right To Know Components:**
CAS-No.
Cefmetazole sodium salt 56796-39-5

**California Prop. 65 Components:**
California Proposition 65: This product does not contain chemical(s) known to the state of California to cause developmental toxicity.

### Section 16: Other Information

While Gold Biotechnology, Inc. believes the information contained herein to be true and accurate, it has relied on information provided by others. Gold Biotechnology, INC. makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or with respect to the results to be obtained from the use of the product. Gold Biotechnology, Inc. disclaims all liability with respect to the use of this product, including without limitation, liability for injury to the user or third-party persons.

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