

# **Safety Data Sheet**

Revision Date: 9/8/2017

## **Section 1: Chemical Identification**

### 1.1 Chemical Identification

**Product Name:** Ticarcillin disodium salt **Alternative Name:** Ticarpen; Aerugipen

Catalog Number: T-380

## 1.2 Relevant Uses and Uses Advised Against

**Recommended use:** This product is not for use in humans. It is for research purposes

only.

#### 1.3 Supplier Contact Information

**Distributed by:** Gold Biotechnology, Inc.

1328 Ashby Rd.

St. Louis, MO 63132

**Phone:** (314) 890-8778 **Fax:** (314) 890-0503

Email: contactgoldbio86@goldbio.com

## **1.4 Emergency Contact Information**

**Emergency Phone:** (800)248-7609 (Monday-Friday, 9:00 a.m. – 5:00 p.m. CST)

## Section 2: Hazardous Information

## 2.1 GHS Classification

Skin Irritation (Category 2)

Eye Irritation (Category 2A)

Respiratory Sensitizer (Category 1)

Specific Target Organ Toxicity, Single Exposure (Category 3)

### 2.2 GHS Label Elements, Including Precautionary statements





#### DANGER!

#### 2.3 Hazard Statements

H315: Causes skin irritation

H319: Causes serious eye irritation

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335: May cause respiratory irritation

## **2.4 Precautionary Statements**

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SDS Date: 9/8/2017 Page **2** of 8

P261: Avoid breathing dust/fume/gas/mist/vapours/spray

P264: Wash skin thoroughly after handling

P271: Use only outdoors or in a well-ventilated area

P280: Wear protective gloves/protective clothing/eye protection/face protection

P285: In case of inadequate ventilation wear respiratory protection

P302+352: IF ON SKIN: Wash with soap and water

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses if present and easy to do – continue rinsing P321: Specific treatment (see First Aid Measures on this label)

P332+313: If skin irritation occurs: Get medical advice/attention P337+313: If eve irritation persists get medical advice/attention

P337+313: If eye irritation persists get medical advice/attention
P342+311: If experiencing respiratory symptoms: Call a POISON CENTER or

doctor/physician

P362: Take off contaminated clothing and wash before reuse

P403+233: Store in a well ventilated place. Keep container tightly closed

P405: Store locked up

P501: Dispose of contents/container to an approved waste disposal plant

#### 2.8 HMIS Classification

Health Hazard: 2
Chronic Health Hazard: \*
Flammability: 0
Physical Hazards: 0

## 2.9 NFPA Rating

Health Hazard: 2
Fire: 0
Reactivity Hazard: 0

## **Section 3: Composition/Information on Ingredients**

## 3.1 Composition

**Identity:** Ticarcillin disodium salt

**IUPAC:** disodium;(2S,5R,6R)-6-[[(2R)-2-carboxylato-2-thiophen-3-ylacetyl]amino]

-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate

**Synonyms:** Ticarpen; Aerugipen

**CAS Number:** 4697-14-7

Molecular Formula:  $C_{15}H_{14}N_2Na_2O_6S_2$ Molecular Weight: 428.39 g/mol

## **Section 4: First Aid Measures**

### **4.1 Detailed First Aid Measures**

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give

artificial respiration. Consult a physician.

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**Skin:** Immediately wash skin copiously with soap and water. Take victim

immediately to hospital. 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

SDS Date: 9/8/2017

Page 3 of 8

physician.

**Ingestion:** Wash out mouth with water. Drink plenty of water. Consult a

physician. Never give anything by mouth to an unconscious person.

**Notes to Physician:** Treat symptomatically and supportively.

### 4.2 Most Important Symptoms And Effects, Either Acute Or Delayed

The most important known symptoms and effects are described in the labeling (see section2). And /or in section 11.

## 4.3 Indication of immediate medical attention and special treatment needed

Not available

## **Section 5: Fire Fighting Measures**

#### **5.1 Conditions of flammability:**

Not flammable or combustible.

### 5.2 Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### 5.3 Specific hazards arising from the chemical

During a fire, highly toxic gases may be generated by thermal decomposition or combustion – Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides, Sodium oxides.

#### 5.4 Specific protective actions for fire-fighters:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental Release Measures

## **6.1 Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

#### **6.2 Environmental precautions:**

Do not let product enter drains.

#### 6.3 Methods and materials for containment and cleaning up:

Soak up with absorbent material, discard.

## **Section 7: Handling and Storage**

#### **7.1 Precautions for safe handling:**

Always wear personal protective equipment (PPE, see section 8).

### 7.2 Conditions for safe storage, including and incompatibilities:

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Keep container tightly closed.

Store at 4°C.

## **Section 8: Exposure Controls / Personal Protection**

#### **8.1 Control Parameters:**

Contains no substances with occupational exposure limit values.

#### **8.2: Appropriate engineering controls:**

Contains no substances with occupational exposure limit values.

## **8.3 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).

SDS Date: 9/8/2017

Page 4 of 8

**Skin Protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique - without touching outer surface of glove - 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. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory Protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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**

#### 9.1 General chemical and physical properties

Appearance: white powder
Odor: Not Available
Odor Threshold: Not Available
pH: Not Available
Melting Point: Not Available
Freezing Point: Not Available
Boiling Point/Range: Not Available

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SDS Date: 9/8/2017 Page **5** of 8

Flash Point: Not Available
Evaporation Rate: Not Available
Lower Explosion Limit: Not Available
Upper Explosion Limit: Not Available
Vapor Pressure: Not Available
Vapor Density: Not Available
Relative Density: Not Available
Solubility: Not Available

**Partition Coefficient** 

**n-octanol/water:** Not Available

**Auto-Ignition** 

Temperature: Not Available

Decomposition

Temperature: Not Available Viscosity: Not Available

## **Section 10: Stability and Reactivity Data**

## 10.1 Reactivity:

Not available

### **10.2 Chemical Stability:**

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions:

Not available.

#### 10.4 Conditions to avoid:

Incompatible materials.

#### **10.5** Incompatible materials:

Strong oxidizing agents.

#### **10.6** Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions. - Unknown.

## **Section 11: Toxicological Information**

#### **11.1 Toxicological effects**

Acute toxicity:

Ticarcillin disodium salt Oral: Rat  $LD_{50} = 16,000 \text{ mg/kg}$ 

Behavioral:Somnolence (general depressed activity).

### Skin corrosion/irritation:

Not available.

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SDS Date: 9/8/2017 Page **6** of 8

#### Respitory or skin sensitization:

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 probable, possible or confirmed human

carcinogen by ACGIH.

NTP: 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 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:

Developmental Toxicity - Rat - Intravenous. Specific Developmental Abnormalities: Musculoskeletal system.

Developmental Toxicity - Rat - Subcutaneous. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

### 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:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## **Section 12: Ecological Information**

#### 12.1 Toxicity:

Not available.

#### 12.2 Persistence and degradability:

Inherent biodegradability.

#### **12.3** Bioacumulative potential:

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SDS Date: 9/8/2017 Page **7** of 8

Does not bioaccumulate.

### **12.4 Mobility in soil:**

Not available.

#### 12.5 Other adverse effects:

None.

## **Section 13 Disposal Considerations**

Dispose of product in accordance with local rules and regulations.

## **Section 14: Transport Information**

### 14.1 US Department of Transportation (DOT)

This material is considered to be non-hazardous for transport.

## 14.2 International Maritime Dangerous Goods (IMDG):

This material is considered to be non-hazardous for transport.

## 14.2 International Air Transportation Association (IATA)

This material is considered to be non-hazardous for transport.

## **Section 15: Regulatory Information**

#### **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:

No SARA Hazards.

Massachusetts Right To Know Components:	CAS - No.
Ticarcillin disodium salt	4697-14-7
Pennsylvania Right To Know Components:	CAS - No.
Ticarcillin disodium salt	4697-14-7
New Jersey Right To Know Components:	CAS - No.
Ticarcillin disodium salt	4697-14-7

#### California Prop. 65 Components:

This product does not contain any chemical known to the State of California to cause cancer, birth, or any other reproductive defects.

## **Section 16: Other Information**

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#### **Preparation Information**

Gold Biotechnology Content/Marketing Department (800) 248-7609 Last updated: 9/8/2017