

## 1. PRODUCT AND COMPANY INFORMATION

**Distributed By:** WG Critical Care, LLC.  
120 Route 17 North  
Suite 115  
Paramus, NJ 07652 USA

**Product Name:** **Piperacillin and Tazobactam for Injection**

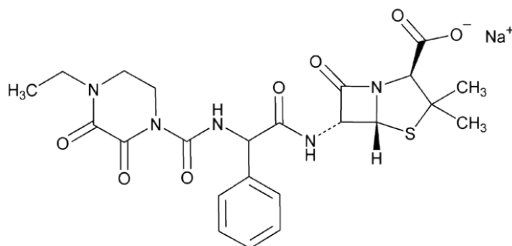
**Product Code:**

2.25g Vial:	44567-801-10
3.375g Vial:	44567-802-10
3.375g Vial:	44567-882-10
4.5g Vial:	44567-803-10
40.5g Vial:	44567-804-01

**Common / Trade Name:** Piperacillin and Tazobactam for Injection

**Structure:**

### Piperacillin Sodium



### Piperacillin Sodium

**Chemical Name:**

(1) 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 6-[[[(4-ethyl-2,3-dioxo-1-piperazinyl)carbonyl]amino]phenylacetamido]-3,3-dimethyl-7-oxo-, monosodium salt, [2S-[2a,5a,6b(S\*)]];

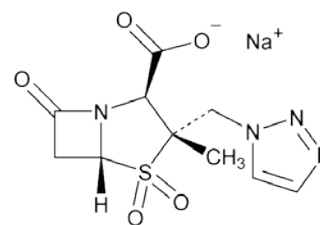
(2) Sodium (2S,5R,6R)-6-[(R)-2-(4-ethyl-2,3-dioxo-1-piperazinecarboxamido)-2-phenylacetamido]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate

**Molecular**

### Piperacillin Sodium

**Formula:** C<sub>23</sub>H<sub>26</sub>N<sub>5</sub>NaO<sub>7</sub> MW: 539.54

### Tazobactam Sodium



### Tazobactam Sodium

(1) 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, 3-methyl-7-oxo-3-(1H-1,2,3-triazol-1-ylmethyl)-, 4,4-dioxide, sodium salt, [2S-(2α,3β,5α)]-;

(2) Sodium (2S,3S,5R)-3-methyl-7-oxo-3-(1H-1,2,3-triazol-1-ylmethyl)-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate, 4,4-dioxide

### Tazobactam Sodium

C<sub>10</sub>H<sub>11</sub>N<sub>4</sub>NaO<sub>5</sub>S MW: 322.27

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### 1. PRODUCT AND COMPANY INFORMATION (CONT.)

<b>UNII Code:</b>	<b><u>Piperacillin Sodium</u></b> <i>UNII-M98T69Q7HP</i>	<b><u>Tazobactam Sodium</u></b> <i>UNII-UXA545ABTT</i>
<b>CAS Number:</b>	<b><u>Piperacillin Sodium</u></b> <i>59703-84-3</i>	<b><u>Tazobactam Sodium</u></b> <i>89785-84-2</i>
<b>Chemical Family:</b>	<b><u>Piperacillin Sodium</u></b> <i>Antibacterial</i>	<b><u>Tazobactam Sodium</u></b> <i>Inhibitor (<math>\beta</math>-lactamase)</i>
<b>Product Use:</b>	Pharmaceutical	
<b>Product Type:</b>	Prescription Drug	
<b>Container Information:</b>	Vials	
<b>General Phone Number:</b>	+1-847-549-3200	
<b>Customer Service Phone Number:</b>	+1-888-493-0861	
<b>Emergency Phone Number:</b>	+1-866-562-4708 (Prosar)	

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

<b><u>Ingredient</u></b>	<b><u>Weight %</u></b>	<b><u>CAS No.</u></b>
Piperacillin Sodium, USP	80-88%	59703-84-3
Tazobactam Sodium	12-20%	89785-84-2
Sodium Bicarbonate, USP	2.5-5%	144-55-8

### 3. HAZARDS IDENTIFICATION

<b>PRIMARY PHYSICAL AND HEALTH HAZARDS:</b>	May cause respiratory tract, eye, and skin irritation. May cause allergic respiratory and skin reaction
<b>ROUTES OF ENTRY:</b>	Inhalation, injection, eye/skin contact and/or ingestion

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### 3. HAZARDS IDENTIFICATION (CONT.)

**SIGNS & SYMPTOMS OF EXPOSURE:**

May cause sensitization by inhalation and skin contact. Irritating to eyes, respiratory system, and skin. May cause allergic reaction in penicillin-sensitive individuals.

Hypersensitivity (anaphylactic/anaphylactoid) reactions (including shock) have been reported in patients receiving therapy with penicillins. Individuals with a history of penicillin hypersensitivity or a history of sensitivity to multiple allergens should avoid contact. The most common effects may include diarrhea, headache, constipation, nausea, insomnia, rash, vomiting, dyspepsia, pruritus, stool changes, fever, agitation, pain, moniliasis, hypertension, dizziness, abdominal pain, chest pain, edema, anxiety, rhinitis, and dyspnea.

**CHEMICAL LISTED AS CARCINOGEN:**

**NTP:** NO

**IARC:** NO

**OSHA:** NO

### 4. FIRST AID MEASURES

**EYE EXPOSURE:**

Immediately rinse eyes with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Seek medical advice.

**SKIN EXPOSURE:**

Remove contaminated clothing immediately. Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention if skin reaction occurs.

**INGESTION:**

Never attempt to induce vomiting. Flush mouth out with water immediately. Seek medical attention.

**INHALATION:**

Use appropriate personal protective equipment. Move to fresh air and monitor breathing. If breathing becomes difficult, maintain ventilation, give oxygen as appropriate, and seek medical attention.

**NOTE TO PHYSICIAN:**

See patient package insert in shipping carton for complete information.

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#### 5. FIRE FIGHTING MEASURES

<b>FLASH POINT:</b>	Not Established
<b>AUTO-IGNITION TEMPERATURE:</b>	Not Established
<b>FLAMMABLE LIMITS IN AIR:</b>	Lower %: Not Established Upper %: Not Established
<b>FLAMMABLE LIMITS:</b>	Not Established
<b>EXTINGUISHING MEDIA:</b>	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment
<b>UNUSUAL FIRE / EXPLOSION HAZARDS:</b>	Thermal decomposition products may include smoke and toxic fumes. Oxides of carbon, oxides of nitrogen, and other organic substances may be formed. Other undetermined low molecular weight hydrocarbon compounds may be released in small quantities depending upon specific conditions of combustion.

#### 6. ACCIDENTAL RELEASE MEASURE

<b>SPILL:</b>	Contain and collect spillage and place in container for disposal according to local regulations (See Section 13). Wipe surface area clean with soap and water. Avoid contact with strong oxidizing agents.
<b>RELEASE TO AIR:</b>	Prevent release to drains and waterways. Prevent release to the environment.
<b>RELEASE TO WATER:</b>	Refer to local water authority. Drain disposal is not recommended; refer to local, state, and federal disposal guidelines.

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## 7. HANDLING AND STORAGE

<b>GENERAL HANDLING:</b>	When handling pharmaceutical products, avoid all contact and inhalation of dust, fumes, mist, and/or vapors associated with the product. Keep away from sources of ignition.
<b>STORAGE CONDITIONS:</b>	Store at controlled room temperature between 20° – 25°C in the original packaging.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>RESPIRATORY PROTECTION:</b>	If respiratory protection is used, the type of protection will depend upon air concentration present, required protection factor as well as hazards, physical properties of substance.
<b>EYE PROTECTION:</b>	Safety glasses with side shields or goggles are recommended.
<b>VENTILATION</b>	General room ventilation is usually satisfactory. Use local exhaust ventilation if necessary.
<b>SKIN PROTECTION:</b>	Protect with disposable garments if direct skin contact is anticipated.
<b>OTHER PROTECTIVE EQUIPMENT:</b>	Chemical resistant gloves.
<b>ADDITIONAL EXPOSURE PRECAUTIONS:</b>	Wash hands and face before breaks and immediately after handling product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b>	Cryodesiccated Powder	<b>SPECIFIC GRAVITY:</b>	H 0.6 (BULK)
<b>APPEARANCE AND ODOR:</b>	White to off white	<b>EVAPORATION RATE:</b>	Not Available
<b>BOILING POINT:</b>	Not Available	<b>MELTING POINT:</b>	205° C
<b>VAPOR PRESSURE:</b>	Not Available	<b>SOLUBILITY:</b>	Soluble in dimethylformamide
<b>VAPOR DENSITY:</b>	Not Available	<b>pH:</b>	4.5-7 (1g Piperacillin Sodium / 5ml Solution)
<b>Percent Volatile:</b>	5%	<b>Explosive Properties:</b>	Not Available

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## 10. STABILITY AND REACTIVITY

<b>STABILITY:</b>	Stable under normal conditions
<b>INCOMPATIBILITY : (MATERIALS TO AVOID)</b>	Not Available
<b>HAZARDOUS POLYMERIZATION:</b>	No hazardous polymerizations
<b>HAZARDOUS DECOMPOSITION:</b>	Decomposition products of this compound may include potentially hazardous byproducts, acrid and toxic fumes.
<b>CONDITIONS TO AVOID:</b>	No conditions contributing to instability are known to exist. Avoid contact with strong oxidizing agents

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

COMPONENT	TYPE	ROUTE	SPECIES	DOSAGE
Piperacillin Sodium	LD <sub>50</sub>	Oral	Rat	10g/kg
Piperacillin Sodium	LD <sub>50</sub>	Intraperitoneal	Rat	7600 mg/kg
Piperacillin Sodium	LD <sub>50</sub>	Subcutaneous	Rat	8800 mg/kg
Tazobactam Sodium	LD <sub>50</sub>	Oral	Mice	5000mg/kg
Sodium Bicarbonate	LD <sub>50</sub>	Oral	Mice	3360mg/kg

\*Occasionally hypersensitivity reactions have been reported in patients on penicillin therapy. These reactions are more likely to occur in individuals with a history of penicillin hypersensitivity and / or a history of sensitivity to multiple allergens.

## 12. ECOLOGICAL INFORMATION

No applicable information found.

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### 13. DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** Dispose of any cleanup materials and waste residue according to all applicable laws and regulations

### 14. TRANSPORT INFORMATION

**REGULATORY ORGANIZATIONS:**

**DOT:** Not Regulated

**ICAO / IATA:** Not Regulated

**IMO:** Not Regulated

### 15. REGULATORY INFORMATION

Below is selected regulatory information chosen primarily for possible WG Critical Care use. This section is not a complete analysis or reference to all applicable regulatory information. Please consider all applicable laws and regulations for your city / state / country.

**US Regulations**

TSCA – No

CERCLA-No

SARA 313 – No

OSHA Substance Specific - No

### 16. OTHER INFORMATION

As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

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