

## MATERIAL SAFETY DATA SHEET

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Version 1.4

## Section 1 - Product and Company Information

Product Name AMPICILLIN, SODIUM SALT, 98%  
Product Number 271888  
Brand ALDRICH

Company Sigma-Aldrich  
Street Address 3050 Spruce Street  
City, State, Zip, Country SAINT LOUIS MO 63103 US  
Technical Phone: 314 771 5765  
Emergency Phone: 414 273 3850 Ext. 5996  
Fax: 800 325 5052

## Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313 No
AMPICILLIN SODIUM	69-52-3	

Formula C16H18N3NaO4S  
Synonyms Alpen-N \* Amcill-S \*  
D(-)-alpha-Aminobenzylpenicillin sodium salt \*  
Ampicillin sodium \* Ampicillin sodium salt \*  
Binotal sodium \* Citteral \* Domicillin \*  
Omnipen-N \* PEN A/N \* Penbritin-S \* Penialmen \*  
Polycillin-N \* Principen/N \* Sodium  
D(-)-alpha-aminobenzylpenicillin \* Sodium  
ampicillin \* Sodium binotal \* Sodium P-50

RTECS Number: XH8400000

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Harmful.

Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

Target organ(s): Blood.

## HMIS RATING

HEALTH: 3\*

FLAMMABILITY: 0

REACTIVITY: 1

## NFPA RATING

HEALTH: 3

FLAMMABILITY: 0

REACTIVITY: 1

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

## Section 4 - First Aid Measures

#### ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

#### DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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### Section 5 - Fire Fighting Measures

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#### FLASH POINT

N/A

#### AUTOIGNITION TEMP

N/A

#### FLAMMABILITY

N/A

#### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

#### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Specific Hazard(s): Emits toxic fumes under fire conditions.

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### Section 6 - Accidental Release Measures

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#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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### Section 7 - Handling and Storage

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#### HANDLING

User Exposure: Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

#### STORAGE

Suitable: Keep tightly closed. Store under argon.

#### SPECIAL REQUIREMENTS

Store under inert gas. Hygroscopic.

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### Section 8 - Exposure Controls / PPE

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#### ENGINEERING CONTROLS

Mechanical exhaust required.

#### PERSONAL PROTECTIVE EQUIPMENT

Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

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#### Section 9 - Physical/Chemical Properties

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Appearance	Physical State: Solid Color: Slightly yellow	
Property	Value	At Temperature or Pressure
Molecular Weight	371.39 AMU	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	215 °C	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	Degree of Rotation: 20 °C 2 g/l Solvent: H2O +255 (+-5)	
Miscellaneous Data	N/A	
Solubility	Solubility in Water: 50 mg/ml H2O clear, very faintly yellow	

N/A = not available

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#### Section 10 - Stability and Reactivity

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##### STABILITY

Stable: Stable.

Conditions to Avoid: Sensitive to moisture.

Materials to Avoid: Oxidizing agents.

##### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulfur oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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Section 11 - Toxicological Information

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ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes eye irritation.

Inhalation: May be harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

SENSITIZATION

Sensitization: May cause allergic reaction. There are reports of serious and sometimes fatal hypersensitivity (anaphylactic) reactions occurring in people receiving penicillin therapy by the parenteral route although it has also occurred via oral administration. These reactions usually occur in individuals who have a history of sensitivity to multiple allergens, asthma, hay fever or urticaria. Ingestion has resulted in nausea, vomiting, diarrhea, glossitis, stomatitis, enterocolitis, pseudomembranous colitis. Hypersensitivity reactions: erythematous maculopapular rashes, erythema multiforme, urticaria and exfoliative dermatitis.

TARGET ORGAN(S) OR SYSTEM(S)

Blood.

SIGNS AND SYMPTOMS OF EXPOSURE

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

TOXICITY DATA

Oral

Rat

> 5314 mg/kg

LD50

Intraperitoneal

Rat

7400 MG/KG

LD50

Subcutaneous

Rat

>5314 MG/KG

LD50

Oral

Mouse

> 5314 mg/kg

LD50

Intraperitoneal

Mouse

5700 MG/KG

LD50

Subcutaneous

Mouse

>5314 MG/KG  
LD50

#### CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

#### IARC CARCINOGEN LIST

Rating: Group 3

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#### Section 12 - Ecological Information

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No data available.

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#### Section 13 - Disposal Considerations

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#### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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#### Section 14 - Transport Information

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#### DOT

Proper Shipping Name: None  
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

#### IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

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#### Section 15 - Regulatory Information

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#### EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn  
Indication of Danger: Harmful.  
R: 36/37/38 42/43  
Risk Statements: Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.  
S: 22 26 36/37  
Safety Statements: Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.

#### US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Harmful.  
Risk Statements: Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.  
Safety Statements: Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.  
US Statements: Target organ(s): Blood.

#### UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

#### CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

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## Section 16 - Other Information

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### DISCLAIMER

For R&D use only. Not for drug, household or other uses.

### WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.