

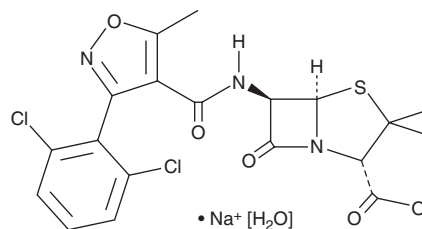
# PRODUCT INFORMATION



## Dicloxacillin (sodium salt hydrate)

Item No. 23770

**CAS Registry No.:** 13412-64-1  
**Formal Name:** (2S,5R,6R)-6-[[[3-(2,6-dichlorophenyl)-5-methyl-4-isoxazolyl]carbonyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, monosodium salt, monohydrate  
**MF:** C<sub>19</sub>H<sub>16</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>5</sub>S • Na [H<sub>2</sub>O]  
**FW:** 510.3  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Dicloxacillin (sodium salt hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the dicloxacillin (sodium salt hydrate) in the solvent of choice. Dicloxacillin (sodium salt hydrate) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of dicloxacillin (sodium salt hydrate) in these solvents is approximately 33 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of dicloxacillin (sodium salt hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of dicloxacillin (sodium salt hydrate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Dicloxacillin is a semisynthetic penicillin antibiotic that has activity against Gram-positive bacteria (MICs = 0.02-0.24 µg/ml for *S. pyogenes*, *S. aureus*, and *D. pneumoniae*).<sup>1</sup> Dicloxacillin is protective against *S. pyogenes*, *S. aureus*, and *D. pneumoniae* infections in mice when administered subcutaneously or orally (PD<sub>50</sub>s = 12-185 and 41-280 mg/kg, respectively). Formulations containing dicloxacillin have been used prophylactically during catheterization and in dog bite patients.

### Reference

1. Miraglia, G.J. and Basch, H.I. Activity of selected penicillins in vitro and in experimental bacterial infections in mice. *Appl. Microbiol.* **15**(3), 566-568 (1967).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM