

SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-O-01308
Product Name	Dicloxacillin
CAS No.	3116-76-5
Category	API
Synonyms	[3-(2,6-Dichlorophenyl)-5-methyl-4-isoxazolyl]penicillin [5-Methyl-3-(2,6-dichlorophenyl)-4-isoxazolyl]penicillin
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email sales@clearsynth.com for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Skin irritation (Category 2)

Serious eye damage/eye irritation (Category 2)

2.2 Label Elements

Signal Word: Warning



Hazard Statement(s)

Code	Statement
H315	Causes skin irritation.
H319	Causes serious eye irritation.

H334	Not available
H335	Not available

Precautionary Statement(s)

Code	Statement
P233	Not available
P260	Not available
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P264+P265	Not available
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Not available
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present.
P319	Get medical help if you feel unwell.
P321	Specific treatment (see ... on this label).
P332+P317	If skin irritation occurs: Get medical help.
P337+P317	If eye irritation persists: Get medical help.
P342+P316	Not available
P362+P364	Take off contaminated clothing and wash it before reuse.
P403	Not available
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Dicloxacillin

CAS Number : 3116-76-5

Molecular Formula : C₁₉H₁₇Cl₂N₃O₅S
 Molecular Weight : 470.32
 Parent Chemical : Cloxacillin
 Synonyms : [3-(2,6-Dichlorophenyl)-5-methyl-4-isoxazolyl]penicillin
 [5-Methyl-3-(2,6-dichlorophenyl)-4-isoxazolyl]penicillin
 Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures

General advice: Seek medical attention if symptoms occur or persist. Show this SDS to medical personnel. Avoid further exposure.

Inhalation: Move person to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, seek medical attention.

Skin contact: Remove contaminated clothing and shoes. Wash skin with plenty of soap and water. Seek medical attention if irritation or sensitization occurs.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.

Ingestion: Rinse mouth. Do NOT induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Not available. As an antibiotic/ β -lactam compound, allergic sensitization reactions may occur in susceptible individuals; data for this product is not available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Not available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical, carbon dioxide (CO₂).

Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture

May decompose under fire conditions to release irritating and/or toxic fumes. Specific decomposition products: Not available.

Dust may form explosive mixture with air (general precaution for organic powders); no data available.

5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective gear. Use water spray to cool unopened containers. Avoid inhalation of combustion products.

SECTION 6: Accidental release measures

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6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing dust. Avoid contact with skin and eyes. Use appropriate personal protective equipment (see Section 8). Ensure adequate ventilation.

6.2 Environmental precautions

Avoid release to the environment. Prevent entry into drains, surface water, or soil. Notify authorities if significant release occurs.

6.3 Methods and material for containment and cleaning up

Avoid generating dust. Collect spilled material using methods that minimize dust generation (e.g., damp wipe or HEPA-filtered vacuum). Place in a suitable, labeled container for disposal. Clean contaminated area with water and detergent.

6.4 Reference to other sections

See Section 8 for personal protective equipment and Section 13 for disposal considerations.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust and aerosols. Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Store in a tightly closed container in a cool, dry, well-ventilated place. Protect from moisture. Keep away from incompatible materials.

Incompatible materials: Not available.

7.3 Specific end use(s)

API / laboratory or manufacturing use. Not for consumer use. Specific end uses: Not available.

SECTION 8: Exposure controls / personal protection

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8.1 Control parameters

Occupational exposure limits: Not available.

Biological limit values: Not available.

8.2 Exposure controls

Engineering controls: Use local exhaust ventilation or other engineering controls to maintain airborne levels below applicable exposure limits (if established). Use dust control measures.

Personal protective equipment (PPE):

- Eye/face protection: Safety glasses with side shields or chemical goggles.
- Skin protection: Protective gloves (material not available). Wear protective clothing to prevent skin contact.
- Respiratory protection: If dust is generated and ventilation is inadequate, use a NIOSH/EN-approved particulate respirator (selection based on risk assessment).
- Hygiene measures: Wash hands after handling. Remove contaminated clothing and wash before reuse.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

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10.1 Reactivity

Not available.

10.2 Chemical stability

Stable under recommended storage conditions. No data available.

10.3 Possibility of hazardous reactions

Not available.

10.4 Conditions to avoid

Heat, flames, ignition sources. Avoid dust generation. Moisture (general precaution); no data available.

10.5 Incompatible materials

Not available.

10.6 Hazardous decomposition products

Irritating and/or toxic fumes may form upon thermal decomposition. Specific products: Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Acute toxicity: IDENTIFICATION AND USE: Dicloxacillin shares the uses of other penicillinase-resistant penicillins, and it is used in treatment of human patients, and animals. HUMAN STUDIES: Dicloxacillin is associated with a high incidence of infusion phlebitis. Acute kidney injury is a known complication of antibiotic use including dicloxacillin. Dicloxacillin exerts toxic effects on cultured endothelial cells. ANIMAL STUDIES: The high degree of protein binding exhibited by dicloxacillin could explain its relatively low chemotherapeutic activity in mice. /HUMAN EXPOSURE STUDIES/ Intravenous administration of antibiotics is a known risk factor for infusion phlebitis. We have previously demonstrated differences in cell toxicity for 4 antibiotics. Clinical experience indicates that antibiotics differ in their tendency to cause phlebitis. The present study was done prospectively on 550 patients with 1386 peripheral venous catheters. The incidence of phlebitis was 18.5% with antibiotics and 8.8% without (odds ratio 2.34). Dicloxacillin (odds ratio 5.74) and erythromycin (odds ratio 5.33) had the greatest tendency to cause phlebitis in univariate, multivariate and Cox regression analyses. Benzylpenicillin, cefuroxime and cloxacillin were also associated with a greater risk of phlebitis, whereas ampicillin, imipenem/cilastatin, clindamycin, netilmicin and vancomycin were not. Other risk factors were the site of insertion and age 51-60 yr. Medication with warfarin was found to be protective, but not with aspirin. Treatment with low molecular weight heparin reduced the risk of phlebitis, but the difference was not significant. With regard to when antibiotics were given, the day-specific risk increased between Days 1 and 2, but no further on subsequent days. The hypothesis that antibiotics differ in their tendency to cause phlebitis was confirmed.

- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: No data available.
- Carcinogenicity: No data available.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure

- No data available.

Symptoms related to the physical, chemical and toxicological characteristics

- IDENTIFICATION AND USE: Dicloxacillin shares the uses of other penicillinase-resistant penicillins, and it is used in treatment of human patients, and animals. HUMAN STUDIES: Dicloxacillin is associated with a high incidence of infusion phlebitis. Acute kidney injury is a known complication of antibiotic use including dicloxacillin. Dicloxacillin exerts toxic effects on cultured endothelial cells. ANIMAL STUDIES: The high degree of protein binding exhibited by dicloxacillin could explain its relatively low chemotherapeutic activity in mice.

SECTION 12: Ecological information

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12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Not available.

12.5 Results of PBT and vPvB assessment

Not available.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

Not available.

SECTION 13: Disposal considerations

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13.1 Waste treatment methods

Dispose of contents/container in accordance with local/regional/national/international regulations. Do not discharge to drains.

Recommended disposal: Incineration or disposal via a licensed chemical waste contractor, as permitted by regulations.

Contaminated packaging: Dispose of as unused product unless cleaned and decontaminated in accordance with applicable regulations.

SECTION 14: Transport information

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14.1 UN number

Not available.

14.2 UN proper shipping name

Not available.

14.3 Transport hazard class(es)

Not available.

14.4 Packing group

Not available.

14.5 Environmental hazards

Not available.

14.6 Special precautions for user

Avoid dust release. Keep container tightly closed and protected from damage and moisture.

14.7 Maritime transport in bulk according to IMO instruments

Not available.

SECTION 15: Regulatory information

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15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Not available. Regulatory status varies by jurisdiction. Ensure compliance with applicable chemical inventory and workplace regulations.

15.2 Chemical safety assessment

Not available.

SECTION 16: Other information

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Synonyms: [3-(2,6-Dichlorophenyl)-5-methyl-4-isoxazolyl]penicillin;

[5-Methyl-3-(2,6-dichlorophenyl)-4-isoxazolyl]penicillin

Supplier: Clearsynth Labs Ltd., Mumbai, India

Emergency phone: +91-22-245045900

Revision date: Not available

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