Sulfathiazole

Cat. No.: HY-B0507
CAS No.: 72-14-0
Molecular Formula: C₉H₉N₃O₂S₂
Molecular Weight: 255.32
Target: Bacterial
Pathway: Anti-infection
Storage: Please store the product under the recommended conditions in the COA.

BIOLOGICAL ACTIVITY

<table>
<thead>
<tr>
<th>Description</th>
<th>Sulfathiazole, an organosulfur compound, is used as a short-acting sulfonamide antibiotic.</th>
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</thead>
<tbody>
<tr>
<td>IC₅₀ &amp; Target</td>
<td>Antibacterial</td>
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</table>

In Vitro

Sulfathiazole (20 μg/L) starts to be degraded between day 31 and day 38 in one of the two batch reactors containing different wastewater matrices. Sulfathiazole is degraded at a substantially faster rate than sulfamethoxazole or sulfamethazine in the nitrification process (S3). Recovery from spiked manure slurry samples is 64% for Sulfathiazole at pH 9. Sulfathiazole has acidity constant of pKa of 7.1 and retention times (tR) of 7.8. S/N values for Sulfathiazole are above 100 at the 1 mg/kg level. Sulfathiazole sorption to inorganic sorbents exhibits pronounced pH dependence consistent with sorbate speciation and sorbent charge properties. Sulfathiazole cations are most important for sorption to clay minerals, followed by neutral species.

CUSTOMER VALIDATION


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REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.

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