

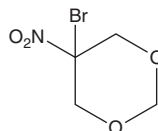
PRODUCT INFORMATION



5-bromo-5-nitro-1,3-Dioxane

Item No. 20935

CAS Registry No.: 30007-47-7
Formal Name: 5-bromo-5-nitro-1,3-dioxane
Synonym: Bronidox
MF: C₄H₆BrNO₄
FW: 212.0
Purity: ≥98%
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



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

Laboratory Procedures

5-bromo-5-nitro-1,3-Dioxane is supplied as a crystalline solid. A stock solution may be made by dissolving the 5-bromo-5-nitro-1,3-dioxane in the solvent of choice, which should be purged with an inert gas. 5-bromo-5-nitro-1,3-Dioxane is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 5-bromo-5-nitro-1,3-dioxane in ethanol is approximately 25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

5-bromo-5-nitro-1,3-Dioxane is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 5-bromo-5-nitro-1,3-dioxane should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 5-bromo-5-nitro-1,3-Dioxane has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

5-bromo-5-nitro-1,3-Dioxane is an antimicrobial compound that is effective against Gram-positive and Gram-negative bacteria and fungi, including yeast.¹ Its mode of action occurs *via* the oxidation of essential protein thiols causing inhibition of enzyme activity and subsequent inhibition of microbial growth.¹ This compound has been used as a preservative for biological molecules and solutions such as antibodies and antisera.

Reference

1. Ghannoum, M., Thomson, M., Bowman, W., *et al.* Mode of action of the antimicrobial compound 5-bromo-5-nitro-1,3-dioxane (bronidox). *Folia Microbiol. (Praha)* **31(1)**, 19-31 (1986).

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.

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