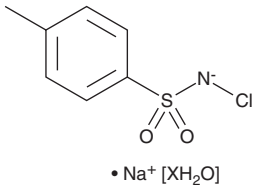
PRODUCT INFORMATION

Chloramine-T (hydrate)

Item No. 30533

CAS Registry No.:	149358-73-6
Formal Name:	N-chloro-4-methyl-benzenesulfonamide, sodium salt, hydrate
MF:	$C_7H_7ClNO_2S \bullet Na\ [XH_2O]$
FW:	227.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 219 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Chloramine-T (hydrate) is supplied as a solid. A stock solution may be made by dissolving the chloramine-T (hydrate) in the solvent of choice, which should be purged with an inert gas. Chloramine-T (hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of chloramine-T (hydrate) in these solvents is approximately 5, 15, and 10 mg/ml, respectively.

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 chloramine-T (hydrate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of chloramine-T (hydrate) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Chloramine-T is a common reagent in a variety of synthetic processes.[1] It has been used as a reagent in aminohydroxylation and allylic amination reactions, as a nitrogen source for the aziridination of alkenes and olefins, and in the deprotection of thio groups in sulfur-containing compounds, among others. It has been used as a reagent in the synthesis of Factor Xa inhibitors.[2] Chloramine-T (0.2% w/v) is also an antiseptic agent that is bactericidal against *S. epidermidis*, *S. aureus*, *E. faecalis*, *E. coli*, *P. mirabilis*, and *E. cloacae*.[3]

References

1. Agnihotri, G. Chloramine-T (sodium *N*-chloro-*p*-toluenesulfonamide). *Synlett* **18**, 2857-2858 (2005).
2. Lam, P.Y.S., Clark, C.G., Li, R., *et al*. Structure-based design of novel guanidine/benzamidine mimics: Potent and orally bioavailable factor Xa inhibitors as novel anticoagulants. *J. Med Chem*. **46(21)**, 4405-4418 (2003).
3. Fuursted, K., Hjort, A., and Knudsen, L. Evaluation of bactericidal activity and lag of regrowth (postantibiotic effect) of five antiseptics on nine bacterial pathogens. *J. Antimicrob. Chemother*. **40(2)**, 221-226 (1997).

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