

# PRODUCT IN FOCUS



# **Octenidine Dihydrochloride**

#### INTRODUCTION

Octenidine dihydrochloride is a cationic surfactant, with a gemini-surfactant structure. Since 1987, it has been used primarily in Europe as an antiseptic prior to medical procedures, including on neonates. It is safe to handle and chemically stable.

#### Manufacture

This quaternary compound salt is derived from octenidine and hydrochloric acid.

Synonym

N-octyl-1-[10-(4-octyliminopyridin-1-yl)decyl]pyridin-4-imine;dihydrochloride

CAS no.

70775-75-6

EINECS no.

274-861-8

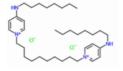
Molecular formula

 $C_{36}H_{64}CI_{2}N_{4}$ 

Molecular weight

623.83

Structure



## **APPLICATIONS**

Octenidine dihydrochloride finds extensive application in medical, industrial, and even food and cosmetic realms

- Widely recognized for its exceptional antiseptic, antibacterial, and antifungal properties, It is used for the treatment of wound infections and for disinfecting the skin and mucous membrane.
- Also, it exhibits anti-inflammatory and analgesic properties, providing relief from inflammation and pain.
- Octenidine dihydrochloride has been subject to extensive in vitro studies. Its efficacy in treating bacterial and fungal infections has been explored, showcasing its effectiveness against both gram-positive and gram-negative bacteria.
- Researchers have evaluated its potential as a combatant against viruses, revealing its favorable outcomes in combating select viral strains.



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# **SPECIFICATIONS**

Test	Unit	Specification
Description	-	A white to off white powder
Solubility	-	Freely soluble in Methanol and Dichloromethane, slightly soluble in N,N-dimethyl formamide
Identification a. By IR spectrum	-	The IR spectrum of sample should be concordant with that of working standard of Octenidine Dihydrochloride
b. Chloride	-	b. It gives reaction for chloride
Assay by HPLC	%	Between 98.0 to 101.0 on anhydrous basis
Related substances by HPLC  a. 4-Octyl amino pyridine  b. Single unknown impurity  c. Total impurities	% % %	NMT 0.15 NMT 0.10 NMT 0.5
Heavy metals	ppm	NMT 10.0
Sulphated ash	%	NMT 0.5
Water content	%	NMT 2.0
Residual solvents - Methanol - N,N-Dimethyl formamide - Acetone	ppm ppm ppm	NMT 3000 NMT 880 NMT 5000



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# **PACKING**

25 kg Fiber drum.

### **STORAGE**

Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature.

### **CERTIFICATION**

WHO-GMP and DMF

No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.