Nystatin
PRODUCT DATA SHEET

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Product Name:	Nystatin
Product Number:	N010
CAS Number:	1400-61-9
Molecular Formula:	(Nystatin A1) $C_{47}H_{75}NO_{17}$
Molecular Weight:	926.09 (Nystatin A1)
Form:	Powder
Appearance:	Yellow Powder
Solubility:	Soluble in methanol and ethanol. It is sparingly soluble in water.
Source:	*Streptomyces noursei and Streptomyces aureus*
pH:	6.0 - 8.0
Storage Conditions:	-20 °C
Description:	Nystatin is a fungicidal and fungistatic polyene antifungal and growth promoter. It functions by accumulating cholesterol and thereby sequesters lipid from cell membranes. It can be used in quantum dot research, since cholesterol depletion could block several lipid raft-dependent endocytic pathways.
Mechanism of Action:	Nystatin binds ergosterol in the fungal cell membrane forming pores and increasing permeability. The altered permeability is toxic to the fungi leading to growth inhibition or death.
Spectrum:	Nystatin primarily targets the cell membrane of *Candida* species especially those which cause vaginal infections.
Microbiology Applications	Nystatin is commonly used in clinical *in vitro* microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against fungal isolates. Medical microbiologists use AST results to recommend treatment options. Representative effective ranges include: ◦ *Candida albicans* 0.78 µg/mL - 400 µg/mL For a representative list of Nystatin MIC values, click here.
Plant Biology Applications	Nystatin can be used in plant tissue culture to control contamination.

References:

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Watts JW and King JM 1973) The use of antibiotics in the culture of non-sterile plant protoplasts. Planta. 113(30:271-277

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