Amphotericin B, Solubilized
PRODUCT DATA SHEET

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Product Name:	Amphotericin B, Solubilized
Product Number:	A008
CAS Number:	1397-89-3 (Amphotericin B)
Molecular Formula:	$C_{47}H_{73}NO_{17}$ (Amphotericin B)
Molecular Weight:	924.08 (Amphotericin B)
Form:	Powder
Appearance:	Yellow or orange powder
Solubility:	0.05% in H_2O: hazy yellow solution
Source:	*Streptomyces nodosus*
Storage Conditions:	2-8°C

Description:

Amphotericin B, Solubilized is a solubilized form of Amphotericin B, a polyene antibiotic used used to control contamination from fungi, viruses, and protozoa.

Amphotericin B is derived from *Streptomyces nodosus* and is nearly insoluble in water in its standard form. The addition of sodium deoxycholate is required in order to maximize the solubility.

TOKU-E offers three forms of Amphotericin B:

- Amphotericin B, Solubilized (A008)
- Amphotericin B, USP (A007)
- Amphotericin B, EP (A064)

Mechanism of Action:

Amphotericin B associates with membrane sterols (ergosterol in fungal cell membranes, and cholesterol in mammalian cell membranes). Amphotericin B forms a pore in these membranes resulting in leakage of essential ions and ultimately cell death.

Spectrum:

Amphotericin B is active against mammalian cells, fungi, viruses, and protozoa. Amphotericin B is not toxic to bacteria due to their lack of sterols.. The following represents MIC susceptibility data for amphotericin B against common fungal pathogens:

- *Candida albicans* - 0.001 - 321 µg/mL
- *Candida krusei* - 0.001 - 16 µg/mL
- *Coccidioides immitis* - 0.0625 - 2 µg/mL
- *Cryptococcus neoformans* - 0.2 - 39 µg/mL
- *Fusarium oxysporum* - 0.75 - 125 µg/mL

Microbiology Applications Amphotericin B is used as an antimycotic selective agent in several routinely used selective media formulations to inhibit the growth of background fungal growth. It can also combat viruses and protozoa.

Plant Biology Applications Amphotericin B can be used to inhibit phytopathogenic fungi *in vitro*

References:

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