

Document Title: <b>Slick, Microorganisms in Pharma</b>		Part # and Rev. <b>18100</b>	
		Release Date:	
Rev.	Description	Revision By	Date
Date -- Time	Description added from Sharpdots	Allison	6/10/16

**Production Filename:**

[http://publications.decagon.com/Marketing/Description%20Files/18100\\_Slick\\_Microorganisms\\_in\\_Pharma.pdf](http://publications.decagon.com/Marketing/Description%20Files/18100_Slick_Microorganisms_in_Pharma.pdf)

**Printing Process:** Digital

**Size:** 8.5 x 11 inches

**Ink:** 4/0 Color Front Only

**Paper:** 100 lbs Book Gloss Coated

**Page count:** 2

**Proof type:** soft proof

**Single Hole Drilling:** none

Water Activity and Growth of Microorganisms for Consumer and Pharmaceutical Products*		
Range of $a_w$	Microorganisms Generally Inhibited by Lowest $a_w$ in the Range	Consumer and Pharmaceutical Products Generally within the Range
1.00–0.95	Protozoans, Fungi, Bacteria, Yeasts, Gram-negative bacilli, Gram-positive bacilli, Gram-negative bacilli, Gram-positive bacilli	Animal products, meat, dairy, poultry, fish, eggs, fruits, vegetables, bread, cereals, etc.
0.95–0.91	Gram-negative bacilli, Gram-positive bacilli, Gram-negative bacilli, Gram-positive bacilli	Soft fruits, vegetables, cereals, etc.
0.91–0.87	Gram-negative bacilli, Gram-positive bacilli, Gram-negative bacilli, Gram-positive bacilli	Animal products, meat, dairy, poultry, fish, eggs, fruits, vegetables, bread, cereals, etc.
0.87–0.80	Moulds, yeasts, Gram-negative bacilli, Gram-positive bacilli, Gram-negative bacilli, Gram-positive bacilli	Animal products, meat, dairy, poultry, fish, eggs, fruits, vegetables, bread, cereals, etc.
0.80–0.75	Moulds, yeasts, Gram-negative bacilli, Gram-positive bacilli, Gram-negative bacilli, Gram-positive bacilli	Highly hygroscopic products, e.g., sugar, salt, etc.
0.75–0.65	Yeasts, moulds, Gram-negative bacilli, Gram-positive bacilli, Gram-negative bacilli, Gram-positive bacilli	Food products, e.g., bread, etc.
0.65–0.60	Yeasts, moulds, Gram-negative bacilli, Gram-positive bacilli, Gram-negative bacilli, Gram-positive bacilli	Food products, e.g., bread, etc.
0.60–0.50	No microbial proliferation	Animal products, e.g., meat, etc.
0.50–0.40	No microbial proliferation	Animal products, e.g., meat, etc.
0.40–0.30	No microbial proliferation	Animal products, e.g., meat, etc.
0.30–0.20	No microbial proliferation	Animal products, e.g., meat, etc.
<0.10	No microbial proliferation	Animal products, e.g., meat, etc.

\* Adapted from Water Activity Applications in the Pharmaceutical Industry

AQUA LAB