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Dispensing Detergents With the I.DOT

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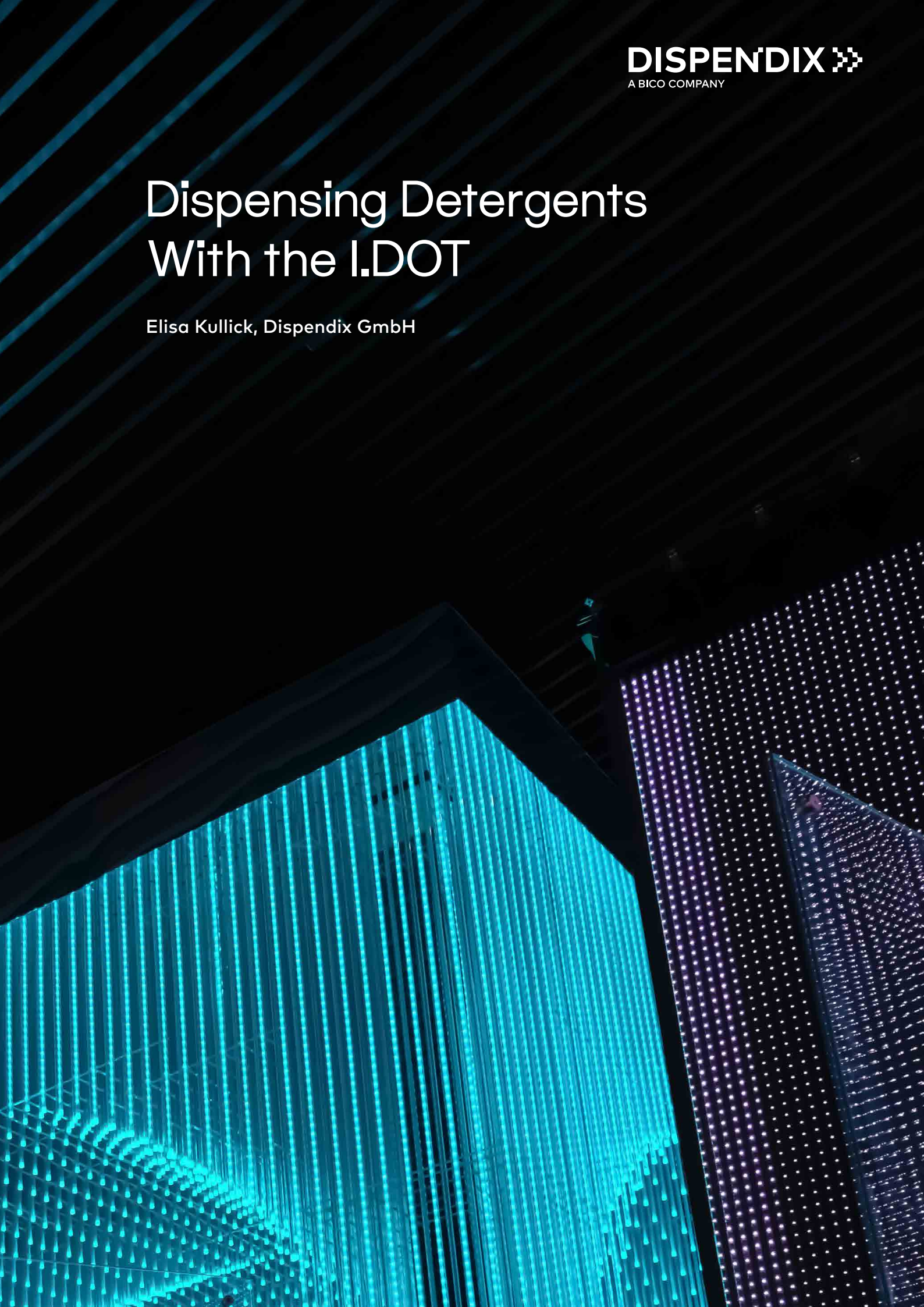
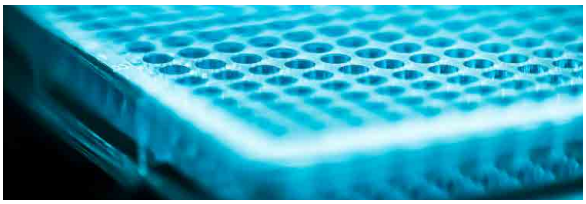
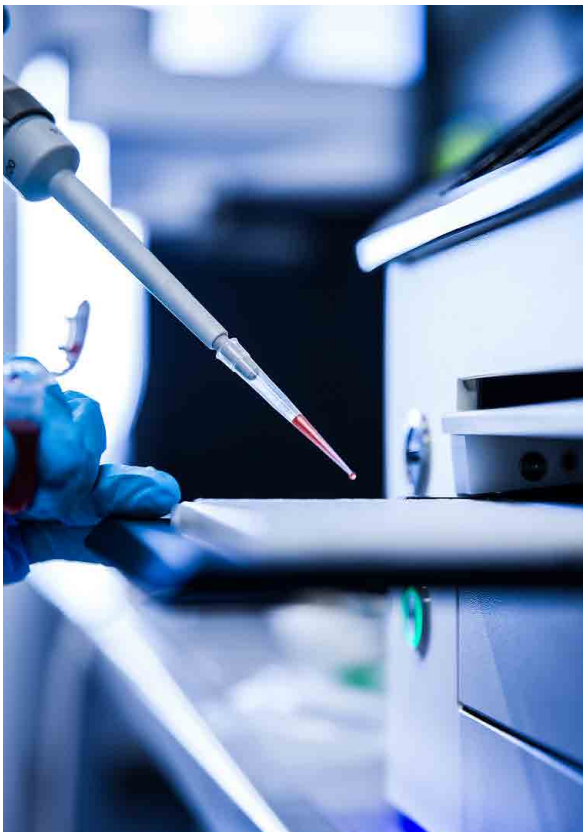


Dispensing Detergents With The I.DOT

Detergents, also termed as tensides or surfactants are used in laboratories every day. They are commonly used in biochemistry, cell biology or molecular biology. A few examples of applications include cell lysis, protein solubilization, protein crystallization, or reduction of background staining in blotting experiments.

Detergents are amphipathic compounds with both hydrophobic and hydrophilic sides within the same molecule.





Liquid Class Identification & Dispensing Of Detergents

The liquid handling of detergents is challenging, as they tend to foam easily. Additionally, due to their ability to decrease the surface tension of water, detergent dilutions up to a specific percentage are often more fluid than pure water.

However, they start to get more viscous than water when the amount of detergent reaches an amount of more than ~ 5-10 %.

With the right settings and the identification of the fitting liquid classes the I.DOT makes the dispensing of detergents very simple. We could successfully dispense the following detergents with the I.DOT:

Liquid	Liquid Class	Dosing Energy Range	Droplet Volume Range	Well Type
Brij35 0,6 %	Water LQC	70 – 200 mbar*ms	13,5-33,1 nL	S.100
DDM (N-Dodecyl-B-D-Maltoside) 0,6 %	LQC0.8	70 – 200 mbar*ms	15,4-37,7 nL	S.100
Triton X-100 0,1 %	Water LQC	70 – 200 mbar*ms	13,5-33,1 nL	S.100
Triton X-100 1 %	LQC 0.7	70 – 200 mbar*ms	17,5-40,5 nL	S.100
Triton X-100 10 %	LQC2	70 – 200 mbar*ms	10,8-27,0 nL	S.100
TWEEN 20 0,1 %	Water LQC	70 – 200 mbar*ms	13,5-33,1 nL	S.100
TWEEN 20 1 %	Water LQC	70 – 200 mbar*ms	13,5-33,1 nL	S.100
TWEEN 20 10 %	LQC1	70 – 200 mbar*ms	12,3-28,8 nL	S.100
IGEPAL 0,1 %	Water LQC	70 – 200 mbar*ms	13,5-33,1 nL	S.100
IGEPAL 1 %	Water LQC	70 – 200 mbar*ms	13,5-33,1 nL	S.100
IGEPAL 10 %	LQC1	70 – 200 mbar*ms	12,3-28,8 nL	S.100

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