HOME CARE
AND I&I

INDORAMA VENTURES

OXISENSE® H 1000

Green hydrotrope for easily and sustainably formulations

The OXISENSE® H 1000 is an anionic hydrotrope, 100% natural derived, biodegradable and free from: phosphates, dioxane and aromatic derivatives.

Their composition is waterless containing 100% of actives and in its acid format, letting the formulator elect the best option to neutralize it providing counterion versatility.

Moreover, the OXISENSE® H 1000 is effective when in comparison with market competitors, because it delivers excellent salting-out performance, cloud point rising, kraft point reduction, wetting and viscosity control properties in addition to other benefits to the formulation.

TECHNICAL ATTRIBUTES

- Increases water solubility for poor soluble ingredients
- Counterion versatility
- Salting-out performance: suitable for low and high alkaline levels
- It doesn't impact on product foamability
- Kraft point reduction

SUSTAINABLE ATTRIBUTES

- Waterless (100% actives)
- 100% natural derived
- Biodegradable
- Aromatic, phosphorous and dioxane free

APPLICATIONS

Laundry Care

Dishwashing

Surface Care

PERFORMANCE EVALUATION | **CLOUD POINT RISING ASSESSMENT**

OXISENSE® H 1000 as a hydrotrope, plays a crucial role in increasing the cloud point of cleaning formulations.

INITIAL CONDITIONS

System: Lauryl Alcohol 6 EO in Water

25°C

Clear solution

39.5°C

Turbid

SCREENING

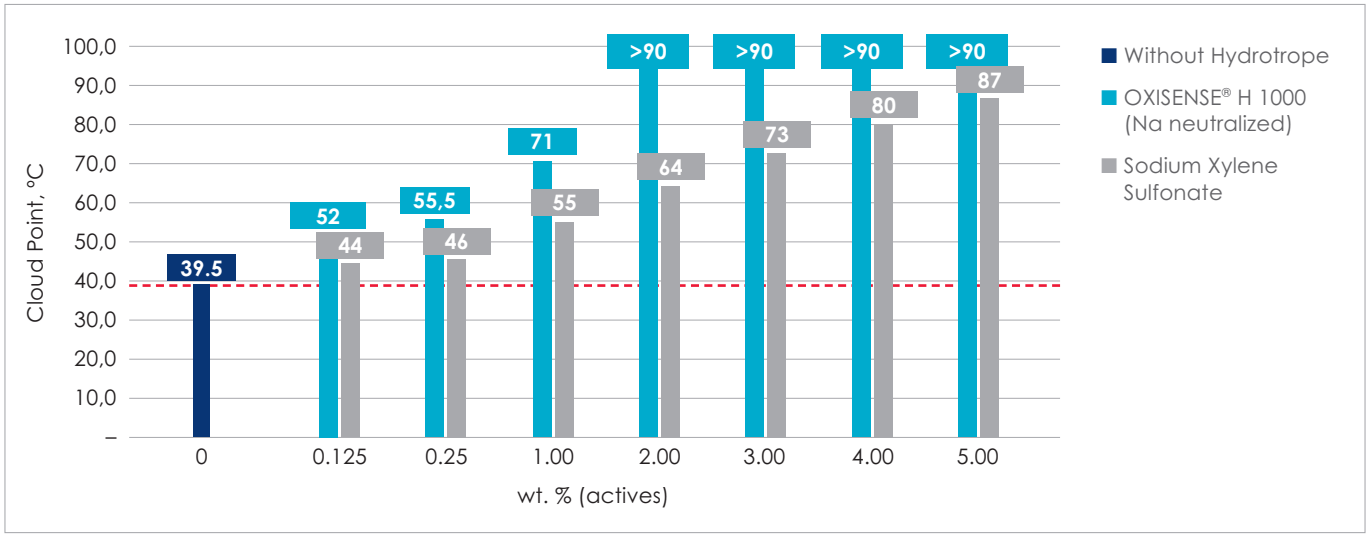
Adding the Hydrotropes at several wt.%:

Ingredient	C1	C2	C3	C4	C5	C6	C7
Lauryl Alcohol 6 EO	1%	1%	1%	1%	1%	1%	1%
Sodium Xylene Sulfonate	0.125%	0.25%	1%	2%	3%	4%	5%
Water	q.s.to 100	q.s.to 100	q.s.to 100	q.s.to 100	q.s.to 100	q.s.to 100	q.s.to 100

Ingredient	A1	A2	A3	A4	A5	A6	A7
Lauryl Alcohol 6 EO	1%	1%	1%	1%	1%	1%	1%
OXISENSE® H 1000	**0.11%**	**0.22%**	**0.88%**	**1.75%**	**2.64%**	**3.52%**	**4.40%**
Sodium Hydroxide	0.03%	0.06%	0.23%	0.46%	0.69%	0.92%	1.15%
Water	q.s.to 100	q.s.to 100	q.s.to 100	q.s.to 100	q.s.to 100	q.s.to 100	q.s.to 100

RESULTS

Cloud point rising performance:



In the conducted test, the addition of OXISENSE® H 1000 to the formula resulted in, a significant increase using a lower concentration than sodium xylene sulfonate. In other words, the performance was up to superior considering the above test.

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PERFORMANCE EVALUATION | **SALTING-OUT ASSESSMENT**

OXISENSE® H 1000 as a hydrotrope, helps to avoid the salting-out of non-ionic surfactants in the presence of alkaline builders like sodium carbonate and sodium metasilicate in cleaning formulations.

INITIAL CONDITIONS

Incompatible system: Water-Lauryl Alcohol 7 EO-Alkalline Builders

Turbidity and phase separation

Ingredients	Actives (wt. %)
Water	87
Sodium metasilicate	4
Sodium carbonate	4
Lauryl Alcohol 7 EO	5
Total	**100**

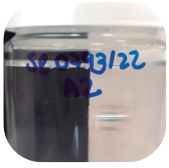
SCREENING

Adding the Hydrotropes at several wt.%:

Ingredient	B1	B2	B3
Water	q.s.to 100	q.s.to 100	q.s.to 100
Sodium Xylene Sulfonate	1%	2%	3%
Lauryl Alcohol 7 EO	5%	5%	5%
Sodium metasilicate	4%	4%	4%
Sodium carbonate	4%	4%	4%

Ingredient	A1	A2	A3
Water	q.s.to 100	q.s.to 100	q.s.to 100
OXISENSE® H 1000	**0.88%**	**1.75%**	**2.64%**
Sodium Hydroxide	0.23%	0.46%	0.69%
Lauryl Alcohol 7 EO	5%	5%	5%
Sodium metasilicate	4%	4%	4%
Sodium carbonate	4%	4%	4%

RESULTS

B1	B2	B3	A1	A2	A3
					
Turbid and phase separation	Turbid and phase separation	Clear and without phase separation	Slight haze and no phase separation	Clear and without phase separation	Clear and without phase separation

In the conducted test, the OXISENSE® H 1000 demonstrates exceptional performance in preventing salting-out, outperforming sodium xylene sulphonate by reducing the hydrotrope concentration around 30%.