



# ALKEST® LV 1400

## Green Solvent



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Green cleaning chemicals refer to those chemicals which are made from environmental-friendly ingredients and are **safe for human health and the environment**. They are made from a renewable resource, and with some exceptions, generally do not contain synthetics.

Green chemical-based formulations are already present in the market. The main issue with these chemicals is that though they can clean their performance in comparison with the industrial cleaning chemicals is not very effective. Thus, the market for these products is still very small and will take a long time to grow and compete with that of the industrial cleaning chemicals.

**ALKEST® LV 1400** is a **green solvent** that changes the previously mentioned perceptions. It is based on a **100% natural** derived raw material, **readily biodegradable**, and promotes high efficiency. Its lipophilic nature allows a better interaction with oily soil leading to a high performance in cleaning and degreasing, which is especially true for **I&I** and **household hard cleaning** applications.

# BENEFITS



High cleaning performance



VOC exempt



Non-flammable



Readily biodegradable

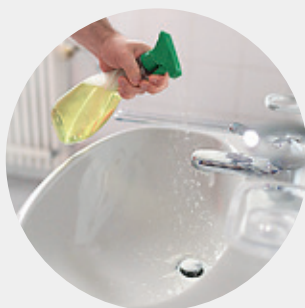


Renewable origin

# APPLICATIONS



**I&I and Home  
Care cleaners**



**All purpose, kitchen, and  
bathroom cleaners**



**Degreasers**



**Concentrated cleaners**



**Microemulsion cleaners**

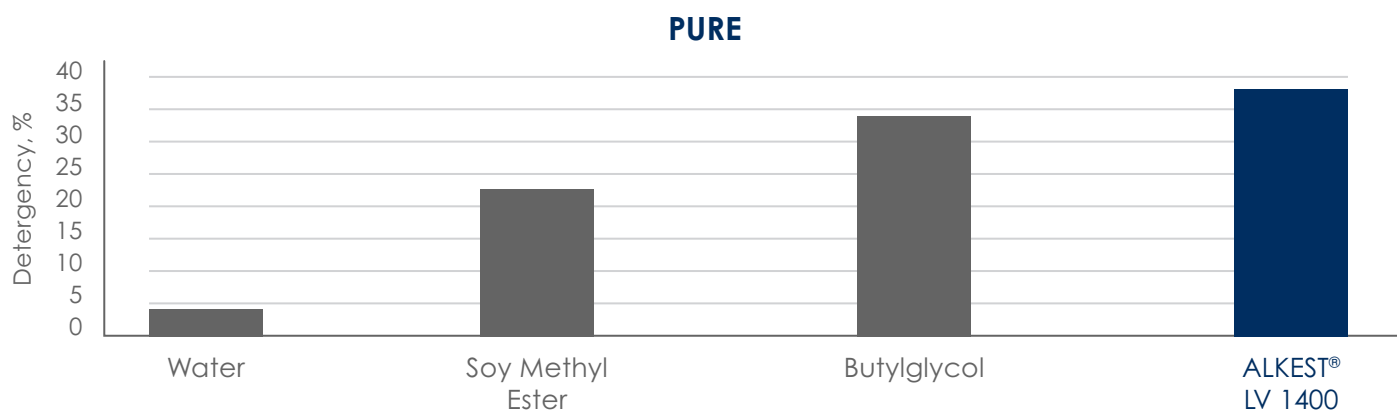


**Waterless cleaners**





## SOLVENTS CLEANING ASSESSMENT



**Soil:** Stearic acid + Oleic acid + Carbon black

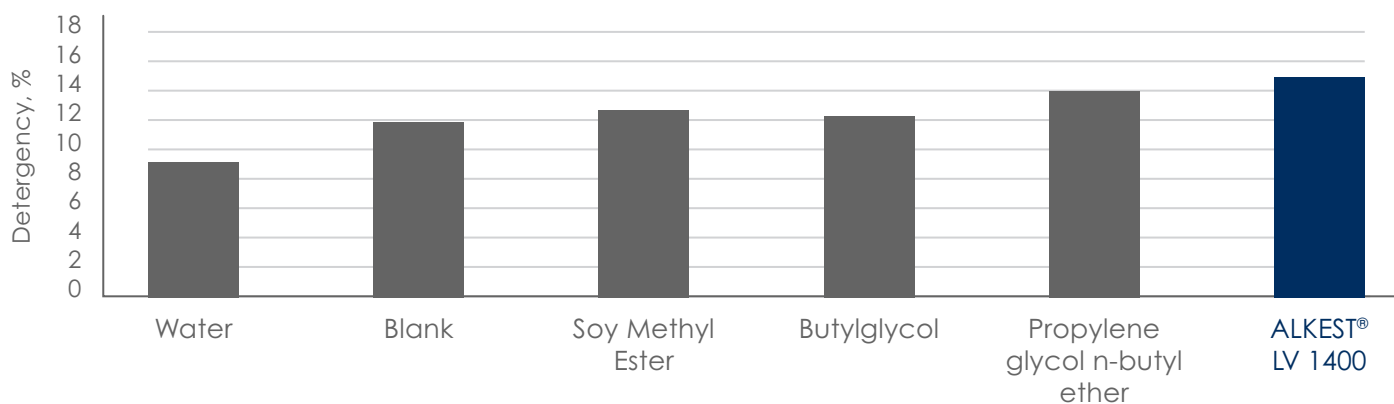
**Surface:** PVC tiles

**Test method:** Gardner Scrub

100% solvent

INGREDIENTS	ACTIVES WT. %	
	Blank	Microemulsion
Water	65	60
C9-C11 Alcohol 6 EO	25	25
C9-C11 Alcohol 8 EO	5	5
Sodium Xylene Sulfonate	2.5	2.5
Propyleneglycol	2.5	2.5
Solvent	-	5
<b>Total</b>	<b>100</b>	<b>100</b>

### MICROEMULSION FORMULATION



**Soil:** Stearic Acid + Vegetable Oil + Carbon black

**Surface:** PVC tiles

**Test method:** Gardner Scrub

**Dilution:** 50% Cleaner in 50% Water

pH = 7



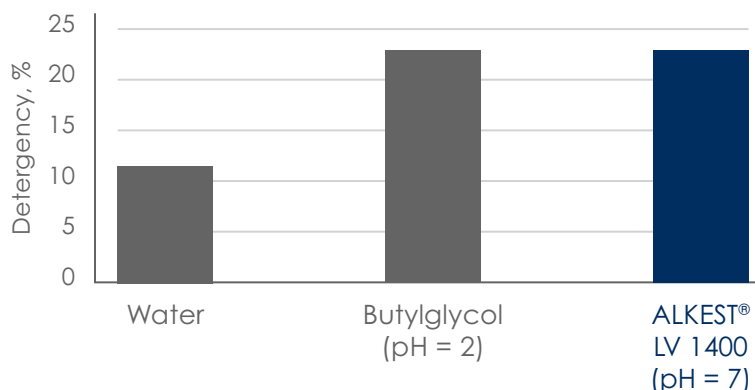


## SOLVENTS CLEANING ASSESSMENT

**Neutral pH** cleaning formulations are **safer** for people, the environment and surfaces when compared to acidic or alkaline cleaners. **Neutral pH** presents a lower potential for environmental harm and inhalation, oral and dermal toxicity.

**ALKEST® LV 1400** allows **neutral pH formulations** (the use of acids and bases compromises **ALKEST® LV 1400's** stability in aqueous environments). **Neutral pH cleaners** formulated with **ALKEST® LV 1400** do not demand protective gloves to minimize contact of the product with the skin thus enhancing **safer cleaning**.

### MICROEMULSION FORMULATION, NEUTRAL PH VS. ACID PH



**Soil:** Calcium stearate + Lanolin + Lard + Carbon black

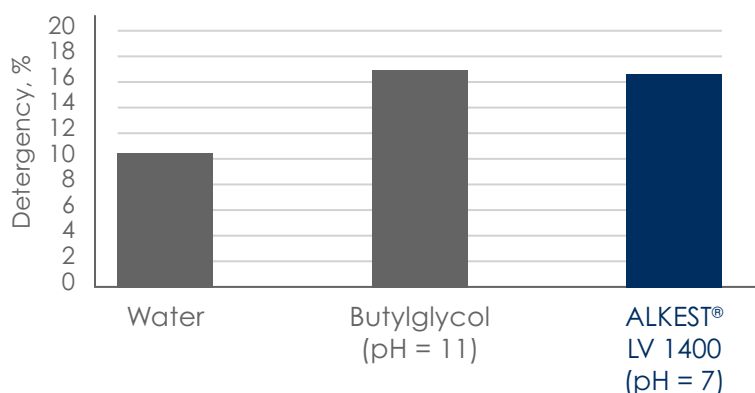
**Surface:** PVC tiles

**Test method:** Gardner Scrub

**Dilution:** 50% Cleaner in 50% Water

ALKEST® LV 1400 @ pH 7 / Butylglycol @ pH 2

### MICROEMULSION FORMULATION, NEUTRAL PH VS. ALKALINE PH



**Soil:** Stearic Acid + Vegetable Oil + Carbon black

**Surface:** PVC tiles

**Test method:** Gardner Scrub

**Dilution:** 50% Cleaner in 50% Water

ALKEST® LV 1400 @ pH 7 / Butylglycol @ pH 11

## PHYSICAL PROPERTIES

PROPERTY	TYPICAL VALUE, UNITS
Appearance @ 25°C	Liquid, colorless to pale yellow
Boiling Point @ 760 mm Hg	283°C
Required HLB for O/W Emulsions	13.4



**DOSAGE**  
From **0.5%**



**SHELF-LIFE**  
**18 months** in original  
unopened packaging





#### DISCLAIMER

This information is provided in good faith, based on Oxiteno's current knowledge of the subject and is purely indicative. No information, including suggestions for using the products, should preclude experimental testing and verification, which are essential to ensuring the suitability of the products for each specific application. Consult the contact from your region or country regarding the availability of each product. All users must also respect local laws and obtain all the necessary permits. When handling the product, consult the safety data sheet. If you have any questions or additional needs, please contact Indorama Ventures through our customer service channels.

MARCH/23.