

ACTIMULSI GA20

SILICONE-LIKE TOUCH • IMPROVES THE SENSORIAL OF EMULSIONS

**ACTIMULSI
GA20 HAS
AN ANTI-
INFLAMMATORY
ACTIVITY THAT
IMPROVES THE
STABILITY
AND THE
SENSORIAL OF
EMULSIONS**

ASSESSA
INNOVATION FOR A GREENER WORLD

ACACIA SENEGAL

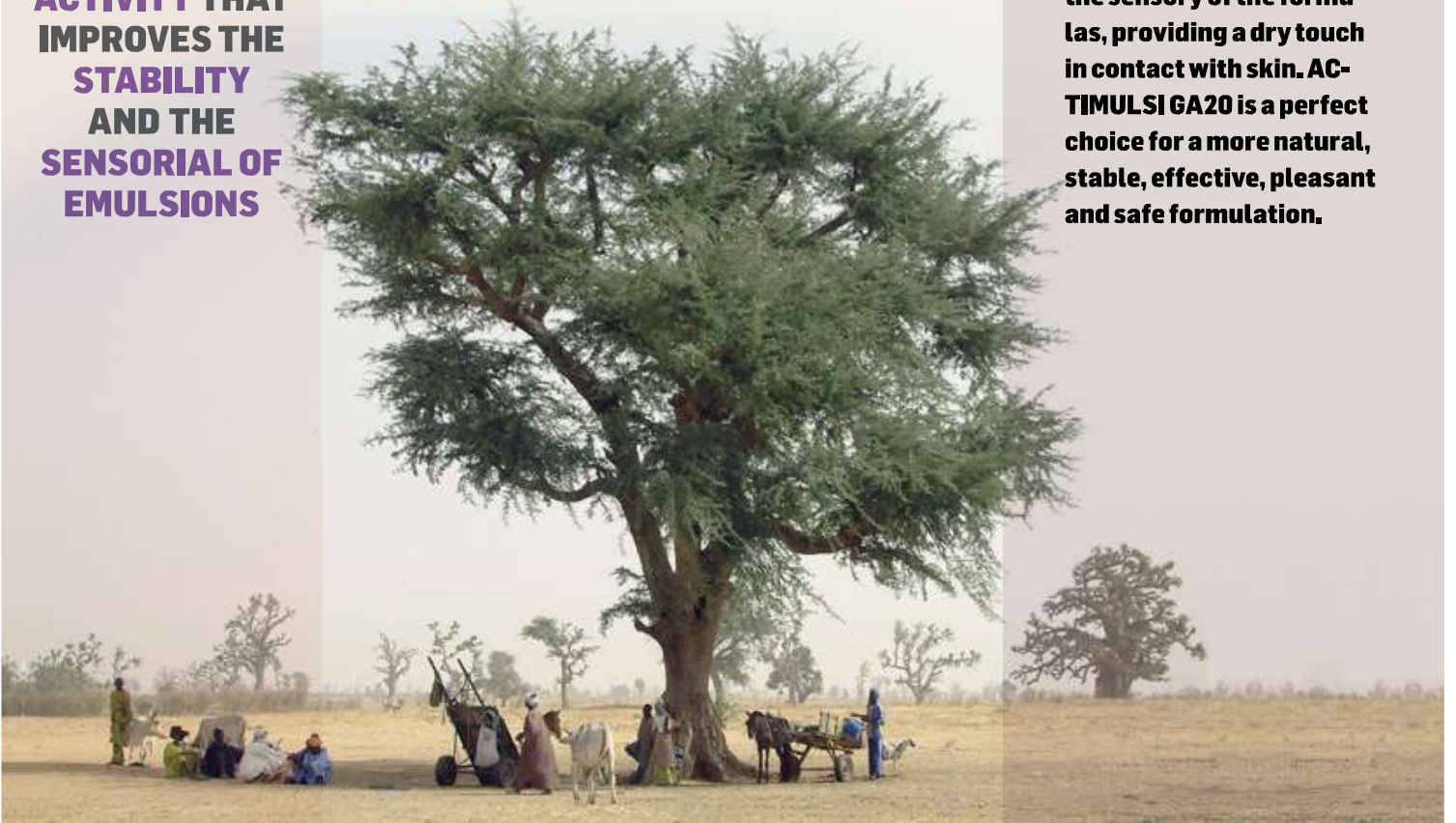


Some plants, when exposed to environmental stress, or suffer physical attacks such as cuts, shocks and insect bites, or are attacked by microorganisms, produce defense substances that act as auxiliary barriers, preventing pathogen attacks and allowing the recovery of the plant tissue. Acacia Senegal is a specie of leguminous native to semi-desert regions of Sub-Saharan Africa, that in situations of stress produces an exudate rich in heteropolysaccharides which protects the plant from attacks and damage, allowing it to survive in an extremely hostile environment. Perceiving Acacia's exceptional strength to assaults and its ability to recover from injuries and attacks, Assessa's scientists found in its exudate inspiration to develop ACTIMULSI GA20.



A NATURAL BIOACTIVE

ACTIMULSI GA20 is a natural multifunctional bioactive derived from the scar of Acacia Senegal exudate, which has three distinct features: 1) soothing and anti-inflammatory action, allowing formulation of products for sensitive skin; 2) acts as a co-emulsifier in cosmetic formulas reducing the need of use of synthetic emulsifiers; helping in the stabilization of formulas; and 3) improves the sensory of the formulas, providing a dry touch in contact with skin. ACTIMULSI GA20 is a perfect choice for a more natural, stable, effective, pleasant and safe formulation.

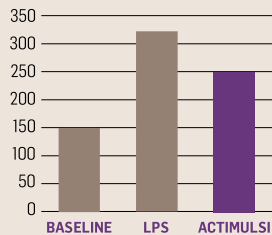


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ANTI-INFLAMMATORY ACTIVITY

TNF- α (PG/ML)



ACTIMULSI GA20 reduces the production of inflammatory markers (TNF- α) in 24.7% in sensitized cells. TNF is a group of molecules which possess a wide range of proinflammatory actions. TNF was produced by macrophages incubated for 1 hour in the presence of the active and, subsequently, stimulated with LPS (100 ng/ml) for 24h.

STABILITY

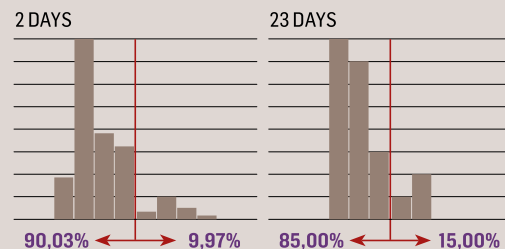
Due to its structural feature, ACTIMULSI GA20 acts as a natural co-emulsifier agent. Studies show that the use of ACTIMULSI GA20 in emulsions allows the reduction of the use of surfactants up to 65% without loss of stability.

The analysis of the frequency of distribution of micelles by size (diameter) and their variation over time is a good measure for evaluating the stability of an emulsion. Less stable emulsions present tendency to coalescence of micelles, observed by its increasing size. Stable emulsions do not present this tendency, remaining unchanged over time.

Graphs below show the distribution of micelles of the Control Formula and the Test Formula after 2 and 23 days.

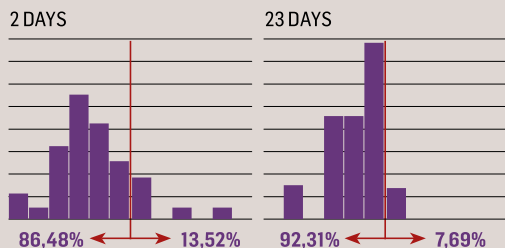
DISTRIBUTION OF MICELLES BY SIZE (DIAMETER IN MICRONS)

CONTROL FORMULA



Control Formula increased the size of the micelles, with average diameter greater than 1.3 microns.

TEST FORMULA



Test Formula containing 0.5% of ACTIMULSI GA20 showed tendency to stability over time.

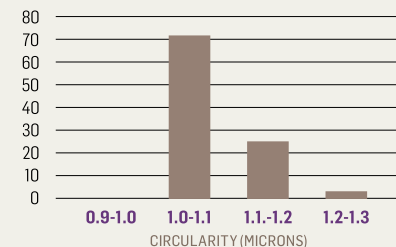


SENSORY

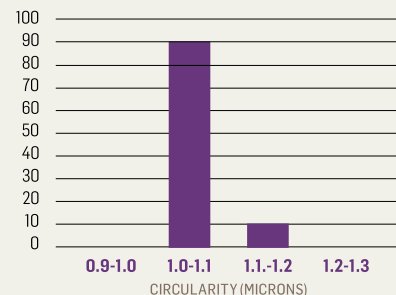
The use of ACTIMULSI GA20 improves emulsions sensorial attributes, adding a pleasant dry touch. Emulsions formed by micelles more circular have sensory properties higher than those by emulsions formed by irregularly-shaped micelles.

DISTRIBUTION OF CIRCULARITY HISTOGRAMS (% MICELLES)

CONTROL FORMULA



TEST FORMULA



Test Formula containing 1.0% of ACTIMULSI GA20 showed greater circularity, with 90% of the micelles in the ideal range, while the Control formula presented only 70% of the micelles in the ideal range.

USAGE LEVEL

| PRODUCT | (%) |
|----------------------|------------|
| Primer | 0,3 to 1,0 |
| Serum | 0,3 to 0,6 |
| Cream and lotion | 0,3 to 0,8 |
| Moisturizing balm | 0,3 to 1,0 |
| Cream for eyes area | 0,3 to 1,0 |
| Lotion for eyes area | 0,3 to 1,0 |
| Emulsion for scalp | 0,3 to 0,8 |

INCI NAME
Acacia Senegal Gum
Extract, Sodium
Benzoate and
Potassium Sorbate.

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