



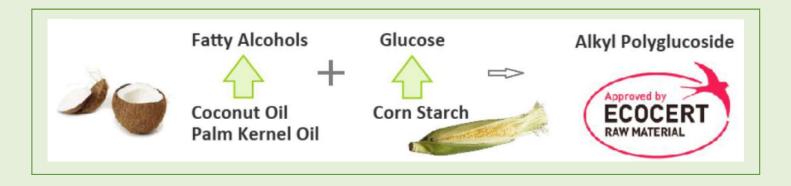
Alkyl Polyglucoside (APG) is a nonionic surfactant.

#### Chemical Structure

R is based on natural, renewable resources X= DP DP= 1.3 –1.7

Production flow chart

APG is made from natural fatty alcohols and glucose derived from renewable plants.



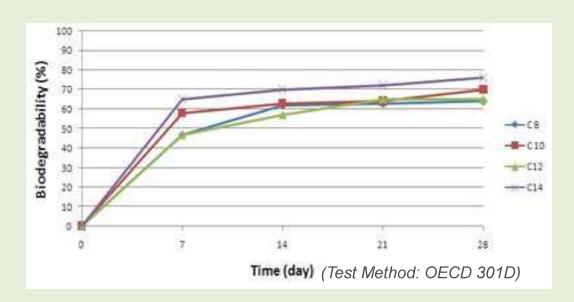
Green, Natural, Mild, Safe



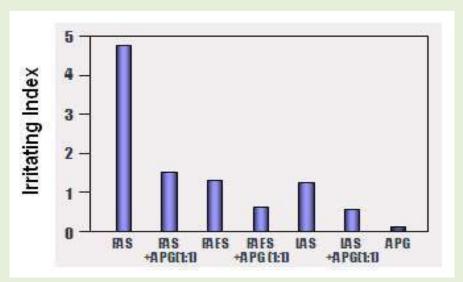
## Properties

- √ Excellent cleaning performance
- ✓ Superior wetting property, low surface tension
- ✓ Alkaline resistance
- ✓ Extremely mild, very low skin irritating
- ✓ Good compatibility with all other types of surfactants
- √ Natural origin, Readily biodegradable

## Biodegradation



### Skin irritation



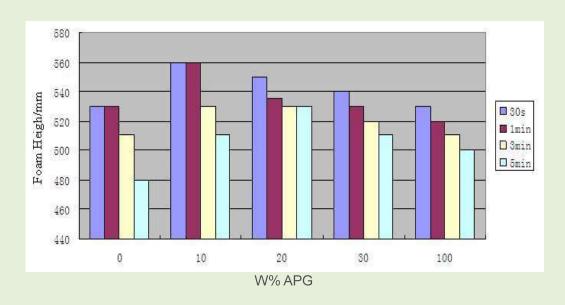
(Test Method: OECD 404)

APG show excellent biodegradation.

APG show lower irritating.

## Synergistic effects

Synergistic effects of APG and K12(Sodium Lauryl Sulfate)



APG shows excellent compatibility and foamability.

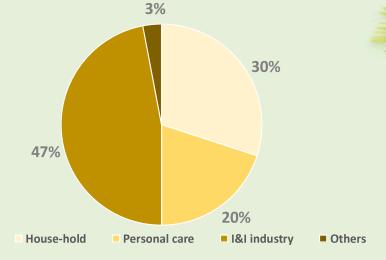
Applications

#### **Personal Care**

- ShampooBubble bath
  - Cleaning lotion
  - Cosmetic emulsifiers
  - Facial cleaning

### House-hold

- Dishwashing detergents
- Laundry detergents
- Adjuvants for textile
- Carpet spot remover



## I&I industry

- I&I Industrial cleaners
- Hard surface cleaners
- Car wash

