Solvay is innovating by finding a new way of manufacturing ethoxylated surfactants to reduce the carbon footprint of this product by using ethylene oxide made from sugar cane instead of petrochemical feedstock.

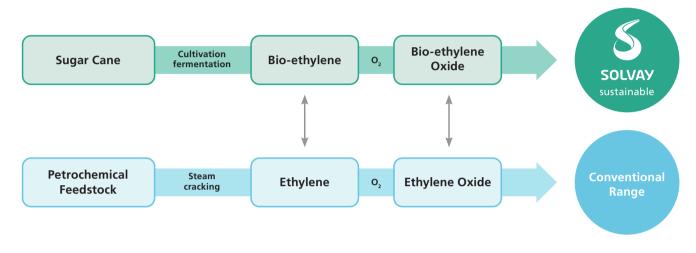
The Bio-ethylene is produced by fermentation and oxidation of the sugar cane.

Content

- 100% Bio-based Surfactants
- Key Benefits of Sustainable Ethoxylated Range Naturalness & Performance
- Available Grades
- Rhodasurf® 6NAT MB
- Rhodapex® ESB-70 NAT MB

100% Bio-based Surfactants

- EO 100% Renewable, 100% Bio-based coming from sugar cane, GMO-free
- Reduces reliance on fossil fuel feedstocks
- Performance identical to petro-based options
- Renewable Carbon Index (RCI) improvement
- Significant reduction of carbon footprint



Key Benefits of Sustainable Ethoxylated Range Naturalness & Performance

Formulator

- Reduces reliance on fossil fuel feedstocks
- Performance identical to petro-based options

Enviroment

- 100% Renewable surfactants
- Reduction of carbon footprint

Consumer • 100% Bio-based product for responsible

consumption and better sustainable choice

Available Grades

Greenhouse Gas Emissions

Rhodasurf® 6NAT MB **INCI: Laureth-6**

using only vegetable sources and having 100 % renewable carbon. Rhodasurf® 6NAT MB is used in applications such as laundry detergents as excellent emulsfiers with good detergency and wetting properties but with an outstanding sustainable profile. Reducing the Green House Gas Emission by Using Rhodasurf® 6NAT MB

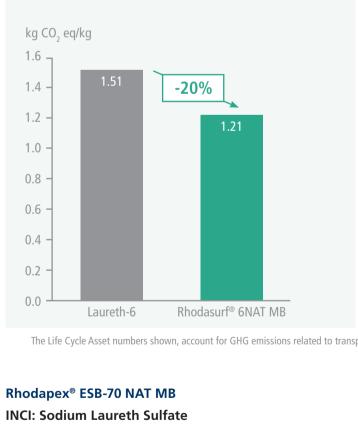
Plant based 6EO lauryl alcohol surfactants that is produced

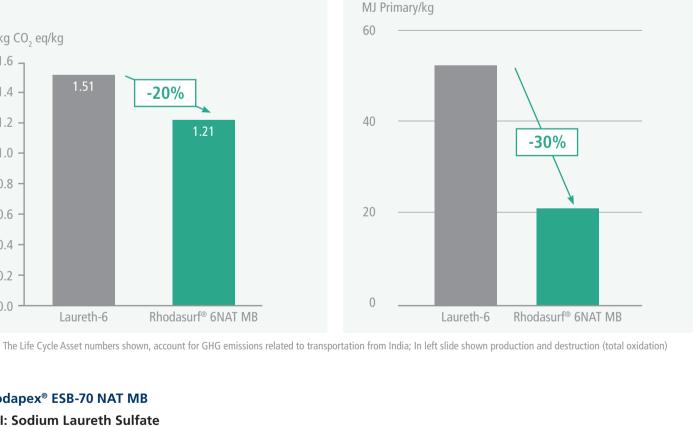
Preservative free

Liquid

- Ecocert conformation for detergent

Non-renewable Resource Consumption





2 EO sodium laureth sulfate that is made from 100% renewable carbon. Ethylen oxide derived from sugar cane and fatty alcohol from certified Palm Kern Oil (MB Grade).

Positive Life Cycle Impact

Viscous paste

• Preservative free

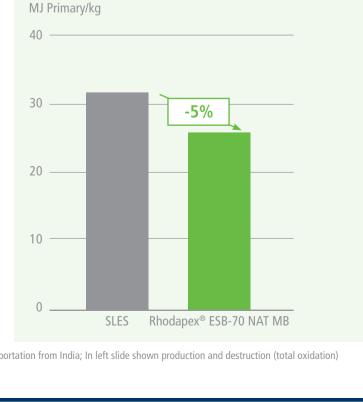
Non-renewable Resource Consumption

Ecocert for detergent, compatible with Ecolabel

kg CO, eq/kg

Greenhouse Gas Emissions





The Life Cycle Asset numbers shown, account for GHG emissions related to transportation from India; In left slide shown production and destruction (total oxidation)



HARKE Chemicals GmbH Xantener Str. 1 45479 Mülheim an der Ruhr Germany

Managing Directors:

Jens Prinssen Yuvaraj Govinda Pillai

Imprint

Picture credits

[©]iStockphoto / Artist's name: lzf