

Technical Guide

BioLoop Surfactants

Introducing a new range of bio-based surfactants containing components that are from renewable sources. Unlike many bio-based surfactants, these products offer excellent surfactant properties and can be used as green alternatives to conventional synthetic nonionics, such as alcohol ethoxylates. The BioLoop has two soybean hydrophobic sections that are linked by a hydrophilic loop of polyethylene glycol derived from molasses. Unlike palm-based surfactants, the BioLoops contain soybean oil which is considered to be a great sustainable source.

PG (Pure Grade) v Normal Grade

The normal grade of BioLoop surfactants are aimed at standard industrial-based processes in which clarity in an aqueous medium isn't a necessity. The PG versions which denotes our purified grades are for industries in which clarity in aqueous mediums is essential.

Typical Applications

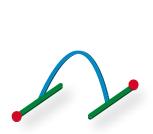
Normal Grades

Oils and Lubricants
Emulsion Polymers
Agrochemical additives
Textiles auxiliaries
Hand and Floor Wipes

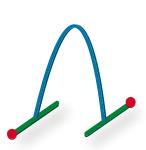
PG Versions

Personal Care Cosmetics Household products

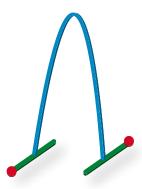
Product Range



BioLoop 56L-PG



BioLoop 68L-PG



BioLoop 84L BioLoop 84L-PG

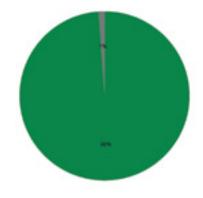
Key Features

- Based on BioLoop technology
- Bio-based
- Ultra-Mild
- No skin or eye irritancy
- Low ecotoxicity
- Biodegradable
- Good detergency
- A green alternative to alcohol ethoxylates



Radiocarbon (C14) dating

Result: 99.36% Bio-based carbon



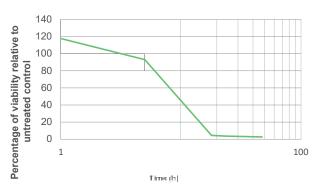
Mildness Studies

The ET 50 test method

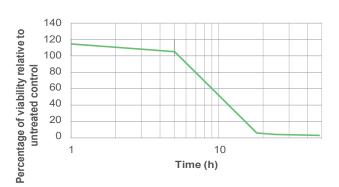
The in vitro test was successfully adapted from the widely used ET50 method using human reconstructed skin models. Formulations are applied to the skin model surface for defined time points, followed by determination of any damage to the skin cells, using an indicator of intracellular metabolism. Test results are expressed as the ET50 value - the time taken for viability to drop to 50% of the untreated control.

The results indicate that the BioLoops, in this instance BioLoop 84L, gave a result to show extreme mildness.

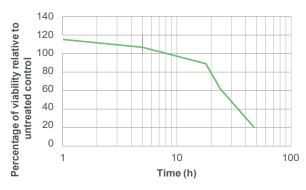
ET₅₀ determination of 0.3% SLS Result 9.37 (h)



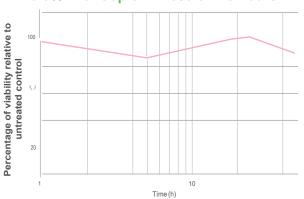
ET₅₀ determination of 0.3% SLES Result 10.25 (h)



ET₅₀ determination of 0.3% CAPB Result 29.4 (h)



ET₅₀ determination of 0.3% BioLoop 84L Result > 48 hours



Foaming Profile

Test method

A 0.1% solution is prepared and aerated for 30 seconds and then stopped. The degree of foaming is assessed after 60 seconds: A foaming classification was then defined using comparative foaming date generated across the whole of our product range.



Classed as extreme low foam

BioLoop 56L type:





BioLoop 84L type:

Classed as medium foam

All information, recommendations and suggestions appearing in the literature concerning the use of the product are based upon tests and data believed to be reliable. However it is the users responsibility to determine the suitability for their own use of the products described here. For non English datasheets translation has been carried out using translation software, Lankem accepts no liability due to errors that occur during translation. Typical properties are based on our own measurements and do not constitute part of the sales specification