LOCUS
Ingredients

amphi®

"Performance-Driven, Sustainable Solutions"

MADE IN USA

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 100%

Amphi® Sophorolipids

High-activity, multifunctional biosurfactants for use in textile and leather applications.

| **Class** | Sophorolipids |

TSCA Certified*

NATURAL
Vegan, non-GMO and USDA certified as 100% biobased

SUSTAINABLE
Readily biodegradable with industry-low toxicity
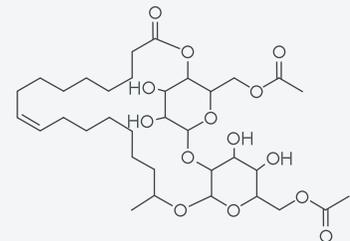
GENTLE
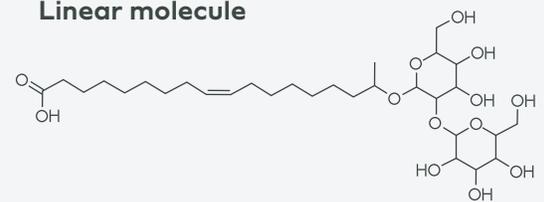Safe and mild at use level without sacrificing performance

MULTIFUNCTIONAL
Non-ionic and anionic uses, can act as primary or secondary surfactants

Lactonic molecule

Linear molecule

UNMATCHED
in **Performance** and **Sustainability**

- ✓ High activity levels
- ✓ Replace petrochemical surfactants
- ✓ Higher efficacy
- ✓ Lower usage rates
- ✓ Less water used in manufacturing
- ✓ Low carbon footprint

FREE from

- ⊗ Palm oil
- ⊗ 1, 4-Dioxane
- ⊗ Ethylene oxide
- ⊗ Formaldehyde
- ⊗ Proposition 65 chemicals

*Amphi® CL & CH TSCA pending

Applications

Amphi® are versatile solutions with unique properties:

- ✓ **Wide HLB 6–12**
- ✓ **Surface tension reduction**
- ✓ **Low CMC**
- ✓ **Small micelle size**
- ✓ **Non-ionic and anionic character**

In formulations, Amphi® enhances performance by acting as a:

WETTING
Promotes excellent spreading through contact angle reduction and a low CMC for fiber, yarn, fabric, and leather

EMULSIFIER
Low HLB and High HLB allows for matched-pair blending in spin finishes

DISPERANT
Supports small particle size improving delivery of dyes and auxiliaries

CLEANSING
Strong solvency and detergency properties for removal of process materials

Formulating the Future:

Effective date: January 9, 2023

Parameter	Test	Amphi® M	Amphi® CL	Amphi® CH
Appearance	QC 017	Translucent to clear, amber liquid	Translucent to clear, amber liquid	Translucent to clear, amber liquid
Odor	QC 016	Odorless to slight acidic or sweet smell	Odorless to slight acidic or sweet smell	Odorless to slight acidic or sweet smell
Total sophorolipid content (wt%)	QC 023	≥50	≥50	≥50
Residual oleochemicals (wt%)	AC 002	≤5	≤5	≤5
pH at 0.1% in DI water	QC 005	4.0-5.5	4.0-5.0	4.5-5.5

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V1.3