



Suga[®] Boost 030

Naturally-Derived High Performance Degreaser



**Winner of 2021 EPA
Green Chemistry
Challenge Award**



Powerful, Natural

Powerful performance,
Naturally-derived,
EO-free, 1,4-Dioxane-free with low irritation

Patent Pending

Powerful, Natural Performance.

Suga®Boost 030 is a naturally-derived high performance degreaser suitable for food and industrial degreasing. It outperforms traditional surfactants such as DDBSA, SLES, and NP-9 on hard surfaces in removing food soils, animal grease, protein soil, and industrial lubricants.

It helps boost performance in green cleaning. Suga®Boost 030 has mild characteristics without Proposition 65 concerns in comparison to sulfates, alcohol alkoxyates, Coco DEA, and betaines.

Benefits

- Replacing traditional surfactants in formulation helps enhance performance in household and industrial degreasing
- Based on patent-pending technologies in synergy of naturally-derived components
- Mid-low foam
- Fast wetting
- Good emulsifier with low critical micelle concentration
- Compatible with majority of surfactants
- Mild to eyes, non-irritating to skin at use level
- EO/PO Free, Non VOCs
- Free of Prop 65 components (1,4-Dioxane, DEA, DCA)

Applications

Suga®Boost 030 may be used in the development of degreasers and cleaners to meet demands for high-performance green formulations such as:

Suga®Boost 030

- Hand and auto dish
- Food processing equipment
- Hard surface degreasing
- Pot and pans
- Carpet and laundry spot treatment
- Grill and smokehouse
- Toilet bowl cleaning
- Floor and tile cleaning
- Hospital and senior houses
- Hospitality services
- Machinery, metal and parts cleaning

DESCRIPTION Functionalized Alkyl Polyglucoside

LISTINGS US (TSCA), Canada (NDSL), EU (REACH)

SPECIFICATIONS

Appearance (@ 25°C)	Clear Liquid
pH (10% aqueous)	6.0 – 8.0
Color Gardner '98	4 Max.
% Solids	40.0 – 42.5

WETTING AND FOAM PERFORMANCE

Draves Wetting, 1% Active, secs	5.8
Ross-Miles Foam, 1% Active	
Immediate	125
1 Minute	115
5 Minutes	110
Surface Tension	
1.00%	31.07
0.10%	31.53
CMC, %	0.005

Environment

BIODEGRADATION

Suga®Boost 030 is ultimately biodegradable per OECD 301 methods. Sample shows 89.3% biodegradable in 28 days, exceeding 60% biodegradability requirement.



BiopREFERRED Rating of **95**

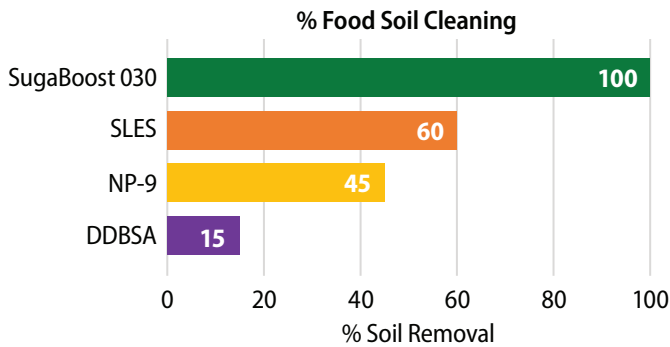


Performance

The following data demonstrates superior cleaning performance of Suga®Boost 030 on tenacious soils against well-known surfactants and commercial detergent.

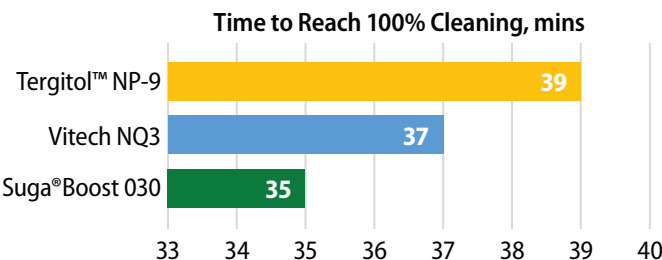
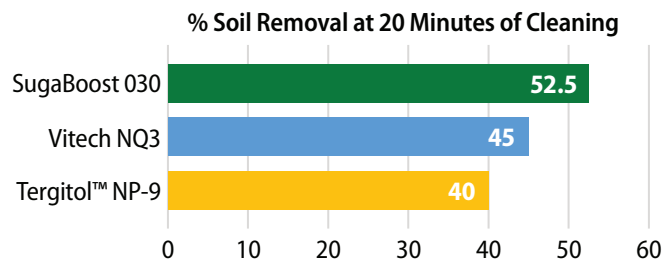
Food Soil Cleaning

Greasy Soil: Lard, egg powder, corn oil, red dye
 Testing method: Immersion cleaning
 Test temperature: Room temperature
 Test formulation: Water (q.s.) Phosphoric Acid (0.006%)
 IPA (0.03%), EDTA, 40% (0.07%),
 Active surfactant (0.0625%)



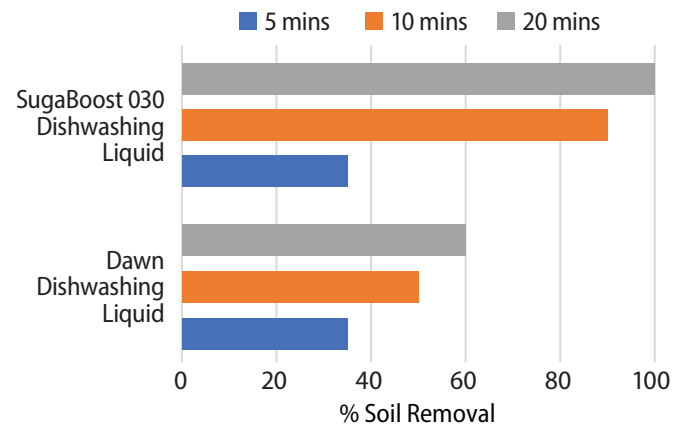
Industrial Degreasing

Greasy Soil: Engine oil / Lithium grease
 Testing method: Immersion cleaning
 Test temperature: Room temperature
 Test formulation: Water (q.s.), Sodium Metasilicate (3.0%), Sodium Gluconate (2.0%), EDTA, 40% (1.0%), KOH, 45% (1.0%), Active surfactant (5.0%)



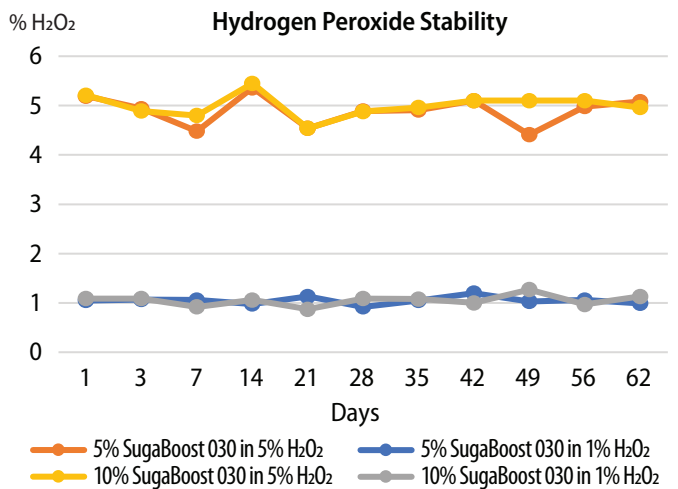
Comparison in Dish Cleaning with Dawn® Dish Soap

Greasy Soil: Lard, egg powder, vegetable oil, dye
 Testing method: Immersion cleaning
 Test formulation: 0.0375% isopropanol, 0.0075% phosphoric acid, 0.09% EDTA, 0.27% active SugaBoost 030
 Reference: Dawn® Dishwashing Liquid at 1.5% by solid



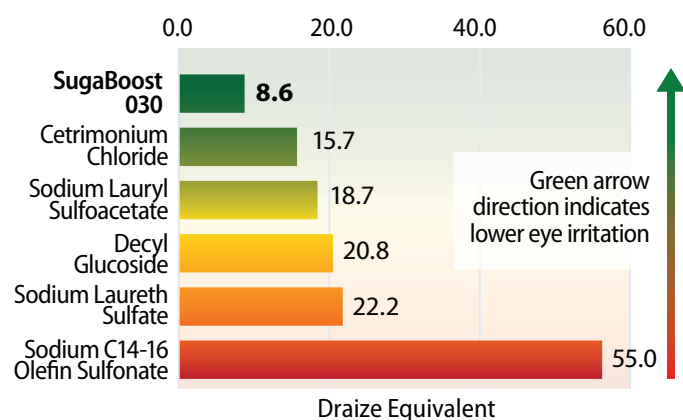
Hydrogen Peroxide Stability

Suga®Boost 030 is tested stable in hydrogen peroxide solutions, enabling formulators to develop greener cleaning products with extra biting power from peroxide in many applications, ranging from disinfecting to cleaning tough-to-clean stains on carpet, fabric, and hard surfaces.



IRRITATION STUDIES

The following data correlates to the OECD TG 405 Acute Eye Irritation/Corrosion (Draize) results of products that represent a variety of irritants. Tests are globally approved, completely cruelty-free and mathematically correlated to the Draize equivalent score.



0.0 – 0.5 / Non-irritating	25.1 – 50.0 / Moderately irritating
0.6 – 2.5 / Practically non-irritating	50.1 – 80.0 / Severely irritating
2.6 – 15.0 / Minimally irritating	80.1 – 100.0 / Extremely irritating
15.1 – 25.0 / Mildly irritating	100.1 – 110 / Maximally irritating

OTHER TOXICITY

Acute Skin Irritation: 48 Hour Occlusive skin patch test: On human volunteers - 53 Test Subjects: no visible skin reaction, no potential for dermal irritation.

Antimicrobial

Suga®Boost 030 can be used to reduce or eliminate the use of classical preservatives to achieve self-preservation strategies with improved skin health benefits. Its performance is not adversely affected by solution pH, amphoteric or nonionic surfactants, or typical preservative deactivators.

Organism	ATCC	1.5% (mm)	3.0% (mm)
Pseudomonas aeruginosa	9027	10.0	10.0
Staphylococcus aureus	6538	16.5	23.2
Escherichia coli	8739	10.3	10.2
Candida albicans	10231	27.2	23.2
Aspergillus brasiliensis	16404	15.8	19.5

STORAGE AND HANDLING

Suga®Boost 030 should be stored in closed containers. Shelf life is 24 months from date of manufacture. Suga®Boost 030 is shipped in 55-gallon drums, net weight 450 lbs (204.1 kg). Complete Safety Data Sheet may be downloaded at www.colonialchem.com.

Liquid Hand Dish Formulation

INGREDIENT / INCI	%
1 Water	qs to 100.00
2 Suga®Boost 030	12.0
3 Trilon® M Liquid	0.7
4 Citric Acid	0.06
5 IPA	0.3

Dilution at use: 5 – 10 : 1

Grill and Smokehouse Cleaner Formulation

INGREDIENT / INCI	%
1 Water	qs to 100.00
2 Sodium Hydroxide	2.0
3 EDTA	0.5
4 Cola®Teric AP	3.5
5 Suga®Boost 030	2.0

Dilution at use: RTU

Hard Surface Cleaner Formulation

INGREDIENT / INCI	%
1 Water	qs to 100.00
2 Suga®Boost 030	12.0
3 EDTA	0.7
4 Phosphoric Acid	0.06
5 IPA	0.3

Dilution at use: 5 – 10 : 1

Winner of 2021 EPA Green Chemistry Challenge Award



Colonial Chemical, Inc. is a winner in the 2021 EPA Green Chemistry Challenge Awards Program, in the focus area of The Design of Greener Chemicals. Colonial Chemical is recognized for developing Suga®Boost surfactant blends that use more environmentally friendly chemicals than traditional cleaning surfactants. Suga®Boost surfactants consume less energy to create, are biodegradable, and are derived from plant-based materials, with performance that demonstrates potential to replace EO-containing surfactants such as SLES and APEs. For more information, go to www.epa.gov/greenchemistry.



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