



Suga[®]Nate 160NC

100% Biobased Anionic APG Sulfonate for Oral Care Applications

INCI	Sodium Laurylglucosides Hydroxypropylsulfonate
CAS	742087-49-6
LISTINGS	USA (TSCA); EU (REACH); Canada (NDSL); Australia (AICS); New Zealand (NZIoC); Taiwan (NECI)

Suga[®]Nate 160NC is a naturally-derived, high-performance surfactant suitable for a variety of personal care formulations, including oral care. Using Suga[®]Nate 160NC, formulators can develop a high-foaming product without irritation to the oral mucosa and gingiva. In a taste test, it was found to have an agreeable taste that performs well as part of a toothpaste formulation. Suga[®]Nate 160NC is very high in natural character, very low in toxicity and extraordinarily gentle when compared to other surfactants in typical sulfate-free formulations.

BENEFITS

- 100% naturally-derived
- Zero Irritation surfactant for a wide variety of applications
- Stable in wide range of pH
- Biodegradable
- Reduces irritation of other primary surfactants
- Peroxide stable
- No added preservatives
- Superior performance over traditional surfactants

APPLICATIONS

- Dentifrice pastes and gels
- Oral rinses
- Cleansing tablets



SAFETY

Suga[®]Nate 160 NC has been tested for its oral and gingival irritation potential in vitro (MatTek EpiOral[™] & EpiGingival[™]). This data has been integrated into a wider safety assessment which concluded that Suga[®]Nate 160NC has a safety profile that is favorable to its use in oral care products.

MatTek EpiGingival

- 4% as supplied (1.6% solids)
 - ET50 could not be determined (>18 hours /1080 min)
- 100% as supplied (40% solids)
 - ET50 could not be determined (>18 hours /1080 min)
- Benchmark SLS (0.6% solids)
 - ET50 418.2min

MatTek EpiOral

- 4% as supplied (1.6% solids)
 - ET50 could not be determined (>120 min)
- 100% as supplied (40% solids)
 - ET50 could not be determined (>120 min)

TYPICAL PROPERTIES / STRUCTURE

Appearance	Clear liquid	
pH (10% aqueous)	6.3	
Solids, %	40.0	
Odor	Mild, Fatty Alcohol	
Color, Gardner	< 1	
Viscosity, cP	7,500	
Ross-Miles Foam Height (1% active solution, 25° C, DI water), mm	Immediate	155
	1 minute	152
	5 minutes	150
Draves Wetting, sec.	Immediate	7.2

Gentle Toothpaste

#4048

This sulfate-free toothpaste features Suga®Nate 160NC for cleansing with exceptionally low irritation potential and neutral flavor profile. With its exceptionally low irritation potential, supported by results using in-vitro gingival and mucosal models, Suga®Nate 160NC is the ideal choice for next-generation toothpastes and other oral care products.

TRADE NAME / INCI NAME	%
1 Water	13.10
2 Sorbitol 70%	25.00
3 Veegum® D / Magnesium Aluminum Silicate	1.50
4 Glycerin	10.00
5 Aqualon™ CMC-7MF / Sodium Carboxymethylcellulose	1.00
6 Calcium Carbonate USP31 Powder	44.00
7 Natural Mint Extract (Flavoring)	1.00
8 Sodium Saccharine	0.20
9 Sodium Benzoate	0.20
10 Suga®Nate 160NC / Sodium Laurylglucosides Hydroxypropylsulfonate	4.00

Procedure:

Combine ingredients 1 – 3 and mix until uniform. In a separate vessel, combine ingredients 4 – 5 as a premix. Add the premix to the primary vessel and mix for 30 minute or until completely hydrated. Slowly add ingredient 6 and continue mixing until well dispersed. Add ingredients 7 – 10. Continue mixing until uniform.

Typical Properties:

Appearance	Opaque, white paste
pH (10%)	7.5 – 8.0
Viscosity (T-F, 1.5 rpm)	> 600,000 cP

Patent Pending

GMP & QUALITY

Colonial Chemical is certified to ISO 22716:2007, which is the international standard for the Good Manufacturing Practices (GMP) for cosmetics as well as ISO 9001:2015, the international standard that specifies requirements for a quality management system (QMS).

REGULATORY COMPLIANCE

Suga®Nate 160NC is a cosmetic ingredient that complies with international regulations including the US Federal Food, Drug & Cosmetic Act (FD&C Act) and the EU Cosmetics Regulation EC 1223/2009. Colonial Chemical can provide a safety summary upon request.

ADDITIONAL NGO LISTINGS



NSF®/ANSI 305-2012

USDA Biopreferred Product

Readily biodegradable per OECD 301 methods. This product meets the criteria for a surfactant under the EU Detergents Regulation (EC) 648/2004.

Suga®Nate 160NC is “Derived Natural” with a Natural Origin Index of 1.00 in accordance with ISO 16128 guideline.



STORAGE / HANDLING

Below room temperature Suga®Nate 160NC can exhibit cloudiness, crystallization, or stratification associated with its Krafft Temperature. If this occurs, warm gently to 35-40C to clear before use. Shipped in 55 gallon poly drums (net weight 460 lb/208.6 kg). Typical shelf life is 24 months from date of manufacture. Safety Data Sheet may be found at www.colonialchem.com



Colonial Chemical

Innovative Specialty Surfactants

www.colonialchem.com