



Sodium Laureth Sulfate (SLES)

Technical Datasheet

1. Technical Datasheet

Property	Specification
Physical Properties	
Appearance	Colourless to Off-White liquid; solid needles; flakes; powder
Physical Form	Powder
Odor	Nearly odorless
Molecular Weight (g/mol)	420.5
Density or Specific Gravity	1.04 g/cm ³ at 20°C
Viscosity	25000mPa.s. (25°C)
pH (if aqueous solution)	7.0 - 8.5 (10% aqueous solution)
HLB Value	40
Chemical Properties	
Incompatibilities	Strong oxidizers and acids
Hazardous Reactions	Releases toxic sulfur oxides when heated.
Thermal Properties	
Melting Point	10-15 °C
Boiling Point	>100°C

2. Processing Methods



Shampoo

Optimize SLES concentration for effective cleansing while minimizing irritation, and to include moisturizing agents to offset potential dryness and enhance scalp comfort. Add it slowly under gentle stirring to minimize foam generation. Maintain formulation pH between 5.5-6.5 for scalp compatibility and stability.

Key Ingredients	Indicative Dosage (% w/w)
Sodium Lauryl Ether Sulfate (SLES, 70%)	8.00%
Cocamidopropyl Betaine	5.00%
Glycerin	3.00%
Citric Acid (Anhydrous)	0.50%
Phenoxyethanol (Preservative)	0.50%
Fragrance	0.50%
Demineralized Water	82.50%

Body Wash

Always combine SLES with a milder co-surfactant like Cocamidopropyl Betaine (CAPB) to reduce skin irritation and boost foam quality. Add slowly under gentle stirring to avoid excessive foaming. Adjust pH to 5.0-5.5 for skin compatibility and optimal product performance.

Key Ingredients	Indicative Dosage (% w/w)
Sodium Lauryl Ether Sulfate (SLES, 70%)	10.00%
Cocamidopropyl Betaine	5.00%
Glycerin	3.00%
Sodium Chloride	1.00%
Preservative (e.g., Phenoxyethanol)	0.50%
Fragrance	0.50%
Citric Acid (to adjust pH)	0.50%
Demineralized Water	79.50%



Laundry Detergent Liquid

In detergent production, pre-dilute Sodium Lauryl Ether Sulfate (SLES) with deionized water before adding to the batch to prevent gel formation. Add it slowly under gentle stirring to maintain smooth consistency and avoid air entrapment.

Key Ingredients	Indicative Dosage (% w/w)
Sodium Lauryl Ether Sulfate (SLES)	9-10%
LABSA (96%)	3-6.2%
Caustic soda	0.2-0.83%
CDEA (70%)	1-2%
AEO-9	1-4%
EDTA-2Na	0.2-0.5%
Deionized water,	50-60%
Fragrance, Dye, Preservatives, Salt (NaCl)	

Liquid Soap

Pre-dilute SLES (70%) with deionized water to ease incorporation and reduce foaming during mixing. In liquid soap production, add Sodium Lauryl Ether Sulfate (SLES) slowly to the water phase under gentle stirring to avoid excessive foaming. Combine with mild co-surfactants (e.g., CAPB) to enhance foam and skin feel.

Key Ingredients	Indicative Dosage (% w/w)
Sodium Laureth Sulfate (SLES 70%)	5%
Sodium Lauryl Sulfate (SLS 92%)	1.5%
Cocamidopropyl Betaine	5%
Cocamide DEA (CDEA)	1%
Glycerin	1%
EDTA-2Na	0.1%
Salt	2%
Deionized Water	70-80%
Pigment	

3. Dosing by Application

Products	Authorized dosage
Shampoos	10-25%
Liquid Soaps	5-15%



Products	Authorized dosage
Skin Cleansers	1-5%

4. Grade Comparison Summary

Parameter	Solid Grade (Needle/Flake)
Common EO Variants	Typically 2 EO
Active Matter (%)	≥95% (dry basis)
Physical Form	Solid flakes or needles
Appearance	White solid
Viscosity (25°C)	Solid
Typical Applications	Soaps, detergent powders, bar bases

The information and data contained herein are believed to be accurate but may not be all inclusive and should only be used as a guide. The information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the product for his particular use and on condition that they assume the risk of the use thereof.

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