



Hair care  
 Skin care  
 Sun care  
 Oral care  
 Anti-microbials  
 Preservatives  
 Thickeners &  
 Conditioners  
 Natural extracts

Ayurveda (*aya* meaning “Life” and *veda* meaning “Knowledge”) products have been used throughout India for over 5,000 years. Nisarg manufacture extracts that bring together knowledge and innovation to deliver natural products with ultra-high purity.

Nisarg Soapnut Extract (*sapindus mukurossi*) contains high levels of natural saponins. These saponins have detergent / surfactant properties, as they contain both water soluble and fat soluble components.

Soapnut has been used as a washing detergent for thousands of years in Asia and Native America and is a popular ingredient in Ayurvedic shampoos and cleansers. Aqueous extraction is commonly used to produce soapnut powder; this type of extraction process results in a brown powder which can significantly affect the colour of finished formulations.

Nisarg have developed a unique extraction process. This process removes a high level of the dark colouring species, without reducing the water soluble saponins. The resulting soapnut powder has a much lower residual colour than aqueous extracted material, whilst still maintaining its surfactant properties.

Nisarg soapnut may be used as a natural replacement for commonly used synthetic surfactants such as SLES and SLS.

Soapnut can be used in shower foams, shampoos, toothpastes and hair colourants and with a pH in line with skin it can be used to avoid the irritation and dryness associated with many alkaline synthetic surfactants.

The anti-fungal and antibacterial properties of saponins are also important in cosmetic applications, in addition to their emollient effects.

## Specification

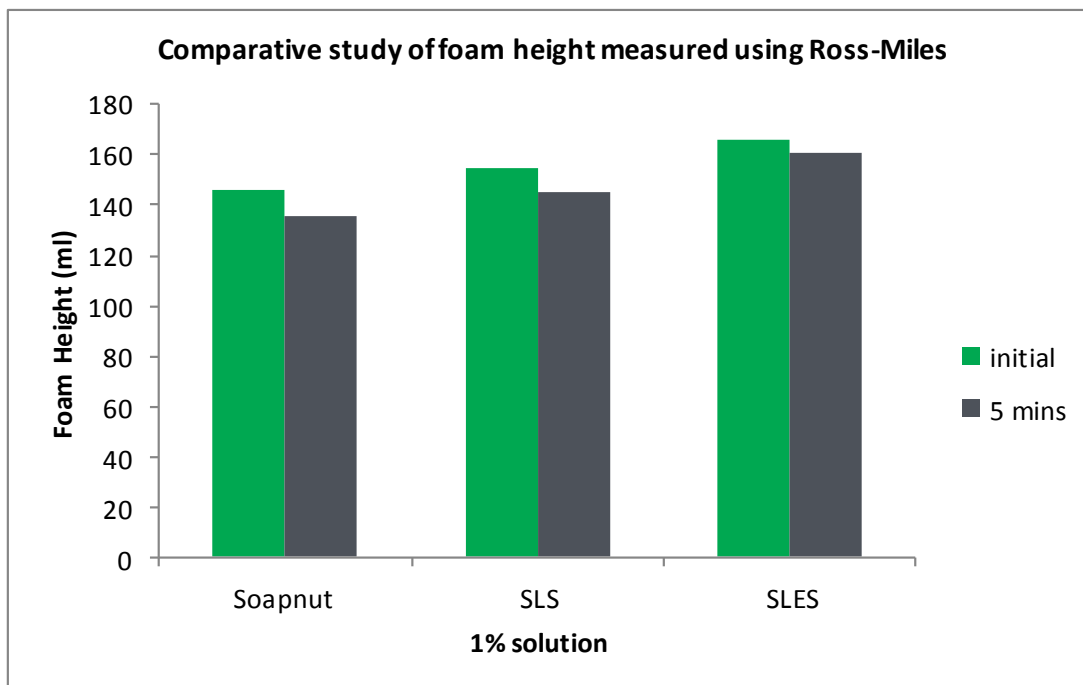
|                      |  |
|----------------------|--|
| INCI name :          | Sapindus Mukurossi<br>Fruit Extract                      |
| Saponin level:       | > 30%  |
| pH (1% in water) :   | 4.5—5.5  |
| Product appearance : | Off-white cream to<br>light beige free<br>flowing powder |
| Water Solubility:    | > 95(% w/v)  |

### Foam Generation Tests

The Ross-Miles method for measuring foam height was used to compare 1% solutions of Soapnut, Sodium Laureth Sulfate (SLES) and Sodium Lauryl Sulfate (SLS).

The below chart shows initial foam height and height remaining after 5 minutes. The results show that foam generated using soapnut is almost equal to that generated by SLES and SLS. Foam height (foam stability) after 5 minutes is also comparable.

Overall soapnut foam generation and stability compared favourable to industry standard synthetic surfactants.



|                      |                                  |
|----------------------|----------------------------------|
| Plant name :         | Sapindus Mukurossi               |
| Part of fruit used : | Outer shell                      |
| Family name :        | Sapindaceae                      |
| Habitat :            | Lower forests of India and Nepal |
| Common name :        | Reetha or Soapnut                |

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