



## ELRASA - BHT™ (Butylated Hydroxy Toluene (BHT))

### Technical Datasheet

#### 1. Technical Datasheet

| Property                    | Specification                                    |
|-----------------------------|--------------------------------------------------|
| <b>Physical Properties</b>  |                                                  |
| Appearance                  | White crystalline powder or flakes               |
| Physical Form               | Powder                                           |
| Odor                        | Very faint, musty, occasional cresylic-type odor |
| Molecular Weight (g/mol)    | 220.35                                           |
| Density or Specific Gravity | 1.048 g/cm <sup>3</sup> at 68 °F                 |
| Viscosity                   | 3.47 centistokes at 0 °C                         |
| Refractive Index            | 1.4859 at 75 °C/D                                |
| <b>Chemical Properties</b>  |                                                  |
| Water Solubility            | less than 1 mg/mL at 68 °F                       |
| <b>Thermal Properties</b>   |                                                  |
| Melting Point               | 156 to 160 °F                                    |
| Boiling Point               | 509 °F at 760 mmHg                               |
| Flash Point                 | 260 °F                                           |

#### 2. Processing Methods



Cosmetic cream

Add Butylated Hydroxy Toluene (BHT) during the oil phase of cream production, as it is oil-soluble. Incorporate it at low concentrations (typically 0.01-0.1%), and ensure even dispersion by mixing thoroughly before emulsification to enhance antioxidant protection and product stability.

| Key Ingredients                 | Indicative Dosage (% w/w) |
|---------------------------------|---------------------------|
| Sunflower Oil                   | 25%                       |
| Beeswax                         | 15%                       |
| Candelilla Wax                  | 5%                        |
| Shea Butter                     | 10%                       |
| Coconut Oil                     | 15%                       |
| Joboba Oil                      | 5%                        |
| Zinc Oxide                      | 20%                       |
| Butylated Hydroxy Toluene (BHT) | 0.05%                     |
| Vitamin E Acetate               | 1%                        |
| Tocopherol                      | 0.5%                      |
| Deionized Water                 | 2.95%                     |
| Fragrance (optional)            | 0.5%                      |

Hair Shampoo

Add Butylated Hydroxy Toluene (BHT) to the oil or surfactant phase of the shampoo formulation, as it is lipid-soluble. Use at low levels (0.01-0.1%), ensuring uniform distribution to prevent oxidation of oils, fragrances, and other sensitive ingredients.

| Key Ingredients                                                       | Indicative Dosage (% w/w) |
|-----------------------------------------------------------------------|---------------------------|
| Primary Surfactants                                                   | 8-12%                     |
| Secondary Surfactants                                                 | 2-5%                      |
| Foaming Agents                                                        | 2-8%                      |
| Butylated Hydroxy Toluene                                             | 0.01-0.1%                 |
| Water                                                                 | 70-80%                    |
| Emollients, Humectants, Preservatives, Thickeners, pH Adjusters, etc. |                           |



### Makeup foundation

In makeup foundation formulation, add Butylated Hydroxy Toluene (BHT) to the oil phase during heating to ensure it fully dissolves and effectively protects oils from oxidation.

| Key Ingredients                 | Indicative Dosage (% w/w) |
|---------------------------------|---------------------------|
| Water (Aqua)                    | 50%                       |
| Cyclopentasiloxane              | 10%                       |
| Dimethicone                     | 5%                        |
| Glycerin                        | 3%                        |
| Butylated Hydroxy Toluene (BHT) | 0.1%                      |
| Butylene Glycol                 | 2%                        |
| Sodium Chloride                 | 0.5%                      |
| Titanium Dioxide                | 5%                        |
| Iron Oxides                     | 5%                        |
| Phenoxyethanol                  | 0.8%                      |
| Ethylhexylglycerin              | 0.2%                      |
| Fragrance                       |                           |

### Lip balm

In lip balm production, add Butylated Hydroxy Toluene (BHT) to the melted oil and wax phase to ensure complete dissolution and antioxidant protection.

| Key Ingredients                | Indicative Dosage (% w/w) |
|--------------------------------|---------------------------|
| Petrolatum                     | 40-50%                    |
| Paraffin Wax                   | 20%                       |
| Cera Alba (Beeswax)            | 10%                       |
| Castor Oil                     | 10%                       |
| Butylated HydroxyToluene (BHT) | 0.1%                      |
| Tocopheryl Acetate (Vitamin E) | 0.5%                      |
| Aloe Vera Extract              | 1%                        |
| Fragrance                      | 0.5%                      |

### 3. Dosing by Application



| Products                            | Authorized dosage % |
|-------------------------------------|---------------------|
| Sunscreen Lotions, Creams           | Upto 0.8%           |
| Cosmetics Skin Care Creams, Lotions | Upto 0.8%           |
| Hair Shampoo                        | 0.01-0.1%           |

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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