



## ELVISC – ZS™ (Zinc Stearate)

### Technical Datasheet

#### 1. Technical Datasheet

| Property                    | Specification                                             |
|-----------------------------|-----------------------------------------------------------|
| <b>Physical Properties</b>  |                                                           |
| Appearance                  | White, fine powder with a slight fatty odor               |
| Physical Form               | Powder                                                    |
| Odor                        | Faint odor                                                |
| Molecular Weight (g/mol)    | 632.3                                                     |
| Density or Specific Gravity | 1.1 g/cm <sup>3</sup>                                     |
| pH (if aqueous solution)    | Neutral to moistened litmus paper                         |
| pH                          | Neutral to moistened litmus paper                         |
| <b>Chemical Properties</b>  |                                                           |
| Solubility                  | Soluble in benzene; insoluble in water, alcohol and ether |
| <b>Thermal Properties</b>   |                                                           |
| Melting Point               | 266 °F                                                    |
| Flash Point                 | 530 °F                                                    |
| Autoignition Temperature    | 788 °F                                                    |

#### 2. Processing Methods



### Cosmetic cream

Add Zinc Stearate at 0.5-2% to improve cream spreadability, provide a silky, dry-touch feel, and add opacity for a more elegant visual appearance. Zinc Stearate is lipophilic—always disperse it in the oil phase before emulsification.

| Key Ingredients                     | Indicative Dosage (% w/w) |
|-------------------------------------|---------------------------|
| Deionized Water                     | 65.0%                     |
| Glycerin                            | 5.0%                      |
| Zinc Stearate                       | 0.5%                      |
| Caprylic/Capric Triglyceride        | 5.0%                      |
| Glyceryl Stearate                   | 3.0%                      |
| Cetearyl Alcohol                    | 2.0%                      |
| Shea Butter (Butyrospermum Parkii)  | 4.0%                      |
| Tocopheryl Acetate                  | 0.5%                      |
| Carbomer 940                        | 0.3%                      |
| Triethanolamine                     | 0.2%                      |
| Phenoxyethanol & Ethylhexylglycerin | 1.0%                      |
| Fragrance                           | 0.5%                      |
| Dimethicone                         | 3.0%                      |
| Sodium Stearoyl Glutamate           | 1.0%                      |
| Xanthan Gum                         | 0.5%                      |
| Citric Acid / Sodium Citrate        | 0.1%                      |



### Cosmetic makeup foundation

Add Zinc Stearate at 1-5% to improve spreadability, give a silky matte feel, and enhance pigment dispersion. It also helps reduce skin shine in oily skin types. Mix Zinc Stearate with iron oxides, titanium dioxide, and other pigments in the dry phase before dispersion. It improves adhesion to skin and color payoff in both pressed and liquid foundations.

| Key Ingredients                               | Indicative Dosage (% w/w) |
|-----------------------------------------------|---------------------------|
| Talc (Talcum Powder)                          | ~40% (balance base)       |
| Titanium Dioxide                              | 15%                       |
| Zinc Oxide                                    | 5%                        |
| Zinc Stearate                                 | 5%                        |
| Kaolin or Precipitated Chalk                  | 10%                       |
| Bismuth Oxychloride                           | 3%                        |
| Magnesium Carbonate / Magnesium Stearate      | 3%                        |
| Iron Oxides                                   | ~18%                      |
| Binding Wax or Oil (e.g., isoparaffin or wax) | ~3%                       |
| Volatile Carrier or Resin                     | ~1%                       |

### Face powder

Add Zinc Stearate at 3-10% to enhance powder compressibility (for pressed powders), improve skin adherence, and give a silky, smooth glide on application. High levels can cause dry feel, reduced payoff, or opacity issues.

| Key Ingredients                              | Indicative Dosage (% w/w) |
|----------------------------------------------|---------------------------|
| Finely divided polyethylene (binder/vehicle) | ~70%                      |
| Talc / Kaolin                                | ~6%                       |
| Titanium Dioxide                             | ~3-4%                     |
| Zinc Oxide                                   | ~5%                       |
| Zinc Stearate                                | 5%                        |
| Colorant Pigments (e.g. iron oxides, lakes)  | Balance (~10-12%)         |

## 3. Dosing by Application

| Products                  | Authorized dosage |
|---------------------------|-------------------|
| Cosmetics & Personal Care | 1-5%              |
| Paints & Coatings         | 1-5%              |



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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