

## Product Description:

- **INCI Name:** Polyoxyethylene Sorbitan Monooleate
- **CAS No:** 9005-65-6
- **Physical Properties:** Yellow, Odorless, Slightly thick Liquid
- **Country of Origin:** India
- **Certifications** Vegetable-based, Kosher, Vegan, Not Tested on Animals
- **Bulk Packaging:** 200kg drum \*4 = 800kg/pallet

## Formulation Guidelines for Polysorbate 80

Polysorbate 80 is a commonly used surfactant and emulsifier in cosmetic and personal care formulations. When using Polysorbate 80 in formulations, here are some guidelines to consider:

1. **Concentration:** The recommended usage level of Polysorbate 80 can vary depending on the desired product and its intended use. Typically, Polysorbate 80 is used at concentrations ranging from 1% to 5% in formulations.
2. **Emulsification and Stabilization:** Polysorbate 80 is known for its emulsifying and solubilizing properties. It helps to create stable oil-in-water (O/W) emulsions and improves the dispersibility of oil-based ingredients in water-based formulations. Use Polysorbate 80 in formulations such as creams, lotions, and emulsions to achieve a stable and homogenous mixture.
3. **Compatibility:** Polysorbate 80 is generally compatible with a wide range of cosmetic ingredients, including oils, fragrances, and hydrophilic active ingredients. It can work with both oil-soluble and water-soluble ingredients.
4. **Solubilization:** Polysorbate 80 can solubilize and disperse hydrophobic ingredients in water-based systems. It helps to improve the solubility and bioavailability of lipophilic active ingredients in formulations. Incorporate Polysorbate 80 when formulating products that contain essential oils, fragrances, or other oil-based actives that need to be dispersed in water.
5. **Viscosity Adjustment:** Polysorbate 80 has limited thickening properties. If you require additional viscosity or thickness in your formulation, consider combining Polysorbate 80 with suitable thickeners or rheology modifiers to achieve the desired consistency.
6. **pH Considerations:** Polysorbate 80 is effective over a wide pH range, typically between pH 3 and 9. However, for optimal performance, it is generally recommended to formulate within the pH range specified by the supplier.
7. **Regulatory Considerations:** Ensure compliance with applicable regulations and guidelines for the use of Polysorbate 80 in your specific region and industry. Familiarize yourself with relevant regulations, labeling requirements, and any restrictions or limitations on its usage.
8. **Testing and Quality Control:** Before scaling up production or launching a product containing Polysorbate 80, conduct stability testing and quality control checks to ensure the performance, stability, and safety of your formulation such as: viscosity measurements, stability tests under different conditions (temperature, pH), and microbial contamination tests.

