Product Description:

- **INCI Name:** **Xanthan Gum**
- **CAS No:** **11138-66-2**
- **Physical Properties:** **Off-white, Odorless, Fine Powder**
- **Country of Origin:** **China**
- **Certifications:** **USP, Kosher**
- **Bulk Packaging:** **25kg bags* 40 = 1000kg/pallet**

Formulation Guidelines for Xanthan Gum 80/100

Xanthan gum is a versatile ingredient commonly used in cosmetic and personal care formulations for its thickening, stabilizing, and emulsifying properties. When using xanthan gum in formulations, here are some guidelines to consider:

1. **Concentration:** The recommended usage level of xanthan gum can vary depending on the specific formulation and desired effects. Typical concentrations range from 0.1% to 2%.
2. **Dispersion:** Xanthan gum is a powder that can form lumps if added directly to water. To prevent clumping, disperse xanthan gum in a portion of the water or an aqueous solution and mix it thoroughly before adding it to the rest of the formulation.
3. **Hydration:** Xanthan gum requires hydration to fully activate its thickening properties. Allow sufficient time for hydration, usually 15 to 30 minutes, before evaluating the viscosity of the formulation. The viscosity of the solution will increase gradually as hydration progresses.
4. **Shear-Thinning:** Xanthan gum exhibits shear-thinning behavior, meaning its viscosity decreases under shear stress and recovers when the stress is removed. This property can help with easy application and spreadability of the formulation.
5. **Compatibility:** Xanthan gum is generally compatible with a wide range of cosmetic ingredients, including surfactants, oils, and water-based systems.
6. **pH Considerations:** Xanthan gum is stable in a pH range of 2 to 12, making it suitable for formulations with a broad pH spectrum. However, extreme pH levels can affect its performance, so it's important to evaluate its stability and viscosity in the desired pH range of your formulation.
7. **Stabilization and Suspension:** Xanthan gum can help stabilize emulsions and suspensions, preventing phase separation and sedimentation of particles. It is commonly used in creams, lotions, gels, and other formulations to improve stability and enhance texture.
8. **Regulatory Considerations:** Ensure compliance with applicable regulations and guidelines for the use of xanthan gum in your specific region and industry. Familiarize yourself with relevant regulations, labeling requirements, and any restrictions or limitations on its usage.
9. **Testing and Quality Control:** Before scaling up production or launching a product containing xanthan gum, 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.