**Superol K Glycerin, USP*/FCC EP**

*For excipient use only*

**CAS#** 56-81-5; **Formula**: \(\text{CH}_2\text{OHCHOHCH}_2\text{OH}\)

Superol K Glycerin is produced by refining crude glycerine in a series of purification steps. Crude glycerine is derived by cleaving the glycerine chain off of its triglyceride backbone. The diagram above shows the glycerin molecular structure. It is a clear liquid with a slightly sweet taste.

**PHYSICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent Weight</td>
<td>246</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.26</td>
</tr>
<tr>
<td>Melting Point</td>
<td>18°C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>(<del>1412\text{mPa.s} \at 20°C</del>)</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>290°C</td>
</tr>
<tr>
<td>Taste</td>
<td>Tangy sweet</td>
</tr>
</tbody>
</table>

Stable and soluble in water and miscible with ethanol, slightly soluble with acetone.

**GENERAL INFORMATION**

**Regulatory Compliance:**
- Designated as KPO (Kosher for Passover) by the Orthodox Union
- Complies with USP- United States Pharmacopeias
- Complies with FCC- Food Chemicals Codex
- Complies with IPEC- International Pharmaceutical Excipients Council
- Meets EP, European Pharmacopeia, specification

**Application Uses:**
End-use applications for Superol K Glycerin include pharmaceutical applications (for excipient use only), food and beverage ingredient, sweetener, personal care items such as tooth pastes, polyether polyols, alkyd resins, explosives, humectants, coatings, pet foods, lubricants, flexible foams, solid fuel, de-/anti-icers, and soaps.

**Derivation/Allergen/BSE & TSE/Microbial:**
Our Superol K Glycerin is produced at P&G Chemicals' Kuantan plant. It is manufactured entirely from non-GMO vegetable oils.
- No preservatives or additives are present.
- No allergens are present from the following sources: milk, egg, fish, crustacean shellfish, tree nuts, peanuts, wheat, sulfites, sesame seeds, aspartame, gluten source, monosodium glutamate, mustard seed or soybean.
- Bovine Spongiform Encephalopathy (BSE) and Transmissible Spongiform Encephalopathy (TSE) are not a concern with Superol K Glycerin.
- Our manufacturing process contains a distillation step (reaching temperatures of 300 - 345°F) which is self-sterilizing, destroying potential microbes. Moreover, glycerin contains low available moisture and has inherent antimicrobial properties as a concentrated solution.

**Shelf Life**
We expect the shelf life of Superol K, Glycerin USP/FCC to be approximately 2 years if it is kept under the recommended storage and handling conditions. If the product has not been used within 2 years, we recommend to test the product for key specifications. No specific data has been collected for the shelf life of opened containers of glycerin. Since glycerin is hygroscopic, it can be expected that moisture content would increase upon extended exposure to air.

**Storage and Handling (recommended)**
- Handling Temp Min-Max: 35-52°C (95-125°F)
- Sensitive Properties: Odor, Moisture, Color, FA&E, RCS
- Max Steam, psig: 10 psig for storage, 30 psig for railcar
- Nitrogen Blanket: YES (>1 month)
- Load out filter: 5 micron
- Rail Car or Tank Truck: Latchet, stainless, aluminum or Food Grade lining
- Agitation/Recirculation: Yes
- Storage Tank: Stainless Steel or lined with Calcite 252 or Placate 9570
- Pumps and Lines: Stainless Steel or lined with Calcite 252 or Placate 9570

**Note:** Heating should not exceed the max handling temperature of (52°C) 125°F

For further details, or samples of Superol K Glycerin and other P&G Chemicals products, visit our website: www.pgchemicals.com