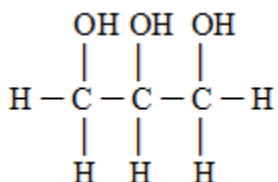


## TECHNICAL DATA SHEET

## STAR NK Glycerin 96%

### Description:



### Star NK Glycerin 96%

**CAS#** 56-81-5; **Formula:** CH<sub>2</sub>OHCHOHCH<sub>2</sub>OH

STAR NK Glycerin is produced by combining USP (for excipient use only) glycerin and purified water that meets the USP Monograph for purified water. 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

(all properties @ 22°C (72°F), 760mmHg unless stated)

Equivalent Weight: 246	Flash Point >198.9°C (390°C)
Specific Gravity: 1.26	Molecular Weight: 92
Melting Point: 18°C	
Viscosity: ~624 cp @ 20°C	
Boiling Point: 290°C	
Taste: Tangy sweet	

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

### GENERAL INFORMATION

#### Regulatory Compliance:

- Designated as NK (Non Kosher)
- Complies with IPEC- International Pharmaceutical Excipients Council

#### Application Uses:

End-use applications for STAR NK 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.

### GENERAL INFORMATION cont...

#### Derivation/Allergen/BSE & TSE/Microbial:

Our STAR NK Glycerin is produced at P&G Chemicals' approved and audited facility, but isn't necessarily owned by P&G. It is manufactured entirely from non-GMO vegetable oils and purified water that meets the USP Monograph purified water.

- 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
- 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 STAR NK Glycerin 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 re-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