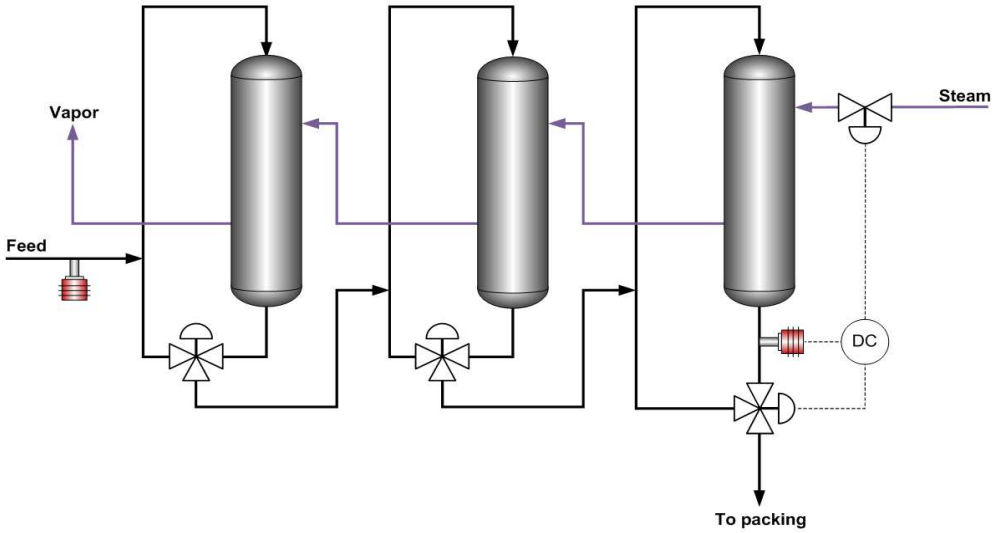
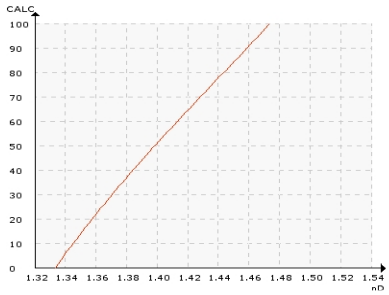


GLYCEROL (GLYCERIN)

Typical end products

Pharmaceuticals, humectants, solvent, sweetener, emulsifier, nitroglycerin, glycerol soap, moisturizer

Chemical curve: Glycerol R.I. per Conc b.w. at Ref. Temp. of 20˚C



Introduction

Glycerol (Glycerin) is a clear, nearly colorless and viscous liquid with a very sweet taste. It occurs in combination with various fatty acids (glycerides) in all animal and vegetable fats and oils.

Glycerin is produced organically by a number of different methods and by various synthesizing processes. One method is to react the propene with propenyl chloride, dichlorohydrin or epichlorohydrin to produce glycerine. Another is to use propenyl alcohol. Some glycerin is also obtained through the fermentation of sugars. Commercially glycerin is obtained as a by-product of the soap manufacturing by using saponification (oil splitting). Saponification refers to the chemical reaction between fat and lye, which results in the formation of glycerin and soap.

Installation

The K-Patents Sanitary Compact Refractometer PR-23-AC is used to measure the glycerin concentration in evaporation. The typical measurement range is 0-20% glycerin and the process temperature is about 50ºC (122ºF) before evaporation. After evaporation the typical measurement range is 80-100% glycerin and the process temperature is about 70ºC (158ºF).

Instrumentation	Description
	K-Patents Sanitary Compact Refractometer PR-23-AC for small pipe line sizes of 2.5 inch and smaller. The PR-23-AC sensor is installed in the pipe bend. It is angle mounted on the outer corner of the pipe bend directly, or by a flow cell using a 3A Sanitary clamp or Varivent® connection.
Measurement range:	Refractive Index (nD) 1.3200 – 1.5300, corresponding to 0-100 % by weight.