

The Solubility of Salicylic Acid in Alcohols at Several Temperatures

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Salicylic acid is a monohydroxybenzoic acid, a type of phenolic acid and a beta hydroxy acid. This colorless crystalline organic acid is widely used in organic synthesis and functions as a plant hormone. In addition to being a compound that is chemically similar to but not identical to the active component of aspirin(acetylsalicylic acid). Although salicylic acid is known for its ability to ease aches and pains and reduce fevers, it is probably best known for its use in anti-acne treatments. Also salicylic acid is a key ingredient in many skin-care products. And because of its effect on skin cells, salicylic acid is used in several shampoos used to treat dandruff.

The purification of salicylic acid can be performed by crystallization using various solvents and obviously crystallization relies upon the solubility. Accordingly, the solubility data is very important to purification. In this work, the solubility of salicylic acid was determined using dry weight method in various alcohols (Ethanol, 1-Propanol, 1-Butanol, 1-Pentanol, 1-Hexanol, and 1-Heptanol) at temperatures from 278.15 K up to 318.15 K at intervals of 5 degrees. The experimental solubility data were correlated by NRTL.