Secrets de la vie

SSKI Dosage

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Primary Source: Wikipedia

Potassium iodide is used medicinally in tablets, usually containing 130 mg of KI each, of which 100 mg is iodine (as iodide). Potassium iodide may also be administered as a "saturated solution of potassium iodide" which in the USP generic formulation contains 1000 mg of KI per mL of solution. This represents 333 mg KI and about 250 mg iodide (I^-) in a typical adult dose of 5 drops, assumed to be ⅓ mL. Because SSKI is a viscous liquid, it is normally assumed to contain 15 drops/milliliter, not 20 drops/milliliter as is often assumed for water. Thus, each drop of U.S.P. SSKI is assumed to contain about 50 mg iodine as iodide, I^-. Thus, two (2) drops of U.S.P. SSKI solution is equivalent to one 130 mg KI tablet (100 mg iodide).

SSKI can also be prepared by saturating water with KI. This preparation can be made without a measuring scale. KI crystals are simply added to water until no more KI will dissolve and instead sits at the bottom of the container. With pure water, the concentration of KI in the solution depends only the temperature. Potassium iodide is highly soluble in water so SSKI is a concentrated source of KI. At 20 degrees Celsius the solubility of KI is 140-148 grams per 100 grams of water. Because the volumes of KI and water are approximately additive, the resulting SSKI solution will contain about 1.40 gram (1400 mg) KI per milliliter (mL) of solution. This is 100% weight/volume of KI (one gram KI per mL solution), which is possible because SSKI is significantly more dense than pure water—about 1.72 g/mL. Because KI is about 76.4% iodide by weight, SSKI contains about 764 mg iodide per mL. This concentration of iodide allows the calculation of the iodide dose per drop, if one knows the number of drops per milliliter. The iodide dose is approximately 51 mg per drop, assuming 15 drops/mL. It is conventionally rounded to 50 mg per drop.

Since the solubility of KI in water at room temperature is about 1.40 to 1.48 grams per mL pure water, and the resulting solution has a density of about 1.72 g/mL, this process also results in a final concentration of KI of about 1000 mg KI per mL of saturated KI solution, and also contains essentially the same concentration of iodide per drop as does the U.S.P. formulation.

This method of delivering potassium iodide does not require a method to weigh out the potassium iodide so it can be used in an emergency situation.

The term SSKI is also used, especially by pharmacists, to refer to a U.S.P. pre-prepared solution formula, made by adding exactly KI to water to prepare a solution containing of 1000 mg KI per mL solution (100% wt/volume KI solution), to closely approximate the concentration of SSKI made by saturation. This is es

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Organic . However, that solution claims to contain only 72mg of iodine in a 59ml solution, which would either be 0.12% of an SSKI solution or or a convenient fib to avoid trouble with the FDA. Judging by its weight, the former is probably the case. Thus it cannot really be used as SSKI.

An alternate popular iodine compound is Lugol's solution. Lugol's solution consists of 5 g iodine (I_2) plus 10 g potassium iodide mixed with enough distilled water to make a brown solution with a total volume of 100 mL and a total iodine content of 150 mg/mL. Potassium iodide renders the elementary iodine soluble in water through the formation of the triiodide (I-3) ion.

Effective August 1, 2007, in the United States the DEA now regulates all iodine solutions containing greater than 2.2% iodine as List I precursors because they may potentially be used in the illicit production of methamphetamine. Transactions of up to one fluid ounce (30 ml) are exempt from this regulation.

So in most cases you will probably have to find a good source of food-grade potassium iodide and make your own solution.

Written by Ponderer
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