Use of Avertin (2, 2, 2-Tribromoethanol) in Mice

Purpose:

Tribromoethanol (Avertin) is an anesthetic that provides rapid induction and recovery for single use, short duration procedures in mice. Proper mixing, storing and usage are necessary to prevent adverse outcomes associated with toxicity and repeated administration.

Due to the risk of gastric adhesions and intestinal ileus, Avertin must only be used for a single, survival procedure. If a second dose is administered, the procedure must be terminal.

Mixing Instructions:

Stock Solution (1.6 g/ml):

25 g Avertin (2, 2, 2-Tribromoethanol) [Sigma-Aldrich, #T4, 840-2]  
15.5 ml tert-amyl alcohol (2-methyl-2-butanol) [Fisher, #A730-1]  
Mix at room temperature for ~12 h in a dark bottle (the bottle that the Avertin comes in works well). Stock solution can be stored at room temperature for up to one year.

Working Solution (20 mg/ml):

0.5 ml Avertin stock  
39.5 ml 0.9% saline  
Mix in an airtight dark or foil covered container and filter the solution though a 0.2 μ filter. The working solution should be prepared fresh before use or stored at 4°C in a light safe or aluminum-wrapped vial/bottle with an expiration date of 2 weeks, after which time the working solution must be discarded. Each bottle of working solution should be labeled with the concentration and date it was prepared.

Caution- Avertin is hygroscopic and subject to photo degradation. The degradation products are lethal. Never use a solution that is yellow or contains a precipitate because this indicates that oxidation has occurred.

Usage:

Dosage is 250-500 mg/kg (0.25-0.5 mg/g) given intraperitoneally (IP) in mice.