

	Guideline	Guidelines on the Use of Tribromoethanol (Avertin)	
	Approved by:	IACUC	Date: 8/25/09
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TITLE	:	Guidelines on the Use of Tribromoethanol (Avertin)
SCOPE	:	These guidelines are applicable to all research personnel intending to use Tribromoethanol (TBE) for anesthesia in mice and rats.
SOP OWNER	:	Veterinary Staff
PURPOSE	:	To provide guidelines on the use of TBE in mice and rats
EQUIPMENT	:	None
RELATED SOPS	:	POLICY – Policy on Tribromoethanol (Avertin) Use in Mice and Rats

GENERAL:	<ul style="list-style-type: none"> • Tribromoethanol (TBE) was previously manufactured specifically for use as an anesthetic by Winthrop Laboratories under the trade name Avertin®; however this product is no longer available. • The use of TBE is not recommended by the CMRC IACUC due to its potential serious side effects therefore, its use must be scientifically justified by the PI in the IACUC approved Animal Study Protocol (ASP Form 100). • Pharmaceutical grade anesthetics such as ketamine/xylazine, pentobarbital or isoflurane should be used as a substitute for TBE whenever possible. • Investigators who wish to use TBE as an anesthetic must make their own solutions in accordance with these guidelines.
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I. Guidelines

A. Preparation and storage¹⁻³

1. Make fresh solution before each use or store solution in a refrigerator or freezer at <4°C.
2. Label container with the date reconstituted, concentration and contents.
3. Store in light safe containers or wrap containers in foil as TBE degrades when exposed to light.
4. Sterile filter using a 0.22 micron filter prior to administration.
5. Check pH prior to each use and never use TBE solutions with a pH less than 5.
6. Dispose of TBE if the solution is more than 2 weeks old. Consult with the Safety Office on proper disposal.

B. Administration

1. Use the appropriate dose [250mg/kg (mice) and 300mg/kg (rats)], route [intraperitoneal (IP)] and concentration (1.25%)¹
2. Use as a single administration only. Repeat dosing (in the same or separate procedure) is associated with higher rates of morbidity and mortality in mice and rats.³
3. Limit use in rats to terminal procedures as they are more prone to developing peritonitis after intraperitoneal (IP) injections.⁴

II. References

1. Hawk et al (2005) **Formulary for Laboratory Animals** 3rd edition Blackwell publishing, Iowa
2. Lieggi, C. et al (2005) **An Evaluation of Preparation Methods and Storage Conditions of Tribromoethanol** Contemporary Topics 44(1):11-16.
3. Lieggi, C. et al (2005) **Efficacy and Safety of Stored and Newly Prepared Tribromoethanol in ICR Mice** Contemporary Topics 44(1):17-22.
4. Reid, W. et al (1999) **Pathologic Changes Associated with Use of Tribromoethanol (Avertin) in the Sprague Dawley Rat** Comparative Medicine 49(6):665-667.