

CONCEPTION TECHNOLOGIES ENHANCE OIL FOR TISSUE CULTURE

Catalog # OTC-100 (100mL)

OTC-500 (500mL)

FOR *IN VITRO* FERTILIZATION PROCEDURES

INTENDED USE

Culture medium overlaid with oil was first used over 30 years ago as a technique for the culture of mammalian embryos (Brinster, Expl Cell Res 32:205, 1963). The oil permits small volumes of medium to be used for fertilization and embryo culture. This allows insemination with a high concentration of spermatozoa in situations where a semen defect may predicate a lower fertilization rate with standard sperm numbers. Culture of multiple embryos in small volumes of medium under oil promotes the concentration of autocrine growth factors secreted by the developing embryos leading to enhanced rates of embryo development. Oil is also used to overlay drops of medium to be used in the micromanipulation procedures of ICSI and assisted hatching.

Benefits suggested by the use of an oil overlay in ART procedures include:

- * Use of small volumes of medium.
- * Minimization of CO₂ loss when cultures are removed from CO₂ incubators to air.
- * Attenuation of temperature changes when cultures are removed from incubators.
- * Prevention of water evaporation from medium leading to deleterious changes in osmolality.
- * Elimination of the requirement for high humidity in incubators.

COMPONENTS

Colorless, liquid paraffin with a specific gravity of 0.83-0.86 g/mL at 20°C. Kinematic viscosity at 37.8°C of not more than 30 cS. Each lot of oil has been extensively QC tested with our mouse zygote assay and has met or exceeded our passing specification.

STORAGE INSTRUCTIONS AND STABILITY

Store unopened containers at room temperature. Equilibrated oil may be stored in an incubator under 5-6% CO₂ at 37°C for up to two months. Do not expose to temperatures greater than 39°C. It is advisable to re-equilibrate the oil with 5% CO₂ before reusing. The expiration date is shown on the box and bottle labels.

DIRECTIONS FOR USE

Add 10% (v/v) HCO₃-buffered HTF (Catalog # EH) to the bottle contents, shake vigorously and place in a CO₂ incubator overnight. Replace the medium with fresh medium the next morning and store the bottle in a CO₂ incubator with the lid of the bottle loosely in place to allow gas equilibration. Alternatively, a 5% CO₂ in air mixture can be bubbled through the oil/medium mixture for five minutes. The bottle should be left to stand overnight in the incubator to allow the medium to separate from the oil.

PRECAUTIONS AND WARNINGS

Do not use any bottle of oil showing evidence of particulate matter or cloudiness. The oil may appear cloudy if removed from the incubator and allowed to stand at room temperature for extended periods of time. Such cloudiness usually disappears if the oil is re-equilibrated by replacing it in the incubator for several hours. To avoid problems with contamination, practice aseptic technique and discard minimal amounts of excess oil remaining in the vial.

RELATED PRODUCTS

Conception Technologies has a full line of products for the Reproductive Medical Specialist. Please call or write for specific information or to receive a copy of our current price list. For technical questions, or to reach our Customer Service Department:



**CONCEPTION
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