

## **WaterShield™** **Water Disinfection Additive**

### **Background**

Many species of bacteria, fungi or yeast can multiply in tempered water rather fast to high titers. The presence of microorganisms in water baths and incubators results in a high contamination risk for any microbiology or cell culture lab and must be avoided. Frequent water change is impractical and time consuming. WaterShield™ is intended for use in incubators, water baths and other instruments, where tempered water is used. This disinfection solution prevents growth of microorganisms effectively for several weeks. The solution contains surfactants, quaternary ammonium compounds and complexing agents to keep the water clean, free of microorganisms and avoids limescale formation. WaterShield™ also contains an indicator, which turns from light blue to colorless when the water needs to be changed.

WaterShield™ is ready to use. The ingredients of the product do not contain aldehydes or azides and do not evaporate. Therefore, WaterShield™ is safe for cells in a CO<sub>2</sub> incubator.

By following the instructions below, the treated water is safe from microbial growth of bacteria, fungi and yeast for up to 4 weeks.

### **Protection and Precaution Information**

Inhalation must be avoided. Eye contact and prolonged contact of WaterShield™ with skin may cause irritation. Therefore, safety goggles and disposable gloves should be worn while handling the reagent. In case of skin contact, promptly wash with plenty of water. In case of eye or mucosa contact, rinse the eye thoroughly with plenty of water. See further information on the safety data sheet at [www.minerva-biolabs.com](http://www.minerva-biolabs.com).

WaterShield™ is compatible with glass, ceramic, plastic, rubber, steel, precious metal and other metals.

### **Instructions for Use**

WaterShield™ is a 200-fold concentrate and is available in three different volumes (see below). Add 10 ml to 2000 ml (e.g. for CO<sub>2</sub> incubators) or 50 ml to 10 liters (e.g. for water bath) of deionized or distilled water. Fill the mixture into the water pan of the incubator or into the water bath. Replace water when the blue dye turns colorless. Store WaterShield™ at room temperature. Do not store the product near a light source, radiation, or in a modified atmosphere room.

**Composition:** Surfactants, quaternary ammonium compounds, complexing agents, water.  
All ingredients are biologically degradable.

**Catalog number:** 15-3015, 15x 10 ml, 10 ml sufficient for 2 liters of water.  
15-3020, 3x 50 ml, 50 ml sufficient for 10 liters of water.  
15-3500, 500 ml sufficient for 100 liters of water.

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## PROCEDURE - OVERVIEW



WaterShield™ 200 ×

1:200  
50 ml WaterShield™  
in 10 l H<sub>2</sub>O

1:200  
5 ml WaterShield™  
in 1 l H<sub>2</sub>O

Water Bath

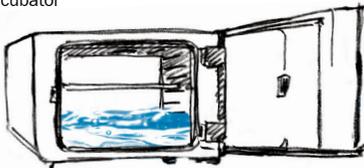


37 °C  
light blue = OK

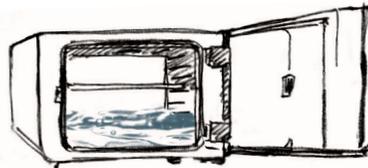


37 °C  
when indicator turns  
colourless

Incubator



37 °C, CO<sub>2</sub>  
light blue = OK



37 °C, CO<sub>2</sub>  
when indicator turns  
colourless

change water and refresh WaterShield™

**Storage**



room temperature  
protect from direct sunlight