

## WaterShield™ Water Disinfection Additive

### Background

Many species of bacteria, fungi, or yeasts can proliferate in tepid water, rapidly reaching high titers. Accordingly, water baths and humidified incubators in microbiological or cell culture labs represent potential contamination sources by offering ideal environmental conditions for microbial growth. Exceedingly frequent water changes are impractical and time consuming.

WaterShield™ is intended for use in incubators, water baths, and other instruments, where tepid water is used. This water disinfection additive effectively prevents growth of microorganisms (bacteria, fungi, and yeasts) for up to 4 weeks. The solution contains surfactants, quaternary ammonium compounds, and complexing agents to keep the water clean and free of living microorganisms and to avoid limescale formation.

WaterShield™ also contains a dye, which turns from light blue to colorless when the water needs to be changed.

WaterShield™ is a concentrated, ready-to-use solution, which does not contain aldehydes, azides or volatile ingredients. Therefore, WaterShield™ can be safely added to cell culture incubators without any risks for the cultured cells.

### Protection and Precaution Information

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, available in three different volumes (see below).

Add 10 ml to 2 liters (e.g. for CO<sub>2</sub> incubators) or 50 ml to 10 liters (e.g. for water bath) of deionized or distilled water.

Add to the water pan of the incubator or to the water bath. Replace water and WaterShield™ when the color of the solution changes (e.g. turns colorless) and in any case every 4 weeks or earlier. Store WaterShield™ at room temperature.

Do not store the product near a light source, radiation, or in a modified atmosphere room.

Use biocidal product carefully. Always read label and product instruction before use.

**Composition:** 0.9 g/l Diamine, 0.84 g/l Bardap 26, surfactants, complexing agents, water.

**Cat. No.:** 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)  
15-3050 (500 ml – sufficient for 100 liters of water)

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## PROCEDURE - OVERVIEW



WaterShield™ 200 x

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

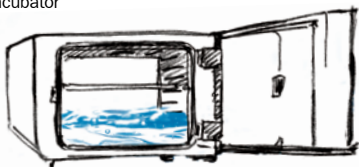


37 °C  
light blue = OK

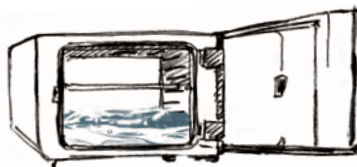


37 °C  
when indicator color  
changes

### Incubator



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



37 °C, CO<sub>2</sub>  
when indicator color  
changes

change water and refresh WaterShield™

### Storage



room temperature  
protect from direct sunlight