

## BlueWave™

Photosynthesis is a photochemical process which runs in the plants and “converts” light energy into plant nutrients – mainly glucose and eventually starch. The green pigments in plants and green algae depend on the absorption of light by chlorophyll. Cyanobacteria (often called “blue-green algae” - a misnomer because they are bacteria and not algae) contain a similar mechanism to produce their nutrients. Chlorophyll absorbs light most strongly in the violet and yellow-orange but poorly in the green portions of the electromagnetic spectrum. This is why leaves usually look green.



BlueWave™ is a mix of blue and yellow food grade colourants so that it can suppress both algae as well as cyanobacteria. This has the same effect as using a shade – it keeps light from the plants that depend on it. BlueWave™ “shades” specific sections of the light spectrum (orange and violet-blue) required by aquatic plant and algae, which inhibits photosynthesis in these plants and interrupts or slows down future development.

If the colourant is added to the water early on in the season, and shading is maintained throughout spring and summer, it may partially or completely prevent the development of aquatic growth. Water shading is especially effective in a depths greater than 60 cm. Floating plants are unaffected by this product if they have already reached the surface.

### BlueWave™ Features

- Adds a blue-greenish shade to the water to create an aesthetically pleasing appearance.
- Does not contain herbicides or algaecides.
- Can be used in swimming pools.
- Can be applied in fishing areas.

Water colourants such as BlueWave™ are designed to attenuate the colours on which chlorophyll depends, which results in the suppression of algae growth. BlueWave™ and other water colourants are concentrated dyes that can be applied by pouring into the water in recommended dosages. The quality of a water colourant depends on the dye concentration, and the purity of the dyes used, meaning whether they are food grade substances.

*Hint: When comparing different products, have a look at the MSDS to see what dye, and what concentration is used. It is likely that an inexpensive product is in fact rather pricey because it contains dye in insufficient concentration, or dyes that are not appropriate.*

# Water Colourant



## Application

For use in natural or human made closed water basins.

## Usage

Start application before beginning of growing season and continue through the growing season.

Apply according to the recommended dosage.

Calculate the water volume according to the following formula (m<sup>3</sup>):

$$\text{pond length (m)} \times \text{pond width (m)} \times \text{pond depth (m)}$$

Measure required volume of BlueWave™ and add directly into the water.

Spread evenly around shoreline or from a boat.

If possible, use a circulation pump for better distribution in water.

## Not effective

- in the flow-through water basins,
- in ponds and swimming pools where bleach is used.

## Dose and Frequency

1 l of BlueWave™ per 100 m<sup>3</sup> of pond water volume.

BlueWave™ is affected by sun light (as any other colourants or pigments) because it slowly decomposes under UV radiation. Re-apply periodically to keep the level of water shading constant.

The colour dissipation can be checked visually or analyzed with a photometer.

***Deliver water sample to our lab and we will analyze its light absorption as a service to our customers.***

## Product information

BlueWave™ sold in the packages of 4 l

Wear protective equipment and clothing prior to application.

Please read MSDS and user manual prior to product use.

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