

Cell-Hi All-in-One Nutrient

MAKING **ALGAE** EASY

WP

Varicon Aqua has more than 20 years' experience providing high quality engineering and consumable products into the algal biotechnology sector. This experience has led to the development of solutions appropriate for both **laboratory and industrial** settings.

Our Cell-Hi All-in-One nutrient range provides a simple and **highly economic** approach to algal nutrition at scale.

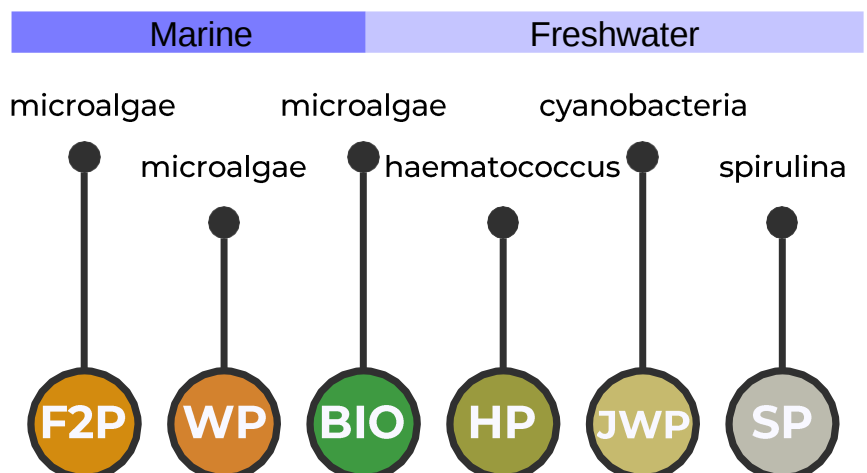
Each of the Cell-Hi All-in-One product lines is based on tried and tested industry standard formulations and available premixed as a **100% soluble** powder or as a concentrated liquid.

This unique All-in-One approach allows us to incorporate all the nutritional requirements in one single use product.

Cell-Hi WP is a Walnes saltwater specific 100% soluble All-in-One powder used extensively in marine aquaculture. Cell-Hi F2P All-in-One contains all the essential macro-nutrients, micro-nutrients and vitamins for microalgal growth. It is the only fully soluble **All-in-One** product based on Walnes' available on the market. Cell-Hi WP is a highly concentrated nutrient premix where 1.5 kg makes 10,000 litres culture medium at Walnes strength. Walnes is recommended by the UK Culture Collection for both algae and protozoa as is particularly suitable for flagellate algae such as Isochrysis and Tetraselmis.

Need nutrients for your algae culture – The Cell-Hi range has a solution for almost any marine and freshwater microalgae.

Cell-Hi Nutrient Range



Nutrient Composition.

Macro-nutrients (element)	Average Inclusion (% of Total Mass)
Biologically available Nitrogen (N)	10.86
Phosphorous (P)	1.17
Potassium (K)	0

Macro-nutrients (element)	Average Inclusion (% of Total Mass)
Iron (Fe)	0.224
Zinc (Zn)	0.0088
Copper (Cu)	0.0044
Cobalt (Co)	0.0036
Manganese (Mn)	0.082
Molybdenum (Mo)	0.0033
Boron (B)	3.10
Calcium (Ca)	0
Magnesium (Mg)	0
Chlorine (Cl)	0
Sulphur (S)	0.0037

Vitamins	Grams Per kg
Vitamin B1 (Thiamine)	0.050
Vitamin B7 (Biotin)	0.010
Vitamin B12 (Cobalamin)	0.050

Cell-Hi
All-in-One



Soluble
Nutrients
for

Marine
Microalgae

Directions for use.

- Batch Cultivation:** WP is recommended for use at concentrations between 0.15 g/L. The ideal nutrient concentration will depend on the expected/observed final yields.
- Continuous Cultivation:** WP is typically included at a rate of 0.15 g/l for continuous production (this concentration gives a 1x Walnes).
- Storage as a liquid:** In order to ensure good mixing of micronutrients when using at small scale and for ease of use a large scale, it is recommended that a high concentrate stock is produced. For WP this stock should be formulated at 1.5 Kg/10 L and used at 1 ml/L for continuous production.
- Sterilisation:** To ensure sterilisation diluted media can be passed through a 0.2 micron syringe. Autoclaving of diluted media is also possible however, this may result in some minor changes to chemical composition.