



## **Certificate of Analysis**

Analysis of a submitted sample of 100% pure dried Arctic Wild Wrack was conducted by the Biomedical Research Centre at Sheffield Hallam University, Sheffield, UK in December 2007 for Seagreens Ltd, London, UK. No traces of the following compounds in batch number 0019NORD were detected

#### Organotins:

Monobutyltin trichloride, Di-n-butyltin dichloride, Tributyltin chloride, Tetrabutyltin, Monooctyltin trichloride, Dioctyltin dichloride, Triphenyltin chloride, Tricyclohexyltin chloride

### Polychlorinated biphenyls:

2-chlorobiphenyl, 3,3-dichlorobibiphenyl, 2,4,5-trichlorobiphenyl 2,2,4,4-tetrachlorobiphenyl, 2,3,4,5,6-pentachlorobiphenyl, 2,2,3,3,6,6-hexachlorobiphenyl, 2,2,3,4,5,5-octachlorobiphenyl, 2,2,3,3,4,4,5,5-octachlorobiphenyl, 2,2,3,3,4,4,5,5,6-nonachlorobiphenyl, decachlorobiphenyl

#### **Organophosphates**

Dimethoate, Malathion, Parathion, TEPP (Tetraethyl pyrophosphate), EPN (Ethyl 4-nitrophenyl phenylphosphonothioate), Monocrotophos, Sulfotepp

#### **Aromatic Hydrocarbons**

Benzene, Toluene, o-Xylene, m-Xylene, p-Xylene, Ethylbenzene, Propylbenzene, Cumene, Butylbenzene

Isobutylbenzene, sec-Butylbenzene, tert-Butylbenzene, p-Cymene, 1,2,4-Trimethylbenzene, Mesitylene, p-disopropylbenzene, Styrene, alpha-Methylstyrene, beta-Methylstyrene, 1,2,4,5-Tetramethylbenzene







# Analysis of selected ion content of Arctic Wild Wrack gave the following results ( $\mu g/g$ of dry weight)

	As	Ca	Cd	Cu	Fe	Hg	I	K	Mg	Na	Pb
Wild Wrack	BLD	17841	1.8	BLD	345.66	BLD	375	20100	9636	35100	BLD

BLD = Below Limits of Detection

All analyses were carried out in triplicate from triplicate samples of Arctic Wild Wrack. From these results it was concluded that Arctic Wild Wrack batch number 0019NORD is free from the contaminants and heavy metals tested for and contains iodine levels of 375  $\mu$ g/g of dry weight.

Signed

Date 18/04/2008

For further information please contact:

Dr Jamie Young Biomedical Research Centre Commercial and Consultancy Services

Faculty of Health and Wellbeing Sheffield Hallam University City Campus Howard Street Sheffield UK S1 1WB

Telephone 0114 225 5555 Direct line 0114 225 2943 Fax 0114 225 3064 E-mail jamie.young@shu.ac.uk



