



GNC MARINE

PRODUCT DATA SHEET

BIO-BLOCK

INTRODUCTION

Accumulation of fats, oils and greases (FOG) is the main cause of blockages and floods in scuppers and grey water lines, the cause of failure in marine sanitation plants and other associated pipe-work operations, and results in malodour (oxidative rancidity, anaerobiosis, pest breeding grounds) in most cases. Problems caused by discharge of FOG are widespread and represent huge direct and indirect remedial action cost.

GNC Marine Bio-Block is one of several solutions offered by GNC Marine Ltd to mitigate some or all these issues. These products are designed to be used from point of discharge (sink) through the entire scupper/drain line system right up to the marine sewage treatment plant. The modular design means there is a size to suit every application, larger or small, stored water or fast flowing effluent, in marine.

GNC Marine Bio-Block is a solid product intended for slow release of emulsifiers, bacteria to degrade the FOG, and odour counteractants resulting in a continuous, low maintenance treatment. The blocks are proven to completely dissolve in 4-6 weeks to fit with common service or inspection cycles.

GNC Marine Bio-Block contains bacteria capable of degrading FOG. When combined with specific nutrients and slow release oxygen sources they can continue to break down FOG at the very low dissolved oxygen concentrations encountered in almost all drain line applications.

(**GNC Marine Bio-Block** is also available in 50g size and called **GNC Marine Bio-Puck**)

APPLICATIONS

- Scuppers
- Grease traps/interceptors
- Grey Water lines
- Marine pumping stations
- Marine Waste water treatment plants

Technical Information

GNC Marine Bio-Block is specifically manufactured for slow release. Combination of selected surfactants, binders and salts form a protective gel when the product is immersed in water. This ensures that turbulence and shear forces of fast flowing effluent does not over dose the system nor reduce the lifetime of the product. For example, the 5Kg Bio-Block will release approximately 125g active material per day – even at temperatures up to 50°C.

Additionally, **GNC Marine Bio-Block** is available in a tight mesh geo-textile filter sock that further reduces release by about 10X. The sock is manufactured from stitch bonded cotton and provides high tensile strength (see illustration below). This is useful in particularly fast flowing waste streams, or where a longer life time is required (up to 3 months).

GNC Marine Bio-Block is completely soluble and leave no residue for disposal. If used in the sock provided, this is biodegradable and can be disposed of as compostable waste.



GNC Marine Bio-Block (blue)



**GNC Marine Bio-Block (5Kg & 2Kg)
In a geo-tex sock**

Features and Benefits

<p>Features</p>	<ul style="list-style-type: none"> ✓ Easily placed at any position or height within the system dependent upon the application ✓ Requires no power supply thus easy to install and maintain. ✓ Fit and forget; provides 24 hr continuous application ✓ Lasts for 4-6 weeks (net) or 4-12 weeks (sock) ✓ Low daily treatment cost ✓ Suitable for low and high daily flows (e.g. 50L/d for 50g Bio-Puck; 20,000L/d for 5Kg Bio-Block) ✓ Includes mal-odour counteractants (specifically H₂S) ✓ Reduces maintenance costs
<p>Benefits</p>	<ul style="list-style-type: none"> ✓ Contains bacterial consortia specifically selected for degradation of FOG ✓ Side activities include degradation of a wide range of other sewage and food wastes. ✓ Degrades food and faecal wastes and reduces FOG and sludge so can reduce the frequency of pump outs. ✓ Mitigate or controls malodour (VFA's, H₂S, NH₃, other volatile sulphur/ammoniacal odours) ✓ Can reduce BOD/COD and TSS ✓ Simple and safe chemistry to compliment biological activity. ✓ Modular design to offer versatility and cost effectiveness.

SPECIFICATION

Product Type:	GNC Marine Bio-Block , for biodegradation of FOG
Product Code:	GNC-BB (bp/2/5/20)
Unit weight/dimensions:	50g (5 cm diameter x 2cm depth) 2kg (10 cm diameter x 12cm depth) 5kg (16 cm diameter x 14 cm depth) 20Kg (30 cm diameter 20 cm depth)
Construction:	Solid (Blue)
Sock material:	Tight mesh cotton woven tube, bonded stitch
Microbial count:	Average 3e9/g
Microbial specification:	Consortium of 6 x Class 1 <i>Bacillus strains</i> (5 species), QPS certified.
Product Shelf-life:	24 months (unopened/cool/dry)
Customs Export code:	3002905090
Intrastat code:	30029050

PACAKAGING

SIZE	Bio-Puck 50g	Bio-Block 2kg	Bio-Block 5kg	Bio-Block 20Kg
Single Unit (pail/case)	60x50g Pail	6x2Kg/case	2x5kg/case	1x20Kg/case
Pallet	TBC*	65x(6x2Kg) (4 layers)	80x(2x5Kg) (4 layers)	40x(1x20Kg) (4 layers)

PLACE OF MANUFACTURE

This product is manufactured and shipped from the UK