

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 and ISO 11014-1

1. Product and Company identification

Brand name: PURESAN[®]

Product name: Bio Block

Use of Product: Waste water treatment including Sewerage Treatment Plant water; FOG (Fat, Oil and Grease) in Grease Traps and Odor Control consisting of Non-Pathogenic Bacillus Subtilis bacterial spores (Spray Dried)

Company: Puresan (PTY) LTD
190 Hampton Court Drive, Chartwell, Randburg, 2055 South Africa

Emergency Telephone No: Phone+27(0) 829405826

2. Hazards Identification

Hazards description:

GHS Classification according to Regulation (EC) No 1272/2008 [CLP]:

Section	Hazard Class	Category	Hazard Statement Code	Hazard Statement
3.1	Inhalation	3	H333	May be harmful if inhaled over prolonged period
3.2	Skin Irritation	3	H316	Causes mild skin irritation
3.3	Eye irritation	2B	H320	May cause eye irritation
3.1	Ingestion	5	H303	May be harmful if ingested

EC Classification according to Directive 1999/45/EC:

Classification	Hazards characteristics
R 36/38	Irritating to eyes and skin
R24/25	Avoid inhalation
R17	Keep away from combustible materials especially solvents
R8	Contact with combustible material or solvents may cause a fire

3. Composition / Information on Ingredients

Composition of Bio Block a complex solid block containing:

Name	CAS No.	EC No.	Content
Sodium Percarbonate	15630-89-4	239-707-6	<18%
Non-Pathogenic Bacterial Spore Bacillus Subtilis	n.a	n.a.	< 80%
Nutrients: Fulvic Acid	479-66-3		<2%

4. First-aid measures

After inhalation:	Remove from exposure, rest and keep warm. In severe cases, or if recovery is not rapid, seek medical attention.
After skin contact:	Drench the skin with plenty of water; use a mild soap if available.
After eye contact:	<i>Remove contact lenses.</i> Rinse out with plenty of water with the eyelid held <i>wide open.</i> <i>Seek medical attention if necessary.</i>
After swallowing:	<i>Wash mouth out with water. Do not induce vomiting. If patient is conscious give water to drink. If patient feels unwell seek medical attention.</i>

5. Fire-fighting measures

Suitable extinguishing media:	Water
Special risks:	None.
Special protective equipment for firefighting:	Self-contained breathing apparatus
Other information:	None.

6. Accidental release measures

Person-related precautionary measures:	<i>Wear appropriate PPE – See section 8.</i>
Environmental-protection measures:	<i>The bacteria and carriers are naturally occurring and should not pose an environmental risk.</i>
Procedures for cleaning / absorption:	<i>If dry, vacuum or dry sweep piled material and place in closed plastic bags for disposal. If wet, place wet material in a drum or bucket lined with a plastic bag. The bag should not be tightly closed. Allow the bag to aerate for 24 hours before disposal. Disposal bag should be pin-holed near the top to avoid bursting if carbon dioxide or oxygen gas is evolved. Wash spill site with water. If bacterial contamination is an issue use suitable disinfectant to kill the bacillus subtilis.</i>

7. Handling and storage

Handling:	Good general ventilation; Avoid creating dust;
Storage:	Store in a dry area
Suitable Packaging:	HDPE/PVC containers

8. Exposure controls/personal protection

Engineering measures:	Not applicable
Hygiene measures:	<i>Wash hands after handling</i>
Personal protective equipment:	
Eye protection:	<i>Safety glasses</i>
Hand protection:	Gloves
Industrial hygiene:	None

9. Physical and chemical properties

Physical state:	Solid tablet
Colour:	Tan
Odour:	Slight Musty
Boiling point:	Not applicable
Melting point:	Not applicable
Flash point:	<i>Not applicable</i>

Specific Gravity:	Not applicable
Vapor pressure:	None
Solubility in water:	Partially insoluble
Relative density:	1,3 g/ml at 25°C
Flash-point:	Not applicable
pH:	8.0 (5% suspension)

10. Stability and reactivity

Stability:	Stable under normal storage and handling conditions. Keep away from moisture when storing.
Conditions to avoid:	Accumulation of product in enclosed spaces and generation of dust. High temperatures (>200°C) treatment or calcining. Avoid alteration of product properties before use. Calcining, which may result in gas formation, or mixing with additives may alter toxicological and chemical properties.
Materials compatible:	
Materials partly compatible:	Keep away from combustible solvents
Hazardous decomposition products:	None.
Further information:	None.

11. Toxicological information

Toxicological effects :Low Acute oral toxicity although ingestion will cause irritation of the gastrointestinal tract and may result in nausea and diarrhea. May cause mild mechanical irritation to eyes, skin and mucous membranes. May cause irritation from allergic reaction, especially to people that have a history of allergic reaction.

The LD50/LC50 values mentioned refer to concentrates of the individual raw materials. (IUCLID)

LD50/LC50:

Sodium carbonate:	Oral Acute, rat	: LD50 = >4090mg/kg
	Oral Acute, mouse	: LC50 = 6600 mg/kg
	Dust Inhalation	
	Acute, rat:	: LC50 = 2300 mg/m ²

12. Ecological information

No quantitative data is available for the finished product as the individual components do not form a complex compound and are soluble and individually mobile both in the concentrate and in the dilutions as recommended for intended use.

When dosing always adhere to environmental limits for the individual components in the country of intended use.

Mobility:	Partially insoluble in water
Persistence/degradability:	The resulting solution is readily degradable
Bio accumulative potential:	Bacillus Subtilis is naturally occurring bacteria and therefore no bio-accumulative potential is expected.
Further ecological data:	Not known

13. Disposal considerations

Methods of disposal:	Disposal of as special waste in compliance with local and national regulations.
Contaminated packaging:	Empty containers should be taken for recycling, recovery or waste disposal in compliance with local and national regulations

14. Transport information

Not Subject to transport regulations.	
Land transport (ADR/RID):	<i>No special regulations apply</i>
Sea transport (IMDG):	<i>No special regulations apply</i>
Air transport (ICAO-IATA/DGR):	<i>No special regulations apply</i>

15. Regulatory information

Labelling EC:

Symbols:	no
R-phrases:	8 – Contact with combustible material or solvents may cause a fire.
S-phrases:	36/38 irritating to eyes and skin; 3 Keep in cool place; 17 Keep away from combustible materials especially solvents; 24/25 Avoid contact with skin and eyes; 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

16. Other information

The information in this safety data sheet is correct to the best of our knowledge, information and belief, at the date of publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release of bulk concentrate, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

Date of issue: June 2018