power GRANULES® BIO

Low water- & CO_2 footprint Biodegradable material

PowerGranules BIO is pure power - eliminating pre-washing forever. All while being kind to the environment.

A greener option

We've tested and tried for hours and hours, to find a granule with the right shape, density and size, to efficiently clean your wash ware – all the while being kind to the environment.

PowerGranules BIO is partly biobased and made from three main ingredients: calcium salt, rapeseed oil and a combination of biodegradable polyesters. The granule's special composition gives it the right characteristics; hard enough to remove even baked-on food, but soft enough not to harm your cook ware.

Proven degradability
The particles generated when using PowerGranules BIO in granule ware washing machines from Nordisk Clean Solutions AB have successfully been tested according to *ISO 17556:2019 - biodegradability of plastics in soil* and reached 94% degradation in 24 months. Hence particles are not considered a microplastic according to EU regulation 2023/2055.

Approved for contact with food
PowerGranules BIO is in full compliance with the EU requirements for use in contact with food, and harmless in case of ingestion.

Making a great solution even better
Our smart pot washing solutions use in average 70% less water, chemicals, and energy than other pot washing methods. With the introduction of partly biobased PowerGranules BIO, our award-winning technology becomes even more sustainable. For example, our new granule has a 25% lower CO_2 footprint, and demands 87% less water in the manufacturing process than PowerGranules® original.

Usage and durability
PowerGranules BIO is compatible with all granule-powered solutions* from Nor:disk, old and new. However, due to differences in the material composition, we do not recommend mixing them with PowerGranules original.

PowerGranules BIO will last for 1.600 cycles in average, depending on the most frequently used wash programme, pot washing model, water quality, and your wash ware.

GD Memo™ keeps track of number of run wash cycles and reminds the operator when the granules are worn out and it is time for an exchange.

Recycling and waste management
Worn out PowerGranules BIO are recycled as combustible waste. The packaging is made from 40% recycled material (Polypropylene) and can be recycled as plastic waste.

More questions?
Check out or FAQ

Assortment
10 liters Art.No. 26602

** Not suitable in operations using desalinated water.*

NOR:DISK CLEAN SOLUTIONS

Safety data sheet

The safety data sheet is in accordance with Regulation (EC) 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and amended by Regulation (EU) 2020/878. Also in accordance with Regulation (EC) No 1272/2008 (CLP).

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY	1.1 Product identifier: PowerGranules BIO® 1.2 Relevant identified uses: Granulate used in pot and pan washing machines. 1.3 Supplier: Nordisk Clean Solutions AB, Jägershillgatan 13, SE-213 75 Malmö, Sweden, +46 (0)40-6715060, info@nordiskclean.com 1.4 Emergency information: +46 (0)40-6715060 (office hours) or call your local emergency number.
2. HAZARDS IDENTIFICATION	2.1 No need for classification according to GHS criteria for this product. 2.2 The product does not require a harzard warning label in accordance with GHS criteria and EC Directives. 2.3 Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.
3. COMPOSITION/INGREDIENTS	3.2 Mixtures: PBAT, CAS no. 55231-08-8; Calcium Carbonate, CAS no. 471-34-1; Rapeseed oil CAS no. 8002-13-9. Not classified according to Regulation (EC) No. 1272/2008 (CLP).
4. FIRST AID MEASURES	4.1 In room temperature, the product is not irritating and will not form any dangerous gases.
Ingestion:	Rinse mouth and then drink 200-300 ml of water, do not induce vomiting. If difficulties occur, seek medical attention.
Inhalation:	If inhaled and if difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.
Skin contact:	Burns caused by molten material require hospital treatment.
Eye contact:	In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.
	4.2 Most important symptoms and effects, both acute and delayed: Further symptoms and/or effects are not known so far. No hazards anticipated. 4.3 Indication of any immediate medical attention and special treatment needed: Treat according to symptoms (decontamination, vital functions), no known specific antidote.
5. FIREFIGHTING MEASURES	5.1 Suitable extinguishing media: water spray, foam, dry powder or carbon dioxide. 5.2 Special hazards; Endangering substances: Carbon monoxide, carbon dioxide, tetrahydrofuran, fumes/smoke, carbon black, harmful vapours. Advice: Formation of further decomposition and oxidation products depends on the fire conditions. Under special fire conditions traces of other toxic substances are possible. 5.3 Advice for fire-fighters: Special protective equipment, wear a self-contained breathing apparatus.
6. ACCIDENTIAL RELEASE MEASURES	6.1 Sweep up spilled Granules to prevent risk of slipping or of Granules being flushed down the drain. Handle as non-hazardous industrial waste, see point 13. 6.2 Environmental precautions: No special precautions necessary.
7. HANDLING AND STORAGE	Protect against moisture. Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame.
8. EXPOSURE CONTROLS/ PERSONAL PROTECTION	8.1 Control parameters: PNEC and DNEL; The obligation to register acc. to REACH Regulation (EC) No 1907/2006 does not apply to polymers. 8.2 Exposure controls: Wear a protective mask, protective goggles and possibly also protective clothing when handling molten material. Wash your hands after direct contact with Granules that has been in the potwasher due to detergent residues. Harmful gases may be formed in case of fire or thermal breakdown.
9. PHYSICAL & CHEMICAL PROPERTIES	
Physical state:	Solid
Color:	Green
Appearance:	Pellet
Melting point:	120 - 230 °C
Flammability:	Non-flammable
Auto-ignition temperature:	> 400 °C (ASTM D1929)
Decomposition temperature:	> 280 °C
Solubility:	Insoluble in water
Other information:	9.2 Physical hazard classes Fire-promoting properties: Not fire-propagating Burning rate: The material does not meet the criteria specified in paragraph 33.2.4.4 of UN manual of tests and criteria. Self-heating ability: Not a substance capable of spontaneous heating according to UN transport regulations class 4.2. Radioactivity: Not radioactive for transport purposes (DIN 53466). SAPT-Temperature: Product does not fulfil criteria for polymerizing substances according to transport regulations. Evaporation rate: Not applicable, the product is a non-volatile solid.
10. STABILITY AND REACTIVITY	10.1 No hazardous reactions if stored and handled as prescribed/indicated. No corrosive effect on metal. 10.4 Conditions to avoid: Extreme heat and all sources of ignition: heat, sparks, open flame. 10.5 Substances to avoid: strong oxidizing agents. 10.6 Possible decomposition products: At prolonged and/or strong thermal stressing above the decomposition temperature dangerous decomposition products can be formed.
11. TOXICOLOGICAL INFORMATION	11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
	Acute toxicity (oral): Not classified Acute toxicity (dermal): Not classified Acute toxicity (inhalation): Not classified Skin corrosion/ irritation: Not classified Serious eye damage/ irritation: Not classified Respiratory or skin sensitization: Not classified Germ cell mutagenicity Not classified Carcinogenicity Not classified Reproductive toxicity Not classified STOT-single exposure Not classified STOT-repeated exposure Not classified Aspiration hazard Not classified

NORDISK CLEAN SOLUTIONS

	11.2 Information on other hazards Endocrine disrupting properties: The product does not contain a substance that is considered to have endocrine disrupting properties according to EU REACH Article 57(f). Other relevant toxicity information: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
12. ECOLOGICAL INFORMATION	12.1 Toxicity: Assessment of aquatic toxicity. There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from the structure of the product. 12.2 Persistence and degradability: Assessment biodegradation and elimination (H_2O). The product is biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components. Elimination information: Biodegradable. 12.3 Bioaccumulative potential: Assessment bioaccumulation potential. Does not significantly accumulate in organisms. Because of the product's consistency and low water solubility, bioavailability is improbable. 12.4 Mobility in soil: Assessment transport between environmental compartments: Adsorption in soil: Adsorption to solid soil phase is not expected. 12.5 Results of PBT and vPvB assessment: According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/ bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. 12.6 Endocrine disrupting properties: The product does not contain a substance that is considered to have endocrine disrupting properties according to EU REACH Article 57(f). 12.7 Other adverse effects: The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer. 12.8 Additional information: This product contains no organically bound halogen (AOX). At the present state of knowledge, no negative ecological effects are expected. The product has not been tested. The statements on ecotoxicology have been derived from products of a similar structure and composition.
13. DISPOSAL CONSIDERATIONS	
Spillage or unused Granules:	Handled as non-hazardous waste. Appropriate for sorting as combustible waste. Waste key: 07 02 13 waste plastic
Used Granules:	Should be sealed in a plastic bucket with a lid or in a plastic bag before being disposed of as combustible waste. N.B. Biodegradable granules can not and should not be recycled with recyclable plastic waste!
Packaging:	Packaging (bucket with lid) to be sorted as recyclable plastic (PP05).
14. TRANSPORT INFORMATION	General: Not classified as a dangerous goods under transport regulations.
15. REGULATORY INFORMATION	15.1 Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU): Listed in above regulation: No 15.2 A safety data sheet for this product is legally not required, but is provided as a courtesy to our customers. Product is not classified as hazardous. Chemical Safety Assessment not required.
16. OTHER INFORMATION	According to EU law, this product is not classified as hazardous. Replaces previous version Rev. date 10.01.2023.

The information given in this safety data sheet is correct to the best of our knowledge and as far as we can determine at the date of its publication. This information is intended only as a guide for safe handling, use, processing, storage, transport, waste management and emissions, and must not be regarded as constituting a guarantee or quality specification. The information relates only to the material specified and does not apply to this material when used in combination with any other material or process not specified in the text.

NORDISK
CLEAN SOLUTIONS