



Product Information Biochek® 8071







Uses

Biocidal masterbatch product for the protection of plastics, particularly plasticized PVC (P-PVC), against the infestation by fungi and discolouring bacteria.

Chemical and physical data

Composition:	Biocidal masterbatch product based on ethylene / vinyl acetate copolymer containing the actives 2-(4-Thiazolyl)-benzimidazole (Thiabendazole) and 3-lodo-2-propinylbutylcarbamate (IPBC) in a concentration of 8.0 % - 9.0 % (w/w; sum of actives).
Product description:	Beige coloured pellets.

SpecificationThe specification parameters can be found in the currently valid product specification.

Characteristic data*

Density:	1.044 kg/l at 20 °C (EG A.3 / DIN 51757)
Viscosity:	431,6 mPas at 20 °C (DIN 53019)
Boiling point:	> 210 °C (DIN 53171)
Pour point:	9 °C (DIN ISO 3016)
Flash point:	191 °C (DIN EN ISO 2719)
Vapour pressure:	7 hPa at 20 °C (EG A.4)
Ignition temperature:	410 °C (EG A.15 / DIN 51794)

Characteristic data of the carrier polymer*

Vinyl acetate content:	27 – 29 w%
Melt Index (190 °C / 2.16 kg):	22 - 29 g/10 min (ISO 1133 / ASTM D1238)
Hardness Shore A:	75 (ISO 868 / ASTM D2240)

^{*}These items are provided as general information only. They are approximate values and are not considered to be part of the product specifications.





Storage

Stored properly in sealed original containers, the product has a shelf life of 12 months. Do not store the product at temperatures above 40 °C.

Application

Biochek® 8071 is intended to be used as a preservative for particularly plasticized PVC. It protects the polymer compound or articles made hereof from fungal infestation leading to discoloration and detrimental change in mechanical properties. Moreover, Biochek® 8071 protects the polymer compound against undesirable discoloration due to the infestation with certain bacteria.

Biochek® 8071 is preferably added to the main compound during the extrusion process.

The required level of addition of Biochek® 8071 depends especially on the exposure of the plasticized PVC compound or article to moisture, organic deposition, UV irradiation and microbiological micro environment and has to be found effective at 1.50 % - 2.50 % (w/w) with respect to the final compound.





Example application

PVC samples of a compound containing the following constituents were prepared by extrusion:

Test formulation containing 2.1 % (w/w) Biochek® 8071	Reference without biocide
PVC-P compound 51A286/M2 (Begra)	PVC-P compound 51A286/M2 (Begra)
2.1 % Biochek® 8071	-

The samples were subjected to agar diffusion testing according to ISO 846B standard in order to evaluate the resistance against fungal infestation. 6 replicates per sample (3 subjected to a leaching procedure, 3 used as received) were used and the following results were obtained:

	Rating (unleached)	Rating (leached)
Reference sample	5/5/5	5/5/5
Sample containing 2.1 % Biochek® 8071	0/0/0	0/0/0

The results above are based on the following scheme:

- 0 = No growth apparent under the microscope.
- 1 = No growth visible to the naked eye, but clearly visible under the microscope.
- 2 = Growth visible to the naked eye, covering up to 25 % of the test surface.
- 3 = Growth visible to the naked eye, covering up to 50 % of the test surface.
- 4 = Considerable growth, covering more than 50 % of the test surface.
- 5 = Heavy growth, covering the entire test surface.

Registration / Approval / Recommendation**

Please note that the product is not yet registered with the EPA.

**Regulatory Compliance Information: Some of the end uses of the products described in this bulletin must comply with applicable regulations, such as the FDA, NSF, USDA, and CPSC. If you have any questions on the regulatory status of these products, contact your LANXESS Corporation representative or the LANXESS Regulatory Affairs Manager in Pittsburgh, PA





Health & Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling the LANXESS products mentioned in this publication. For materials mentioned which are not LANXESS products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be followed. Before working with any of these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets and product labels. Consult your LANXESS Corporation representative or contact the LANXESS Product Safety and Regulatory Affair's Department in Pittsburgh, PA.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitablity from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

Note: The information contained in this bulletin is current as of the edition date. Please contact LANXESS Corporation

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