



REBREAD

PRODUCT CARD:

CrumbsUp

A **functional food ingredient** made from stale bread and edible filamentous fungi. Our product is created using an environmentally sustainable and energy-efficient solid-state aerobic fermentation (SSF) process, after which it is thermally inactivated, ground and hermetically packaged - making it safe and maintaining shelf life and consistent sensory characteristics for up to **3 months in room temperature**.

SSF – this traditional method, which utilises microorganisms, has been used for food production for millenia (sauerkraut, kimchi, tempeh, miso paste, soy sauce) and improve the nutritional value of foods.



CrumbsUp powder has a beneficial effect not only on the **nutritional value** (complete sustainable protein, dietary fibre, bioactive ingredients and minerals), but also on the **texture, taste and aroma** of the final products.

Main application areas:

Partial substitute for wheat flour in baked goods, biscuits, pasta and breakfast products

Umami seasoning/sprinkle in loose products

Functional ingredient in pastes and sauces

Natural flavour and sweetness enhancer





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Forms and flavour variants

- For bakery applications:

Sample batch	Appearance	Aroma	Flavour	Texture
	light colour	cheesy, noticeable fruity notes, intense	sweet with noticeable bitterness, umami, notes of nori seaweed and soy sauce	delicate
	light colour	yeasty, bread-like, mild	cereal, slightly sweet, neutral flavour	crisp and crumbly

- For plant-based applications:

Sample batch	Appearance	Aroma	Flavour	Texture
	light colour	cheesy, noticeable fruity notes, intense	sweet with noticeable bitterness, umami, notes of nori seaweed and soy sauce	delicate
	olive green	mushroomy, nutty, mild	sweet, with notes of nuts and yeast flakes	soft and crumbly
	beige	honey, slightly citrusy, distinctive	sour and slightly salty	crunchy in some parts, chewy

Sample ingredients

wheat bread [wheat flour, water, yeast, salt], koji
[e.g. Aspergillus oryzae, Rhizopus oligosporus]

Product may contain: gluten

Country of origin: Poland



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Product characteristics

CrumbsUp nutritional value/100g - comparison:

Nutritional value 100g	Soybean	Green pea	Chickpea	Cashews	CrumbsUp
Energy value	446 kcal	364 kcal	378 kcal	601 kcal	341 kcal
Fat	19,9 g	3,89 g	6,04 g	48,2 g	3,56 g
Carbohydrates	30,2 g	61,6 g	63 g	18,1 g	62,32 g
Sugars	7,33 g	3,14 g	10,7 g	4,6 g	14,6 g
Fiber	9,3 g	22,2 g	12,2 g	7,3 g	17,84 g
Protein	36 g	23,1 g	20,5 g	20,0 g	23,81 g

Microbiological analysis (12 weeks storage at room temperature)

Total aerobic microbial count: 80 cfu/g
Total number of Salmonella sp.: not detected (0 cfu/25g)
Total number of Listeria monocytogenes: not detected (0 cfu/g)
Total coliforms: not detected (0 cfu/25g)
Total number of coagulase-positive staphylococci: <10 cfu/g
Total yeast and mould count: <40 cfu/g

Mycotoxin content analysis

Sum of group B/G aflatoxins: <0,2* µg/kg
Ochratoxin A: <0,5* µg/kg
Zearalenone: <5,0* µg/kg
Deoxynivalenol: <10* µg/kg

*Analytical results below the limit of quantification of the method