

# CHITOSHIELD 5%



**100% Bio**

**BASIC SUBSTANCE  
ELICITOR OF THE CROP'S SELF-DEFENCE MECHANISMS**

**COMPOSITION:**

*Chitosan Hydrochloride* 5% p/v

No. CAS 70694-72-3

BASIC SUBSTANCE: Commission Implementing Regulation (EU) No 563/2014 concerning the approval of Chitosan Hydrochloride as basic substance under Regulation (EC) No.1107/2009.

Active substance listed in Annex II of Reg. EC 889/2008 (Organic Farming).

Authorization for the placing on the market and use not required, under Article 28 (2) of Reg. EC 1107/2009.

**Authorized in organic farming**



**Smileybee Ltd**

Strovolou, 77 Strovolos Centre n.204, Strovolos, 2018, Nicosia, Cyprus

**Distributed by:**

Smileybee Ltd - Strovolou, 77 Strovolos Centre n. 204, Strovolos, 2018, Nicosia, Cyprus

**PRODUCTION AND PACKAGING WORKSHOP**

For Smileybee Ltd. India - Chennai

# CHITOSHIELD

Active Ingredient:

Chitosan Hydrochloride

5% weight/volume

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## GENERAL INFORMATIONS

CHITOSHIELD is a bio-complex of natural origin with a bio stimulating action on the endogenous defenses of the plant.

CHITOSHIELD consists of linear low molecular weight polysaccharides whose main components D-glucosamine and N-acetyl-Dglucosamine are linked by  $\beta$  bonds.

CHITOSHIELD is extracted from the exoskeleton of crustaceans through an innovative low-temperature deacetylation process to preserve the total bioavailability of its components and ensure their total solubility.

CHITOSHIELD leaves no residue on leaves and fruits, does not stain, has no shortage times, is completely biodegradable and not dangerous for humans and the environment.

## DESCRIPTION

CHITOSHIELD is a plant resistance inducer and activates natural defense mechanisms to fight pathogens, with significant activity against numerous fungal and bacterial diseases.

CHITOSHIELD thanks to the low molecular weight and the perfect solubility of its components is quickly and totally absorbed by leaves and fruits and translocated both by phloem and xylem to all the organs of the plant.

The polysaccharides present in CHITOSHIELD are also the constituents of chitin present in pathogenic fungi.

The application of CHITOSHIELD mimics the presence of a pathogen, thus inducing the plant to produce defense biomolecules known as phytoalexins with fungistatic and fungitoxic action.

CHITOSHIELD also improves seed germination and resistance to abiotic stresses such as high and low temperatures with positive qualitative and quantitative effects on production.

**Content of heavy metals less than 20 ppm**



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## **FIELDS OF APPLICATION AND DOSES**

CHITOSHIELD can be applied with both low and medium and high volumes of water with an interval between one application and another of 10-15 days.

CHITOSHIELD is miscible with the most commonly used pesticides.

**DOSES:** From 2 liter to 3 liters per hectare depending on the leaf surface to be treated and the pressure of the disease.

### **FIELDS OF APPLICATION :**

- FRUIT TREES throughout the crop cycle
- VINES from sprout 20 cm
- OLIVE, AND CITRUS FRUITS from vegetative recovery to post harvest
- STRAWBERRY AND SMALL FRUITS from pre-flowering to post-harvest
- CEREALS in association with herbicides, fungicides and insecticides
- CEREALS and SUGAR BEET (seed treatment 2 liters / ton of seed)
- HORTICULTURAL AND AROMATIC CROPS from post transplant to the end of the cycle
- ORNAMENTAL CROPS from post transplant to the end of the cycle

Please see a more complete list below.



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## CROPS

- Vines (table grapes, wine grapes)
- Strawberries
- Fruit of shrub plants (blackberries, strawberries, red and yellow raspberries, others)
- Other small fruits and berries (blueberries, currants, gooseberries, rosehip fruit, black and white mulberries, medlars, elderberries, others)
- Fruit crops
- Root and Tuber Vegetables (Potatoes)
- Tropical root and tuber vegetables (cassava roots, sweet potatoes, yams, arrow roots, others)
- Other root and tuber vegetables (beets, carrots, celery, turnip, horseradish, Jerusalem artichoke, parsnips, parsley, radishes, sauces, rutabagas, turnips)
- Bulbous vegetables (garlic, onions, scallions, spring onions, others)
- Fruit vegetables - Solanaceae and Malvaceae (tomatoes, peppers, eggplants, others)
- Fruit vegetables - Cucurbits with edible peel (cucumbers, gherkins, courgettes, others)
- Fruit vegetables - Cucurbits with inedible peel (melons, pumpkins, watermelons, others)
- Fruit vegetables - sweet corn
- Brassica vegetables (broccoli, cauliflower, Brussels sprouts, cabbage, leafy cabbage, Chinese cabbage, kohlrabi)
- Leafy vegetables, edible herbs and flowers (lettuce and salads, broadleaf escarole / endive, cress and other sprouts, ground cress, rocket, small-leaved crops, spinach, purslane, chard, cress, Belgian endive)
- Edible herbs and flowers (chervil, chives, celery leaves, parsley, sage, rosemary, thyme, basil and edible flowers, bay leaf, tarragon, others)
- Legumes (beans with pods, beans without pods, peas with pods, peas without pods, lentils, others)
- Stem vegetables (asparagus, thistles, celery, fennel, artichokes, leeks, rhubarb, bamboo shoots, palm hearts, others)
- Mushrooms, mosses and lichens
- Cereals (barley, buckwheat, other pseudocereals, maize, millet, oats, rice, rye, sorghum, wheat, others)
- Seed spices (anise, cumin, celery, coriander, dill, fennel, fenugreek, nutmeg, others)
- Fruit spices (allspice, pepper, cumin, cardamom, juniper berry, vanilla, tamarind, others)
- Bark spices (cinnamon, others)
- Root and rhizome spices (licorice, ginger, turmeric, horseradish, others)
- Bud spices (cloves, capers, others)
- Flower pistil spices (saffron, others)
- Aril spices (mace, others)
- Ornamental bulb plants



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## WARNINGS

Keep out of reach of children.

Do not ingest and avoid contact with eyes, skin, mouth.

Use the product within 24 months from the date of manufacture

The use of the product shall not exceed 8 liters per hectare

