Humintech is one of the worldwide largest organic fertilizer and humic substance producers, based in Grevenbroich, Germany. Humintech GmbH is expanding its production capacity and therefore moved in 2014 to a new production plant (30,000 m²) in Grevenbroich, Germany (directly closed to the lignite open cast mining Garzweiler II). Humintech used to produce its humic acids based products in three different areas and now it joined them in one area in Grevenbroich. In this way, Humintech has the possibility to optimize its logistics and supply its products faster to the customers worldwide. The new high technology production line enables Humintech to increase the production capacity to about 50,000 t/year humic acids based products in granular form (Perlhumus®), 10,000 t/year humic acids based products in water soluble form (Powhumus®) and 30,000 cbm/year of humic acids based products in liquid form (Liqhumus®). The new production line will enable the Humintech team to maintain and increase the quality of its humic acids based products and to manufacture several new products based on humic acids in combination with other organic fertilizers and biostimulants. Beside the current product line the company will update its new product range to more than 50 different humic acids and organic matter based products within the next two years, which will contribute to increase the quantity and quality of plant production.

Humintech takes the best German oxidized Lignite resources’ (Leonardite) with high humic /fulvic acids quantity and uses the high technical production methods to get the high humic acid quality. Furthermore Humintech is active in research, development and industrial production of humic matter and humic acids for agriculture, animal feed, pharmaceutical and construction industries, veterinary medicine and environmental applications such as water purification and soil remediations.
Humintech produces a large quantity of granulate humic acid as Perlhumus, water soluble humic acid as Powhumus and liquid humic acid as Liqhumus and 6% Fe-humate as Humiron. Humitech started the production of humic acid with various microorganisms as antagonist of several soils born disease. BioHealth is one successful antagonist to soil born fungi.

**BioHealth® TH/BS WSG**  
**DESCRIPTION**  
BioHealth® TH/BS WSG is a blend of selected Trichoderma harzianum and Bacillus subtilis strains, humic acids and seaweed extract. Trichoderma harzianum and Bacillus subtilis are antagonist to soil borne pathogens like e.g. Phythium, Phytophthora, Rhizoctonia or Fusarium, whose hyphens and organs can be disposed by Trichoderma’s comprehensive enzyme tools. Thus Trichoderma suppresses the spreading of these pathogens. Bacillus subtilis have evolved numerous mechanisms for both attack of other fungi or bacteria and for enhancing plant and root growth. During a culture Bacillus subtilis nourishes on the root exudates in the rhizosphere and thus builds a biological protective barrier against soil borne pathogens.

In latent affected plant material BioHealth TH/BS WSG remains ineffective, due to the reason that the antagonist cannot follow the parasite into the inside of the plant. Therefore BioHealth® TH/BS WSG has to be regarded as a soil conditioner or rather a plant intensifier and under no circumstances as a fungicide against soil pathological fungi.

**ORIGIN**  
BioHealth® TH/BS WSG is obtained through alkaline extraction from German Leonardite (highly oxidized lignite), high quality isolated and selected Trichoderma harzianum fungus, high quality isolated and selected Bacillus subtilis strains and extracted from Ascophyllum nodosum seaweed.
HUMIC ACID

Inoculation of sterile soil, prophylactic mixing before the infection, soil conditioner

3-4 kg/ha divided to several doses (1-2kg/ha) before and during the season

4-5 kg/ha divided to several doses (1-2kg/ha) during the season, or submerge the seedling before the transplantation

3-4 kg/ha divided to several doses (1-2kg/ha) before and during the season

3-4 kg/ha or 1 kg/m² during the preparation of substrates

300-500 g/1000 L water every two weeks during the season

1-2 kg/100 Kg seeds

* This recommendation could be varied according to the soil characteristics and farm conditions