

Technical Data Sheet

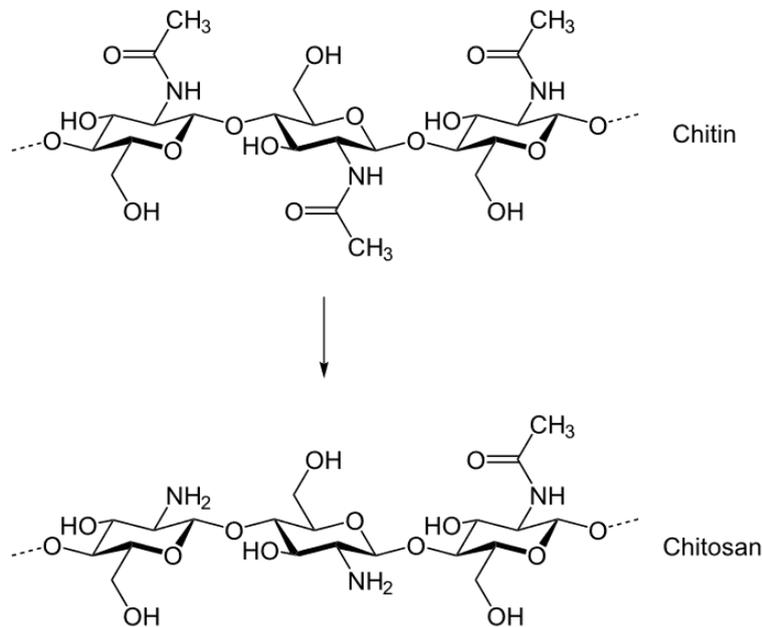
Chitosan

Chitosan is a linear polysaccharide of N-acetylglucosamine that has been deacetylated and partially depolymerized.

Chitosan is one of a few cationic polymers found in nature, and as such, is increasingly being used in a wide range of applications. It is organically certifiable.

Chitosan is soluble in weak acid and so, once the alkali is neutralized, it can be safely applied to plants/soil as a solution or as a dry powder.

Plater Bio Chitosan is extracted crustaceans (as is the industry standard).





Applications

The cationic properties of the chitosan oligosaccharide imbue it with unique properties that can be exploited by biotechnologists; including applications in the fields of medicine, material science, and crop science;

- **Agricultural biostimulant.** Applied to crops as either as a foliar application or seed coatings. Chitosan has been demonstrated to induce a range of beneficial responses in numerous economically important crop plants. This includes; 1. direct antibiosis against pests and pathogens of crops, 2. enhancement of beneficial microbes, both in plant defense and growth, 3. stimulation of plant defense responses against biotic stress and 4. up-regulation of plant growth, development, nutrition, and tolerance to abiotic stresses.

Chitosan can also be applied as a coating to fertilizer prills and granules to limit dust release, control nutrient release, and add biostimulant activity.

- **Flocculation.** Used to remove contaminants in water treatment (phosphates, humates etc.), brewing (finings), and manufacturing (product recovery).
- **Cosmetics and Medicine.** Binding active ingredients for improved delivery and as an antimicrobial.

Material science; Creation of bioplastic films, hydrogels, and emulsifying colloids.

Forms available

We manufacture chitosan linked to a comprehensive range of counter-ions, including;

- **Chitosan hydrochloride;** suitable for use as an organic substance in the EU.
- **Chitosan citrate;** excellent for stable biostimulants, gel/bioplastics and water treatment.

Liquid and spray-dried powders (fully soluble) available for all of the above.