

CYCLODEXTRIN



Cyclodextrin can be used to encapsulate a large range of molecules. Encapsulation agents can be chosen based on a variety of criteria, including oxidation resistance, solubility, dispersion, viscosity and impact on glass transition points.

The major advantage of our product is biodegradability that respects the environment, while effectively encapsulating active molecules. The resulting complex of Cyclodextrin and active promotes optimal release and stability of the formulated product.

HOW TO USE

Cyclodextrin is blended with the molecule to be encapsulated. This mixture may be formulated:

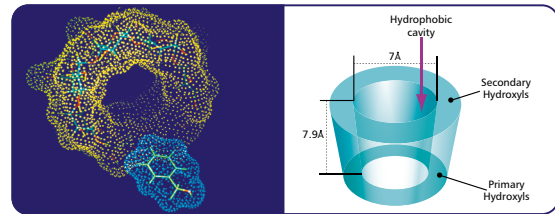
- In the form of a solid paste with minimal water to promote contact between β -cyclodextrin and molecule.
- In the form of a liquid between HP- β -cyclodextrin or β -cyclodextrin and molecule.

After specified contact time, specifically optimized to the molecule, drying and grinding may be applied in order to achieve a uniform powdered product.

WHAT DOSAGE?

Molecule dependent, as stoichiometry may differ

The dosage is calculated in mol/mol between β -cyclodextrin and the molecule to be encapsulated, usually 1 to 3 molar equivalent.



OUR ADVANTAGES

ENVIRONMENTALLY FRIENDLY

- Environmental compatibility is key in relationship to our renewable, vegetable based solutions
- β -cyclodextrin structure decreases the interaction between hydrophobic parts of the active compound and surrounding aqueous environment

PHYSICAL PROPERTY MODIFICATION

- Increase the solubility and dispersion of selected molecule
- Protection against oxidation, UV, temperature variations...

EFFICIENCY IMPROVEMENT

- Controlled and optimal release of the active ingredient

CYCLODEXTRINS

PHYSICAL PROPERTIES

	β-cyclodextrin	HP-β-cyclodextrin
Appearance	White crystalline powder	White crystalline powder
Water	Max. 14%	Max. 10%
Density	Approx. 0.7 kg/l	Approx. 0.7 kg/l
Molecular weight	1135 g/mol	----
Solubility	Approx. 18 g/L at 20°C	Freely soluble in water

MISCELLANEOUS INFORMATION

Storage temperature	5–30°C
Storage instructions	Closed container
Shelf life	12 months
Packaging	Custom Packaging

OUR POSSIBILITIES

Cyclodextrin is used for inclusion and association capabilities in particular for plant protection and nutrition.

