Co-processed Excipients

About Co-processed Excipients

Co-processed excipients are combinations of two or more pharmacopoeial or non-pharmacopoeial excipients whose purpose is to change their physical properties, which cannot be achieved by simple physical mixing, and there is no significant chemical change. By formulating a small amount of excipients into a single composite material with a special manufacturing method, the function of the final product has been improved. This has become a new trend in formula development. In the formulation and development of tablets, capsules, powders, creams, ointments and other dosage forms, Co-processed excipients has attracted more and more attention. It is different from physical mixtures. The physical mixture is a simple mixture that is processed by a small amount of excipients in a short period of time. However, in co-processed excipients, they have performance advantages that cannot be achieved using physical mixtures of the same excipient combination. Combining economical excipients with the optimal quantity of other functional materials will produce integrated products with superior functions than simple mixing of ingredients. Co-processed generally does not involve chemical changes.

Overview of the Composition of Co-processed Excipients

The ingredient profile of the co-processed excipients will include the ingredient profile of the individual ingredient excipients, as well as any other minor accompanying ingredients. Although it is not possible to test all ingredients for each batch, the developer/manufacturer of the excipient should know as much as possible about the ingredient profile and how it changes over time. The auxiliary material manufacturer shall prove the specified difference in the proportion of co-processed auxiliary materials composed of each auxiliary material. The difference may depend on the process capability, but should not affect the expected performance of the co-processing excipients. Users should be aware that, in some cases, this deviation may be greater than the typical GMP accuracy of 10% ingredient addition.

Stability of Co-processed Excipients

As with any excipient, the stability of the co-processed excipient should be determined. Stability studies should address the chemical and physical stability of co-processing excipients, including improved performance stability. Stability studies should be conducted under storage conditions that appropriately simulate commercial packaging alternatives.

The Benefits of Co-processed Excipients

- Functional synergy.
- Complementary of the functions.
- The development of Co-processed excipients is mainly to solve the problems of fluidity, compressibility and disintegration potential, and the combination of filler and binder is the most commonly used.

Manufacturing Method of Co-processed Excipients

- High shear mixer dispersion
- Co-milling
- Homogenization

- Co-precipitation
- Co-crystallisation
- Wet granulation
- Extrusion
- Hot melt extrusion
- Spray drying

CD Formulation is a leading manufacturer of excipients that help improve the performance of pharmaceuticals and other products in the pharmaceutical industry. We develop, manufacture and market pharmaceutical excipients in solid, semi-solid and liquid dosage forms. If you have any requirements on excipients, please do not hesitate to contact us by phone or email in time, our colleagues will reply to you within 2-4 working days.