Table Top Sweeteners

The Table Top category is the classical application for high intense sweeteners. When Constantin Fahlberg discovered Saccharin in 1878, the product was, after approval for human use, only available as pure crystalline substance. Starting from scratch at the end of the 19th century, table top products today worldwide can be found in many different forms. The industry developed continuously application forms, formulations and production technologies. Since the 1980's HYET Sweet is active in this process. Breakthrough developments in taste optimization or high speed tableting are part of the company history. Based on her experience HYET Sweet can help to develop products for the future markets.

Together, We will make a Happier, Healthier and Sweeter life!

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TABLETS

The typical tablet weight of table top sweeteners is 40 to 90 mg. 30% to 50% of that weight is reserved for the sweeteners. Usually Aspartame, Acesulfame-K, Sucralose and Steviolglycosides are used as a single sweetener or in combinations thereof. Often carrier substances like lactose, disintegration accelerators (carboxymethylcellulose), anti-caking or lubricant additives are mixed with the high intense sweeteners before the compound is fed into the high speed tableting machines. This process is described as direct tableting and can be seen as an industry standard.
It is cost efficient as the formerly used process step of wet granulation (to ensure homogeneity) is eliminated. However, direct tableting requires special physical properties of the components the compound is made of. Especially the particle size distribution profile and the particle hardness play an important role.

HYET Sweet developed for this production technology high intense sweeteners that match perfectly the requirements of direct tableting. Fine Granular products and mixes of granular types ensure good distribution in the tableting compound when added at the point of use. The dusting of low dense material is eliminated and the product is free flowing.
These physical parameters guarantee a failure free production process. Furthermore, the products dissolve quickly when consumers use the tablets at home.

SACHETS

Products offered in sachets, typically filled with 0,5 g to 1 g of product, are another popular application form. Mainly maltodextrin is used as a carrier but also crystalline sugars are applied. Even with maltodextrin or sugar used as carrier a significant calorie reduction of approx. 90% is reached due to very low filling weight. One sachet contains between 20 and approx. 40 mg of high intense sweeteners. To match the exact doses for each sachet filled, a very stable mix has to be manufactured. This can be done with fine sweetener powders containing particles that are sticking to the relative big sugar crystals or dextrin particles when they are blended. Alternatively, spray drying can help to reach the desired stability. Special care is needed when the packaging material is selected. In hot and humid climate zones humidity can pass through the paper of the sachets and cause reactions of the product.
This can be a simple forming of lumps but also trigger a coloration as a result of the Maillard reaction.

For more information please contact:
technical.service@hyetsweet.com
or call T +33 3 28 22 74 00

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