

Monk Fruit Extract - New Darling of Natural Sweeteners

What is Monk Fruit Extract?

Although sugar is a great energy source as it can be quickly metabolized and absorbed, it provides “empty” calories and lacks minerals and vitamins. Seeing this, more consumers are shifting their demand to food products with reduced sugar or those with natural sweeteners, which has made Monk fruit extract a star ingredient of all-natural sweeteners.

Luo Han Guo fruit (*Siraitia grosvenorii* Swingle) which is also known as Monk Fruit is a subtropical melon grown in Southeast Asian countries. Monk fruit extract is a natural sweetener in which the glycosides in the fruit gives the sweet taste thus being an all-natural, zero-calorie sweetener (Balachandran, 2018). The commercialized monk fruit extract is in light yellow-brown powder which is readily soluble in water. It has been used whole or in dried powder form for many centuries in China as beverages and traditional medicines, recognized for its potential use as an intense sweetener in later years (Food Standards Australia New Zealand, 2018).

The components of the monk fruit extract that impart the sweetness are collectively known as mogrosides, the active ingredients that are extracted from the dry fruit (Balachandran, 2018). The sweetness of monk fruit extract is reported to be 100 to 300 times sweeter than sugar depending on the structure of the mogrosides, the number of glucose units and its food matrix (FDA, 2018; Bajwa & Goraya, 2016). Mogrosides are an important bioactive components of *Siraitia grosvenorii* fruit that are very sweet and low in calories. The sweetener is digested and absorbed with a yield of 1 calorie/gram. It is so sweet that only small amounts are needed to sweeten the foods (Boyle, 2015).

Incorporation of Monk Fruit Extract into different applications

Owing to the high sweetness and non-toxic characteristic, monk fruit extract can be incorporated into a wide range of applications including beverages, dairy products, bakery products, ice cream, frozen desserts, sweeteners, chocolate and fruit bowls. They can be also marketed to diabetics and those who want to cut down on sugar intake.

Monk fruit extract has been used as an intense sweetener in table top sweeteners and other ready-to-consume foods. Besides that, it also performs well in baking as it has high temperature stability without unpleasant aftertaste (Food Standards Australia New Zealand, 2018).

Chocolate milk is one of the favorite choice of milk consumption among children however it always comes with high sugar content. A study has been conducted to recognize the sweetness intensity perception of stevia leaf and monk fruit extract as well as to evaluate them as a sweetening agent in skim chocolate milk. It was concluded that chocolate milks sweetened with stevia leaf and monk fruit extract in combination with sucrose were acceptable by both young adults and children (Bajwa & Goraya, 2016).

Are monk fruit extract safe for the long run?

Monk fruit has received regulatory approval in Asia, the United States and some Latin American countries. It was granted GRAS (generally recognized as safe) status in 2010 where it received the US FDA food safety certification after clearing toxicology and food safety tests as well as being approved for the use as food additives (FDA, 2018; Liu et al., 2018).

There is no ADI (Acceptance Daily Intake) being set for monk fruit extract. However, there is an estimated daily intake of 6.8mg/kg of body weight (Boyle, 2015).

Up to date, there are no adverse effects on human health or development associated with monk fruit extract consumption reported. Additionally, there is no evidence from human studies which showed adverse effects of monk fruit consumptions. There is no chronic toxicity nor carcinogenicity studies available and monk fruit extract is not genotoxic and no lesions. (Food Standards Australia New Zealand, 2018).

You may find out more products in the market which sweetened with monk fruit extract at

<http://www.ricebowlasia.com/questions/kindly-provide-market-examples-that-incorporated-monk-fruit-extract-in-different-application/>

References

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