As a professional producer of food ingredients and nutraceuticals, Vitasweet is not only developing, producing and selling products, but also providing technical supports.

Vitasweet takes product quality as the highest principle in its production and management. For years, Vitasweet has pleased its clients with outstanding service, and has gradually won credit within this field, as well as among clients all over the world.

Vitasweet has built a complete distribution network in the world. By promoting the healthy, economic food style, Vitasweet has contributed to the diversification of consumers' eating style in fields of foods, beverages, personal care products and pharmaceuticals, etc..

Professional producer of food ingredients and nutraceuticals

Vitasweet—Meet the demand for healthy lifestyle

Calorie Control Council reportedly says that people in the world are now continually searching for good-tasting, low-calorie products to consume as part of an overall healthy lifestyle, more and more consumers become calorie-conscious. Currently, most people in the U.S. consume low-calorie, sugar-free foods and beverages, the majority of the adults in the U.K. eat or drink light foods and beverages. Low-calorie sweeteners make these products possible.

With their intensive sweetness, good taste, low calorie and high stability, Vitasweet® Ace-K , Vitasweet® APM and Vitasweet® TGS especially suit for numerous products with improved taste, increased stability, lower manufacturing costs and ultimately, more choices for consumers.

Vitasweet® Ace-K

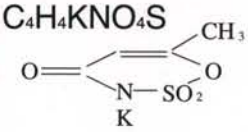
Product name : Vitasweet® Ace-K

Synonyms : Acesulfame-K / Acesulfame Potassium

Chemical name : Potassium salt of 6-methyl-1,2,3-oxathiazin-4(3H)-one-2,2-dioxide

Chemical formula : $C_4H_4KNO_4S$

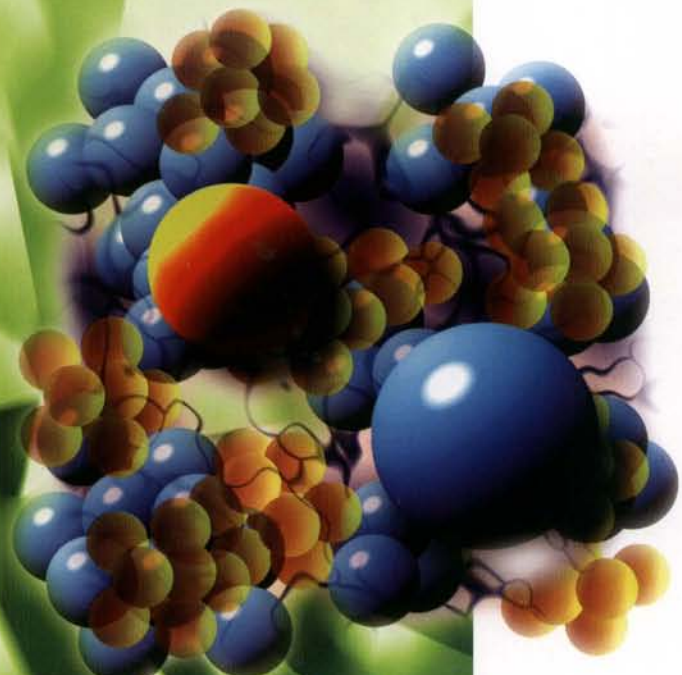
Structural formula:



Molecular weight : 201.24

Code : GB19.011; INS NO.950

C.A.S. number : 55589-62-3



Characteristics and advantages:

- Intensive sweetness, 200 times as sweet as sucrose in 3% solution
- No absorbing moisture and no peculiar smell
- Readily soluble and highly stable in water
- Stable under high temperature and acid conditions
- Having neither toxin nor by-effects
- Having low-caloric value and no raising blood glucose level, especially suitable for diabetics
- No causing tooth decayed
- A wide range of application (foods, beverages, pharmaceuticals, personal care products, table-top sweeteners, etc.)
- Introducing a healthy image for final products (clean taste, tooth-protecting, sugar-free, etc.)
- Reducing production cost, maintaining or prolonging shelf-life
- Having synergistic effect when used in combination with sucrose, aspartame and other sweeteners, remarkably increasing sweetness

Applications of Vitasweet® Ace-K

Regulatory status of Vitasweet® Ace-K

- In 1967, Acesulfame-K was discovered.
- In 1983, EU approved the use of Acesulfame-K in foods and beverages.
- In 1988, FDA approved the use of Acesulfame-K in tabletop sweeteners, chewing gums and instant coffee.
- In 1992, China approved the use of Acesulfame-K in foods and beverages.
- In 1994, FDA approved the use of Acesulfame-K in syrup, baked foods and dairy products.
- In 1995, FDA approved the use of Acesulfame-K in alcoholic beverages.
- In 1998, FDA approved the use of Acesulfame-K in non-alcoholic beverages.
- In 2000, Japan approved the use of Acesulfame-K.

ADI of Acesulfame K set by FAO/WHO JECFA: 9mg/kg body weight

ADI of Acesulfame K set by FDA: 15mg/kg body weight

Maximum dosage of Acesulfame-K allowed by EU

Product	Ace-K (mg/l)	Product	Ace-K(mg/kg)
Beverage	350	Chewing gum	2000
Spirit drink	350	Cereal	1200
Cider, Apple	350	Confectionery	500
Alcohol-free beer	350	Energy-reduced jam	1000
Energy-reduced beer	25	Canned or bottled fruit	350
Brown beer	350	Preserved fruit	2000
Energy-reduced soups	110	Sauces	350
Milk-based drink	350	Baked food	350

Vitasweet® APM

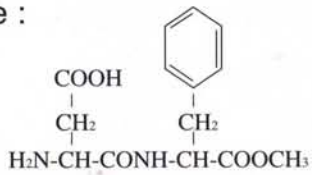
Product name : Vitasweet® APM

Synonyms : Aspartyl phenylalanine methyl ester, Aspartame, APM

Chemical name : N-L-α-Aspartyl-L-Phenylalanine-1-Methyl Ester

Chemical formula : $C_{14}H_{18}N_2O_5$

Chemical structure :



Molecular weight : 294.31

Code : GB19.004 ; INS NO.951

C.A.S. number : 22839-47-0

Characteristics and advantages:

- Intensive sweetness, 200 times as sweet as sucrose in 3% solution
- Clean sweetness without bitter, chemical or metalic after-taste
- Improving the taste profiles
- Safe sweetener with low energy
- No causing decayed tooth
- Similar digesting, assimilating and metabolizing process with that of proteins
- Long-lasting perceivable sweet taste
- Readily blending with most sweeteners to obtain ideal synergistic effect

Application of Vitasweet® APM

Regulatory status of Vitasweet® Aspartame

- In 1965, Aspartame was discovered.
- In 1981, FDA approved the use of Aspartame as tabletop sweeteners and flavor-improvers.
- In 1981, Canada approved the use Aspartame in foods and beverages.
- In 1983, FDA approved the use of Aspartame in carbonated soft drinks.
- In 1983, U.K. approved the use of Aspartame.
- In 1983, Japan approved the use of Aspartame.
- In 1986, China approved the use of Aspartame.
- In 1988, Brazil approved the use of Aspartame.
- In 1993, Aspartame was approved of use in confectioneries, baked foods, low-alcohol beer and all remaining nonalcoholic beverages.
- In 1996, FDA approved Aspartame as a "general purpose"sweetener.
  ADI of Aspartame set by FAO/WHO JECFA: 40 mg/kg body weight
  ADI of Aspartame set by FDA: 50 mg/kg body weight

Maximum dosage of Aspartame allowed by EU

Product	APM (mg/l)	Product	APM (mg/kg)
Non-alcoholic drinks	600	Desserts	1000
Spirit drinks	600	Sauces	350
Cider and perry	600	Mustard	350
Energy-reduced soups	110	Jams and jellies	1000
Brown beer	600	Confectionery	6000
Energy-reduced beer	25	Bakery products	1700

Vitasweet® TGS

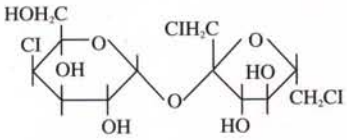
Product name : Vitasweet® TGS

Synonyms : Sucralose, Trichlorosucrose, Trichlorogalactosucrose, TGS

Chemical name : 1,6-dichloro-1,6-dideoxy- β -D-fructofuranosyl
-4-chloro-4-deoxy- α -D-galactopyranoside

Chemical formula : $C_{12}H_{19}Cl_3O_8$

Chemical structure :



Molecular weight : 397.64

Code : INS NO.955

C.A.S. number : 56038-13-2

Characteristics and advantages:

- Intensive sweetness, 600 times as sweet as sucrose in 3% solution
- Clean sweetness and tastes like sugar
- Free solubility in water and high stability
- Under room temperature, its solution with pH 5 is the most stable one among all sweeteners
- Highly stable and maintaining its sweetness during heat processing of cooking and baking
- Having low-caloric value and no raising blood glucose level, especially suitable for diabetics
- No causing tooth decayed
- Having neither toxin nor by-effects
- Readily blending with most sweeteners to obtain ideal synergistic effect

Applications of Vitasweet® TGS

Regulatory status of Vitasweet® TGS

- In 1976, Sucralose was exploited.
- In 1991, Canada approved the use of Sucralose.
- In 1997, China approved the use of Sucralose.
- In 1998, The United states FDA granted approval for Sucralose application in 15 food and beverage categories.
- In 1999, FDA approval expanded to classify Sucralose as a general purpose sweetener before mentioned 15 food and beverage categories.
- In 1999, Japan approved the use of Sucralose.
- In 2004, EU approved the use of Sucralose.

ADI of Sucralose set by FAO/WHO JECFA: 15mg/kg body weight

ADI of Sucralose set by FDA: 5mg/kg body weight

Maximum dosage of Sucralose allowed by EU

Product	TGS (mg/l)	Product	TGS(mg/kg)
Non-alcoholic drinks	300	Desserts	400
Cider, Apple	250	Confectionery	1000
Brown beer	250	Sauces	450
Energy-reduced beer	10	Mustard	140
Energy-reduced soups	45	Jams and jellies	400
Spirit drinks	250	Chewing gum	3000

Synergistic effect: 1+1>2

When used in combination with other sweeteners, Vitasweet® Ace-K , Vitasweet® APM and Vitasweet® TGS can improve taste profiles and, best of all, can provide a synergistic sweetening effect. This synergistic effect implies a cost reduction, allowing less dosage of total sweeteners to be used .

Synergistic effect of Vitasweet® Ace-K combined with other sweeteners		
	Sweeteners	Synergistic effect (up to)
Non-nutritive	Vitasweet® APM	40%
	Cyclamate	25%
	NHDC	25%
Nutritive	High fructose corn syrup	20%
	Glucose syrup	15%
	Sucrose	10%

The application examples of Viasweet® Ace-k, Vitasweet® APM and Vitasweet® TGS in food, drink, personal care products and pharmaceuticals			
Lemon juice		Lactic drink	
Sucrose	40g	Dried skimmed milk	12.2%
Vitasweet® Ace-K	0.04g	Butter	4.9%
VitaSweet® APM	0.04g	Vitasweet® Ace-K	0.010%
Concentrated citric juice	21.43g	Cyclamate	0.030%
Citric emulation	3.00g	Vitasweet® TGS	0.004%
Water	1L	Microbiological nurture	2.4%
		Water	80.456%
Chewing-gum		Ice tea	
Sorbitol	51.3%	Tea leaves	Appropriate
Gum base	34.9%	Vitamin C	10mg
Mannitol	8.1%	Ethyl maltol	1mg
Glycerol	2.8%	Vitasweet® Ace-K	40mg
Water	1.4%	Vitasweet® APM	40mg
Glavor	1.1%	Cyclamate	320mg
Vitasweet® APM	0.35%	Fructose	20mg
Alitame	0.05%	Others	Appropriate
		Soda water	Up to 1L

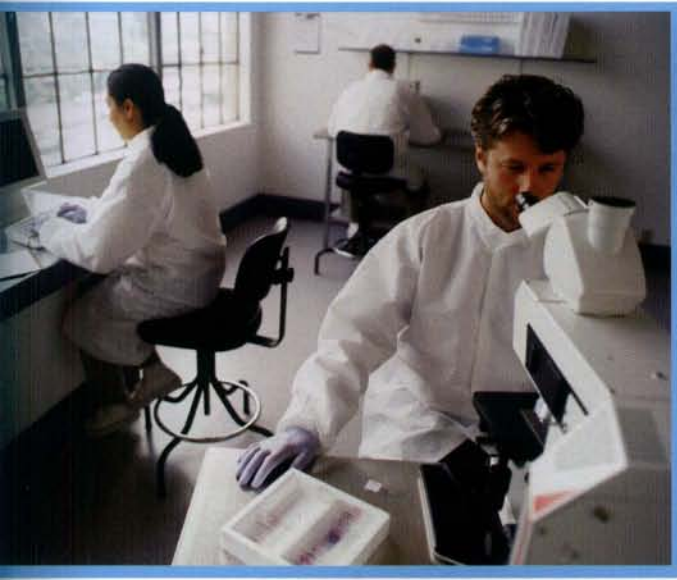
The quality of Vitasweet

Vitasweet has a group of excellent quality-control professionals, who takes rigorous, conscientious attention of the entire production process.

By inspecting and controlling the quality of raw materials as well as the final products, Vitasweet keeps up with the quality control from the start to the end of the production process in order to achieve perfection.

For years, Vitasweet has gradually gained confidence of more and more food manufacturers in the world. Likewise, clients of Vitasweet have been accepted and trusted by ever-enlarging number of consumers.

With its high-quality product and excellent service, Vitasweet has won its worldwide credit in the field of food ingredients.



Vitasweet keeps meeting the demands of the developing market with high quality products

The distribution of Vitasweet

Vitasweet has an amplified and complete distribution network. Its clients spread all over Asia, Europe, America, Africa and Australia.

As a reliable partner , it provides not only high-quality products, but also a complete technical support, including product formulation, problem solutions, and final products evaluation. Combined efforts mutually will bring its customers' products a better development and a broader market.

Vitasweet will back you up
with complete pre/after-sale service