

# Aspartame Granular

## DESCRIPTION

Aspartame is N-L-alpha-Aspartyl-L-phenylalanine-1-methyl ester. It is a white, crystalline powder or granular material that has a sweet taste. It is sparingly soluble in water and slightly soluble in alcohol. The pH of a 0.8% solution is between 4.5 and 6.0. SinoSweet® Aspartame has a clean, sweet taste that is approximately 180 to 200 times sweeter than sugar.

Formula:  $C_{14}H_{18}N_2O_5$

CAS: 22839-47-0

EINECS Number: 245-261-3

Molecular Weight: 294.31

E Number: E951

Flashpoint: Not Applicable

## SUGGESTED USES

Carbonated Soft Drinks, Juices, where instance solubility is not required.

Test Item	Specification	Test Method / Reference
Appearance	White Granular	Visual
Odor/Taste	Conforms to Quality Standards	Internal Method
Identification	Meets Requirements	Current FCC / USP/NF / JECFA / EP
Assay (on dry basis)	98.0% to 102%	Current FCC / USP/NF / JECFA / EP
Loss on Drying	≤ 4.5%	Current FCC / USP/NF / JECFA / EP
Residue on Ignition / Sulphated Ash	< 0.2%	Current FCC / USP/NF / JECFA / EP
Optical (Specific) Rotation	+14.5° and +16.5°	Current FCC / USP/NF / JECFA / EP
Conductivity	≤ 30 µScm-1	EP
Transmittance	≥ 95%	Current USP/NF / JECFA
Extraneous Matter	Free From Material Foreign to Product	Free From Visual Evidence
pH (0.8% Solution)	4.5 ~6.0	Current FCC/JECFA
Heavy Metal (as Pb)	≤ 10 ppm	Current USP/NF / JP / EP
Lead	< 1 ppm	Current FCC / JECFA
Arsenic	< 3 ppm	Current FCC
Residual Solvents	Meets Requirements	Current USP/NF
5-benzyl-3,6-dioxo-2-Piperazineacetic Acid (DKP)	≤ 1.5%	Current USP / NF / FCC / JECFA
Other Related Substances	≤ 2.0% USP/NF; ≤ 1.5% EP	Current USP/NF
L-phenylalanine	≤ 0.5%	Current EP
Solubility	Completely Dissolves	Internal Method
Particle Size	NMT 3.5% on 20 mesh 90.0 - 100.0% on 60 mesh NMT 3.5% thru 80 mesh	Internal Method
Bulk Density	0.5 +/- 0.1 g/mL	Internal Method
Total Aerobic Plate Count	≤ 250 CFU/g	GB
Yeast and Mold Count	≤ 100 CFU/g	GB
Coliforms	≤ 3.0 MPN/g	GB
Escherichia Coli	Negative/g	GB
Salmonella	Negative/25g	GB

CFU = Colony Forming Units  
JP = Japanese Pharmacopeia  
FCC = Food Chemical Codex

EP = European Pharmacopeia  
USP/NF - United States Pharmacopeia-  
National Formulary

GB = China National Standard Method  
JECFA = Joint FAO/WHO Expert  
Committee on Food Additives

**apura**  
ingredients

sales@apuraingredients.com  
**apuraingredients.com**



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## CONFORMITY WITH

FAO-WHO Specifications  
Food Chemicals Codex  
European Commission Regulation No. 231/2012  
Japanese Standards for Food Additives  
US Pharmacopoeia  
This material is Kosher Pareve and Halal Certified

## PACKAGING

25 kg net weight fiber drums with inner liner or as otherwise agreed upon.

## SHIPPING & HANDLING

Recommended to be stored in an odor-free environment. Low humidity conditions are recommended to minimize caking/degradation potentials.

## STORAGE

Aspartame should be stored in a cool, dry ambient environment. Avoid high heat.

## SHELF LIFE

The shelf life of this material is 5 years from the date of manufacture if stored in ambient room temperature conditions. Product should be reevaluated if it exceeds expiration date.

## LOT CODE EXPLANATION

Example: 16052924  
Plant 1  
16 = Year (2016)  
05 = Month (May)  
29 = Day (29th day of month)  
24 = Batch (24th batch)

Example: W16052924  
W = Plant 2  
16 = Year (2016)  
05 = Month (May)  
29 = Day (29th day of month)  
24 = Batch (24th batch)

## NUTRITIONAL DATA

Nutrient	Per 100 grams
Water(g)	4.5
Protein(g)*	95.3
L-Phenylalanine(g)	53.5
All Fats(g)	0
Ash(g)	<0.2
Calories(kcal)	381
Carbohydrates(g)	0
Sugar(g)	0
Dietary Fiber(g)	0
Cholesterol (mg)	0
Calcium(mg)	<2
Iron(mg)	<2
Potassium(mg)	<10
Sodium(mg)	≤ 30
Vitamins	0

This data is calculated from standard analytical data. The zero values are based on process knowledge and raw materials used.

\*Aspartame is a protein and is digested and metabolized like a simple protein.

