

HYET ASPARTAME FINE GRANULAR 150



EFFECTIVE DATE: Oct 1ST 2015

SUPERSEDES : N/A

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DESCRIPTION: Aspartame is a nutritive sweetener based on two amino acids. It is metabolized like a food protein. Aspartame is a white or almost white crystalline substance, approximately 200 times sweeter than sugar. Aspartame provides a clean sugar-like sweetness, without any bitter or metallic aftertaste.

TRADE NAME: **HYET Aspartame Fine Granular 150**

PRODUCT SYNONYMS: **Aspartame**; Aspartyl Phenylalanine methyl ester, APM

CHEMICAL NAMES: N-L- α -Aspartyl-L-Phenylalanine -1- methyl ester
Or 3-Amino-N-(α -carbomethoxy-Phenethyl)-succinamic acid-N-methyl ester

INS: 951 or E 951 in EU Molecular Formula: $C_{14}H_{18}N_2O_5$
EINECS Number: 245-261-3 Molecular Weight: 294.3 g/mol
CAS Number: 22839-47-0
Solubility: Sparingly or slightly soluble in water and in alcohol, practically insoluble in hexane and in methylene chloride

TESTS:	METHODOLOGY:	SPECIFICATIONS:	TYPICAL ANALYSIS:(1)
• IDENTITY:			
Infrared test	FCC/JSFA	Conform to standard	Conform to standard
• PURITY:			
Assay (dried basis)	FCC/JSFA/EU/JECFA	98.0 % - 102.0 %	> 99 %
Loss on drying	FCC/JSFA/EU/JECFA	≤ 4.5 %	< 3.2 %
5-benzyl-3,6-dioxo-2-piperazineacetic acid (DKP)	EP	≤ 1.5 %	< 0.2 %
Residue on ignition	FCC/JSFA	≤ 0.2 %	< 0.2 %
Heavy metals (as lead)	EP/USP	≤ 10 mg/kg	< 10 mg/kg
Arsenic	EP	≤ 3 mg/kg	< 3 mg/kg
Lead	HS	≤ 1 mg/kg	< 1 mg/kg
Specific rotation	FCC/JSFA/EU/JECFA	+14.5° to +16.5°	15.3°
Transmittance	EU/JECFA	≥ 95.0 %	> 99 %
pH	FCC/JSFA/EU/JECFA	4.5 - 6.0	5.3
Conductivity	EP	≤ 30 $\mu S.cm^{-1}$	< 15 $\mu S.cm^{-1}$
Related substances (2)	USP/EP	≤ 2.0 % USP; ≤ 1.5 % EP	< 2.0 % USP; < 1.5 % EP
L-Phenylalanine	EP	≤ 0.5 %	< 0.5 %
Others optical isomers	HS	≤ 0.04 %	< 0.01 %
Residual solvents	HS	Meets requirements	Meets requirements
Appearance of solution	EP	Clear and NMT GY6	Clear and NMT GY6
• MICROBIOLOGICAL PROPERTIES:			
Total Aerobic Bacteria	HS	≤ 250 cfu/g	< 10 cfu/g
Yeast and Mold	HS	≤ 100 cfu/g	< 10 cfu/g
Coliforms	HS	≤ 10 cfu/g	Negative/g
E-Coli	HS	Negative/g	Negative/g
Salmonella	EXT LAB	Negative/25g	Negative/25g
• PHYSICAL PROPERTIES:			
Particle size	HS	≤ 1 % on 300 μm ≤ 50 % through 150 μm ≤ 10 % through 75 μm	≤ 1 % on 300 μm ≤ 50 % through 150 μm ≤ 10 % through 75 μm
Bulk density	HS	0.55 ± 0.1 kg/l	0.52 – 0.60 kg/l

FCC = Food Chemical Codex JSFA = Japanese Standard for Food Additives JECFA = Joint FAO/WHO Expert Committee on Food Additives
EU = Commission Regulation EXT LAB = External Laboratory HS = HYET Sweet S.A.S.
EP = European Pharmacopoeia USP = US Pharmacopoeia

(1) "Typical Analysis": Not to be considered as a guarantee

(2) Other names: Chromatographic Purity or Other Related Impurities; USP&FCC/EP different definition: USP&FCC include L-Phenylalanine; EP does not include L-Phenylalanine.

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CONFORMITY WITH: FAO-WHO Specifications;
Food Chemicals Codex;
EU Commission Regulation 231/2012;
Japanese Standards for Food Additives.
Note: current version specified on CoA

SHELF LIFE: 5 years at ambient room temperature (15°C - 30°C, 35 - 75 % relative humidity), when properly stored in sealed and original container. Product should be reevaluated after this period. Do not store near products with a strong odor.

PACKAGING: Standard packaging: 25 kg recyclable cardboard box with double-liner polyethylene inner sacks and safety seal, 12 boxes on 2 levels per Euro pallet, boxes are designed to be stacked no more than 2 pallets high. Further packaging units are possible e.g. in big bags.

LOT CODING: Example Lot **FGE510010:**
FGE= Aspartame Fine Granular 150
5 = Year manufactured: 2015
10 = Month manufactured: October
01 = Day manufactured: 01st day of month
0 = Optional plant code

NUTRITIONAL INFO: HYET Aspartame is chemically pure and contains no additives, preservatives or colors.

NUTRIENT:	PER 100 g:
Water	< 4.5 g
Protein ⁽¹⁾	95.3 g
L-Phenylalanine ⁽²⁾	56 g
Fat	0 g
Carbohydrates	0 g
Fibers	0 g
Ash	< 0.2 g
Cholesterol	0 mg
Calcium	< 2 mg
Iron	< 2 mg
Potassium	≤ 10 mg
Sodium	≤ 30 mg
Vitamins	0 mg
Calories /Joules	382 kcal / 1600 kJ

(1) Aspartame is a dipeptide, which is digested and metabolized like a protein.
 (2) Phenylalanine is an essential amino acid; required intake for adults: > 1 g/day

SAFETY: High safety based on ADI level; SCF / JECFA = 40; FDA = 50
 ADI = Acceptable Daily Intake (mg/kg body weight/day)

REGULATORY: Worldwide Approval (> 100 countries) / In USA: GMP

LABELING: **In EU:**

- On ingredient list: " Sweetener aspartame" or "Sweetener E 951"
- Additional notice: "Contains a source of Phenylalanine"
- Close to the sales denomination: "with sweetener"
- For blends of sugar and aspartame: "with sugar and sweetener" close to sales denomination
- No Hazard pictogram mandatory as not classified as a dangerous substance.

Further information relating to the laws and regulations of individual countries can be obtained from HYET Sweet S.A.S.