

Niutang Aspartame: Powder

FORMULA: C₁₄H₁₈N₂O₅ MOLECULAR WEIGHT: 294.31

CAS: 22839-47-0 **E NUMBER**: E951

EINECS NUMBER: 245-261-3 **FLASHPOINT:** Not Applicable

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. Niutang Aspartame has a clean, sweet taste that is approximately 200 to 300 times sweeter than sugar.

This material is Kosher, Pareve and Halal Certified.

SUGGESTED USES/APPLICATIONS:

Powdered Soft Drinks, Dry Mixes, Yogurts, Ice Cream, Desserts

SPECIFICATIONS:

| Test Item | Specification | Test method or Reference |
|--|---------------------------|------------------------------|
| Identification | Meets Requirements | Current FCC / USP-NF / JECFA |
| Assay (on dry basis) | 98.0% to 102.0% | Current FCC / USP-NF / JECFA |
| Loss on Drying | ≤ 4.5% | Current FCC / USP-NF / JECFA |
| Residue on Ignition / Sulphated Ash | ≤ 0.2% | Current FCC / USP-NF / JECFA |
| Optical (Specific) Rotation | +14.5° and +16.5° | Current FCC / USP-NF / JECFA |
| Transmittance | ≥ 0.95 | Current USP-NF /JECFA |
| pH (0.8% Solution) | 4.5~6.0 | Current FCC/JECFA |
| Heavy Metal (as Pb) | ≤ 10 ppm | Current USP-NF |
| Lead | ≤ 1 ppm | Current FCC/JECFA |
| Arsenic | ≤ 3 ppm | Current FCC |
| 5-benzyl-3,6-dioxo-2- Piperazineacetic Acid (DKP) | ≤ 1.5% | Current USP-NF / FCC / JECFA |
| Chromatographic Purity(USP-NF) Other Related Impurities(FCC) | ≤2.0% USP-NF/FCC | Current USP-NF/FCC |
| Residual Solvents | Meets Requirements | Current USP-NF |
| 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 |
| Particle Size | ≤ 1% Retained on 100 Mesh | Niutang Internal Method |
| Bulk Density | 0.3 +/- 0.1 g/mL | Niutang Internal Method |

FCC = Food Chemical Codex CFU = Colony Forming Units GB = National Standard Method USP-NF = United States Pharmacopeia-National Formulary MPN = Most Probable Number JECFA = Joint FAO/WHO Expert Committee on Food Additives

pg 1



Niutang Aspartame: Powder

CONFORMITY WITH: FAO-WHO Specifications

Food Chemicals Codex Standards for Food Additives

US Pharmacopoeia

PACKAGING:

25-kg cardboard drums with two PE liner bags 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 CODING:

Example Lot: A1501025P A = Aspartame

> 15= Year Manufactured: 2015 01 = Month Manufactured: January 025 = Batch Manufactured: #025

P= Powder

NUTRITIONAL DATA:

Niutang Aspartame is chemically pure and contains no additives, preservatives or colors.

| 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.