Centella Asiatica Extract Specification Sheet

Product Definition

Centella Asiatica Extract is a natural plant extract rich in active ingredients such as total asiaticosides and madecassoside. It is prepared from the dried whole herb of *Centella asiatica* (L.) Urban of the Apiaceae family through standardized processes including comminution, extraction, purification and drying.

1. Basic Product Information

- Product Name: Centella Asiatica Extract
- English Name: Centella Asiatica Extract
- CAS No.: 84696-21-9 (Total Asiaticosides)
- Molecular Formula: $C_{44}H_{64}O_{19}$ (Madecassoside)
- Molecular Weight: 917.0 (Madecassoside)
- Botanical Source: Dried whole herb of *Centella asiatica* (L.) Urban from the Apiaceae family
- Extraction Part: Dried whole herb
- Appearance & Character: Light brown to yellowish brown fine powder, free of visible impurities, with characteristic herbal odor and no off-flavor

2. Specification

Core Technical Specifications

- Total Asiaticosides Content: ⩾10.0% (on dry basis, HPLC)
- Madecassoside Content: ⩾5.0% (on dry basis, HPLC)
- Asiaticoside Content: ⩾3.0% (on dry basis, HPLC)
- Moisture: ⩽5.0% (Oven Drying Method)
- Ash Content: ⩽5.0% (Residue on Ignition Method)
- Acid-Insoluble Ash: ⩽1.0% (Residue on Ignition Method)

Heavy Metal Indexes

- Total Heavy Metals: ⩽10.0 mg/kg
- Lead (Pb): ⩽2.0 mg/kg
- Arsenic (As): ⩽1.0 mg/kg
- Mercury (Hg): ⩽0.1 mg/kg
- Cadmium (Cd): ⩽0.3 mg/kg

Pesticide Residue & Microbial Limits

- Pesticide Residue: Complies with the requirements for plant extracts in *Chinese Pharmacopoeia 2025 Edition*, tested by GB/T 23204
- Total Aerobic Bacteria: ⩽1000 CFU/g
- Molds & Yeasts: ⩽100 CFU/g
- Coliforms: Not Detected
- Salmonella: Not Detected
- Staphylococcus aureus: Not Detected

Other Indexes

- Particle Size: ⩾95% passing through 80-mesh sieve (Sieving Method)
- Solubility: Freely soluble in methanol and ethanol, slightly soluble in water, very slightly soluble in ether; verified by visual method combined with solubility determination

3. Application Scope

1. Functional Food: Raw material for skin repair and microcirculation-improving dietary supplements, compressed candies, solid beverages, oral liquids, etc.
2. Health Food: Raw material for health food approved with skin repair and antioxidant effects
3. Pharmaceutical Raw Material: Raw material for Chinese patent medicines for traumatic injuries and blood circulation activation, as well as external pharmaceutical excipients
4. Cosmetics: Raw material for repair, soothing and antioxidant skin care products such as serums, creams, facial masks, body lotions, etc.

4. Packaging Specification

- Inner packing: Food-grade aluminum foil bag
- Outer packing: Paper drum
- Routine specification: 25kg/drum
- Customizable: 1kg/bag, 5kg/bag, 10kg/bag, etc. (per customer requirements)

5. Shelf Life

24 months (in original sealed packaging)

6. Storage Conditions

Sealed and stored in a cool, dry and well-ventilated place with temperature ⩽25℃ and relative humidity ⩽60%. Avoid direct sunlight, high temperature, high humidity, and keep away from oxidants and odorous substances.

7. Transportation Method

Transported at room temperature; avoid rain, insolation, heavy pressure and violent collision. Complies with transportation specifications for general chemical products, **non-hazardous goods**.

Notes

This product complies with the following standards and specifications:

- China: ChP/GB
- International: WHO
- USA: USP/cGMP/FCC
- EU: EP/EU FC
- Japan: JP FC

Nutrition Composition Table of Centella Asiatica Extract

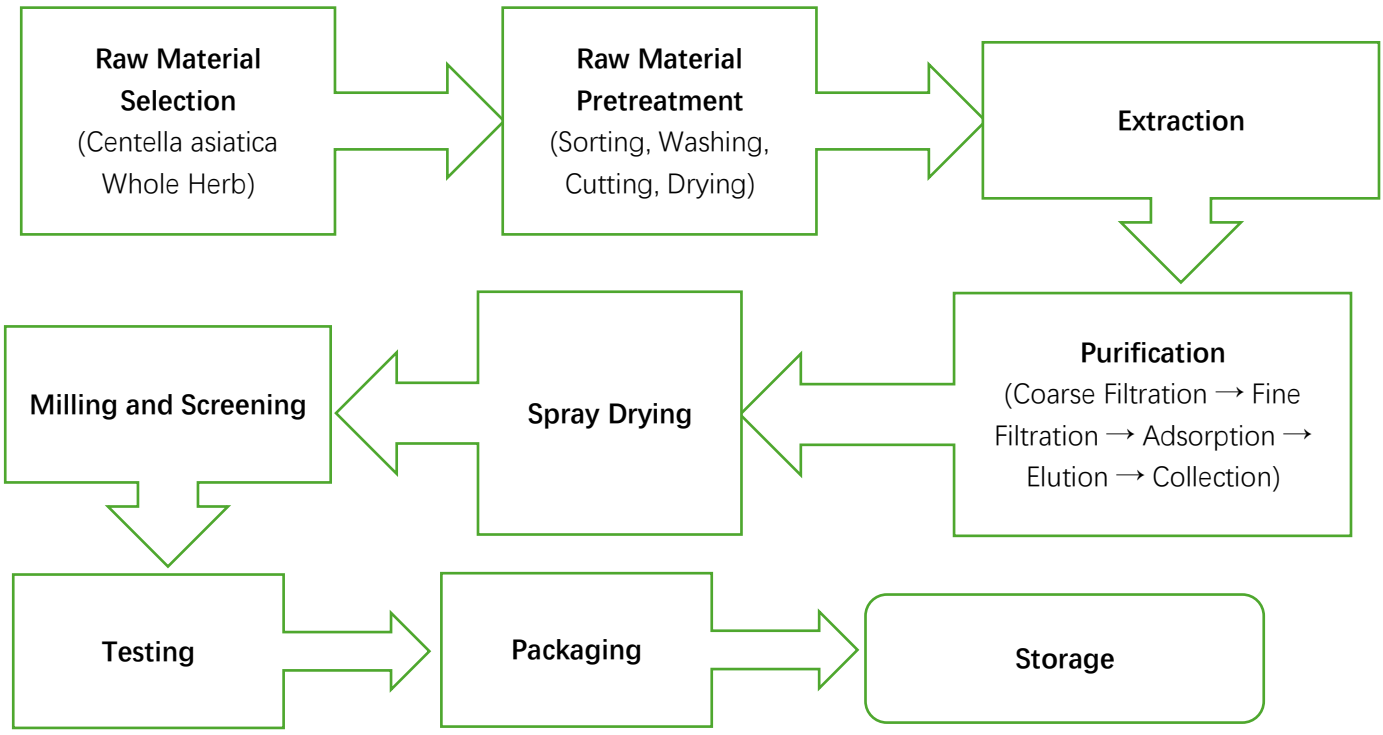
Reference Standard: Per 100 grams (g)

Nutritional Components	Content	Nutrient Reference Value % (NRV%)
Energy	⩽1500 kJ	⩽18%
Protein	⩽3.0 g	⩽5%
Fat	⩽0.8 g	⩽1%
Carbohydrates	⩽12.0 g	⩽4%
Dietary Fiber	⩾6.0 g	⩾24%
Sodium	⩽50 mg	⩽3%
Total Asiaticosides (Functional Ingredient)	⩾10.0 g	—
Madecassoside (Functional Ingredient)	⩾5.0 g	—
Total Flavonoids (as Rutin)	⩾8.0 g	—
Ash Content	⩽5.0 g	—
Moisture	⩽5.0 g	—

Notes

1. This table is compiled based on test data of Centella Asiatica Extract with 10% total asiaticosides. The content of functional ingredients in other specifications (5%/20%/30% total asiaticosides) is adjusted proportionally, with slight fluctuations in basic nutrient content.
2. The symbol "—" indicates no national specified NRV for the functional ingredient.
3. Total flavonoids are auxiliary functional indicators, with slight fluctuations depending on raw material producing areas and harvesting seasons.

Production Process Flow Chart of Centella Asiatica Extract



Explanation of Key Process Control Points

1. **Raw Material Selection**: Select high-quality dried whole herb free of mildew, diseases, pests and impurities; fix raw material supply from core producing areas.
2. **Low-Temperature Drying**: Strictly control drying temperature to avoid thermal decomposition of active ingredients.
3. **Alcohol-Water Extraction**: Precisely control ethanol concentration and extraction temperature to maximize retention of total asiaticosides, madecassoside and other active ingredients.
4. **Resin Purification**: Adopt special macroporous resin to improve the purity of active ingredients and remove impurities effectively.
5. **Spray Drying**: Precisely control inlet and outlet air temperature to ensure powder fluidity and stability of active ingredients.
6. **Full-Item Testing**: Conduct factory full-item testing for each batch; only qualified products can be packaged and warehoused.