Hops Extract

Humulus lupulus · Flower

INDICATIVE SPECIFICATION — CONFIRMED IN WRITING AT QUOTATION

BOTANICAL SOURCE	SOURCE / PART	PRIMARY MARKER	METHOD
Humulus lupulus	Flower	Alpha acids	HPLC
MINIMUM ORDER	**LEAD TIME**	**STANDARD PACK**	**DOCUMENT SET**
1 kg	1–7 days	1 kg foil pouch	COA, TDS, SDS, statements

SPECIFICATION

PARAMETER	SPECIFICATION	METHOD / NOTE
Alpha acids	10% (HPLC)	HPLC
Plant part	Flower	Declaration
Extraction	Water–ethanol	Process
Particle size	80 mesh, other sizes on request	Sieve
Marker compounds	Humulone, lupulone, flavonoids	Identity / profile
Appearance	Yellow-brown to brown powder	Visual
Solubility	Partially water-soluble; suitable for capsules and blends	Matrix dependent
Standard packaging	1 kg foil pouch · 25 kg fiber drum · 5 kg carton	Food-grade liner

APPLICATIONS

- Sleep capsules
- Calm and relaxation blends
- Herbal teas
- Gummies

AVAILABLE FORMS

- Spray-dried powder
- Granulated powder

WHAT TO CONFIRM BEFORE ORDERING

- Alpha acids and flavonoid totals are different specifications; agree which one the label will reference.
- Hops has a pronounced bitterness and aroma; taste-mask testing belongs in the sample stage.

Indicative document. This sheet describes the grade we can quote; it is not a batch COA and does not confirm a specific result for a specific lot. Final specification, contaminant limits, and documentation are agreed in writing before the order. Source, part, carrier, and marker method are release parameters, not marketing descriptions.

DOCUMENTATION RELEASED WITH EACH LOT

DOCUMENT	CONTENT	SCOPE
Certificate of analysis	Identity, assay, physical parameters, contaminants, methods, limits, and release decision.	Batch-specific
Technical data sheet	Botanical source, plant part, carrier, solubility, storage, packaging, and applications.	Product-level
Safety data sheet	Sixteen sections covering hazards, handling, storage, transport, and emergency response.	Grade-specific
Allergen and GMO statements	Major allergens, gluten, animal-derived inputs, and GMO status.	Batch-specific
Origin and traceability record	Herb lot reference and the link to the manufacturing lot.	Batch-specific
Halal, Kosher, organic	Certificates where the grade and facility are covered; organic also requires a transaction certificate.	Per certificate scope

TESTING APPROACH

- **Identity:** macroscopic and TLC fingerprint against a reference.
- **Assay:** HPLC or UV-VIS with the method and basis stated on the COA.
- **Physical:** appearance, moisture, ash, mesh, bulk density, and flow.
- **Contaminants:** heavy metals by ICP-MS, residual solvents by GC, pesticide panel by LC-MS/MS and GC-MS/MS.
- **Microbiology:** TPC, yeast and mould, E. coli, and Salmonella, with additional organisms as agreed.
- **Verification:** third-party testing available for new suppliers and high-value grades.

HOW TO REQUEST THIS GRADE

01 · BRIEF

Send the target specification, quantity, application, and destination market.

02 · COUNTER-SPEC

We confirm what can be matched and list the documents available for the grade.

03 · SAMPLE & QUOTE

A sample with its own COA, followed by price break points and lead time in writing.

Contact. Email info@rainwoodbio.com with the product name and the destination market. We reply within one business day. The specification index and further technical notes are available at ingredients.rainwoodbio.com.