

## Certificate of Analysis

### (Representative Sample Certificate)

**Product Name:** Hops Extract  
**INCI Name:** Humulus Lupulus (Hops) Extract  
**CAS Number:** 8016-25-9, 8060-28-4, 56-81-5, 7732-18-5, 122-99-6  
**Lot Number:** Not available (data may vary slightly with different lots or batches)  
**Expiration Date:** 24 months from production date

Property	Specification	Analysis
Specific Gravity @ 25° C	1.05-1.20	1.12
Refractive Index @ 25° C	1.3920-1.5000	1.3957
pH @ 25° C	4.0-7.0	5.43
General Appearance @ 25° C	Light to medium amber liquid	Pass
Odor	Characteristic	Pass
Solubility in Water	Complete	Pass
Microbial Plate Count	<100 CFU/g	Pass

The above data were obtained using the test indicated and is subject to the deviation inherent in the test method. Results may vary under other test methods or conditions.

This report is not to be signed.

All data are as per our supplier.

**Disclaimer:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.