BIORUŽA, s. r. o.

Laborecká 1, 010 01 Žilina, IČO: 52234070, IČ DPH: SK2120953802, tel .: 00421 905 864 140, info@emerosa.sk

CERTIFICATE OF ANALYSIS- Private Laboratory

SUBSTANCE IDENTIFICATION

Name:	CARAWAY OIL (Carum carvi)
Product code:	4284
INCI:	Carum Carvi Oil
CAS Nr.:	8000-42-8
EINECS Nr. :	607-245-8 / -
Batch :	CO 01/2024
Production date:	06 2025
Expiration date:	06 2029
Specification:	Ph Eur 11.0

GENERAL CHARACTERISTICS :

Type of product:	100% Natural essential oil
Quality:	Conventional product
Botanical name:	Carum carvi L.
Type of production:	Water steam distillation
Plant part:	Fruits
Country of origin:	Hungary

SENSORICAL CHARACTERISTICS :

Parameter	Specification requirements	Result
Appearance	Colourless to yellow liquid	Complies
Odor	Characteristic	Complies

PHYSICAL CHARACTERISTICS

Parameter	Specification requirements	Result
Specific density (20°C)	0.904-0.920	0.910
Refractive index (20°C)	1.484-1.490	1.487
Optical rotation (20°C)	+65 to +81°	+75.5°
Acid value	max 1.0	Complies

PURITY

Parameter	Parameter	Result
Fatty acids and resinfied essential oils	Not present	Complies
Additives	Not present	Complies

CHEMICAL CHARACTERISTICS (GC-FID)

Parameter	Specification requirements	Result
β Myrcene	0.1-1.0 %	0.2 %
Limonene	30.0-45.0 %	43.4 %
Trans-Dihydrocarvone	max 2.5 %	1.0 %
Carvone	50.0-65.0 %	54.2 %
Trans-Carveol	max 2.5 %	0.1 %

PACKAGING AND STORAGE

Parameter	Requirements
Standard packaging	ALU, HDPE
Storage	In tight closed and full containers, at cool, dry and well ventilated place below 25°C
Reanalysis	When opened for more than 24 months quality should be checked before use.

ASSESSMENT

Quality conforms to the specification.