

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by Intertek. Certificate Number. 2317548

Catalogue Number	15068
Lot Number	A0458668
Description	D(+)-Carvone,96%,natural
CAS Number	2244-16-8
Quality Test/Release Date	05/Jul/2025
Suggested retest date	05/Jul/2028
Country of Origin	GERMANY
Declaration of Origin	plant
BSE/TSE	product is derived from non gmo essential oil

Result Name	Units	Specifications	Test Value
Appearance (Color)		Clear colorless to light yellow	Clear light yellow
Appearance (Form)		Liquid	Liquid
Appearance		May darken on storage	May darken on storage
Infrared spectrum		Conforms	Conforms
GC	%	>=95	99.7
Refractive index		1.4960 to 1.5010 (20°C, 589 nm)	1.4991 (20°C, 589 nm)
Specific gravity		(25°C) 0.953 to 0.962	(25°C) 0.96
Specific optical rotation		+52.0° to +62.0° (20°C, 589 nm) (neat)	+58.8° (20°C, 589 nm) (neat)

Geert Torfs
Supervisor, QC

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.