



NHR ORGANIC OILS
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Product Specification
Organic Juniper Needle Essential Oil
(Juniperus communis)

Product name:	JUNIPER ESSENTIAL OIL – NEEDLE
INCI:	Juniperus communis Needle/Leaf Oil
CAS number:	8002-68-4
EC number:	283-268-3
FEMA number:	2604
HS Code:	3301 29 41
Food grade:	FDA Regulation: FDA PART 182 -- SUBSTANCES GENERALLY RECOGNIZED AS SAFE Sec. 182.20 Essential oils, oleoresins (solvent-free), and natural extractives (including distillates) IOFI: listed in Part 2 of the IOFI GRL as natural complex substance that have undergone a safety evaluation and have been reviewed and determined to be safe for flavour use in food
CFR:	21CFR182.20
COE:	249
Quality:	Organic (Organic certificate available upon request)
Classification:	Natural substance
Authenticity:	100% pure and natural product
Part of plant used:	Needles/Leaves
Yield:	1 t raw material — 2.8 kg oil
Method of manufacture:	Steam distillation
Seasonal harvesting:	February—November
Country of origin:	Bulgaria

Appearance:	Easy flowing clear liquid
Colour:	Light yellow to yellow–green
Aroma:	Pleasant, balm-like fresh, typical of Juniper
<u>PHYSICO-CHEMICAL INDICES:</u>	
Relative density, g/cm³:	From 0.857 to 0.872
Refractive index (20 °C):	From 1.471 to 1.483
Optical rotation (20 °C), °:	From – 15 to 0
Solubility in 95% ethanol (V/V):	1:10
Acid value, mg KOH/g:	No more than 2
Ester value, mg KOH/g:	Not less than 12
<u>CONTENT OF MACROCOMPOUNDS, % (by Gas – Chromatography):</u>	
A-pinene	From 25 to 50
B-pinene	From 0.5 to 17
Sabinene	From 3 to 20
B-myrcene	From 3 to 22
Limonene	From 2 to 8
Bornyl acetate	From 0.2 to 2
Terpinene-4-ol	From 1 to 6
B-Caryophyllene	From 0.2 to 3.4

Storage:	Keep in well-sealed containers at 5 – 20 °C, away from sources of heat and direct light.
Application:	In perfumery, medicine, cosmetics, aromatherapy, flavouring