# CERTIFICATE OF ANALYSIS

COA*




## BEWIT Clove

**Czech:** Hřebíček, list esenciální olej
**Latin:** Caryophyllus aromaticus

Batch number: AX2024/11

CTEO

★★★★★
QUALITY
GUARANTEED

We have developed our own set of standards and protocols CTEO® – **CERTIFIED THERAPEUTIC ESSENTIAL OILS** to monitor, check and evaluate the quality of our essential oils. Our goal is to consistently offer our customers essential oils in the best and most beneficial quality.

## Certificate of analysis disclaimer

COA is a document published by BEWIT Natural Medicine, s.r.o., which contains both general and specific information about essential oils and other BEWIT products. The COA includes information from literary publications and other publicly available sources as well as selected sensometric analyses from BEWIT laboratories (BEWIT ESSENTIAL LABORATORIES), supplier analyses and, in some cases, tests from independent laboratories. The COA published for a given product may not always match the product batch on offer at BEWIT at the time and may not always describe all batches of the given product that may be on offer at the time.

**BEWIT Natural Medicine, s.r.o.** ID: 29443237
Michalská 2030
710 00 Ostrava
Czech Republic
VAT ID: CZ29443237
info@bewit.love
www.BEWIT.LOVE

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# General information

| Batch number | AX2024/11 |
|---|---|
| **English** | BEWIT Clove |
| **Czech** | Hřebíček, list esenciální olej |
| **Latin** | Caryophyllus aromaticus |
| **Country of origin** | Indonesia |
| **Part of a plant** | Leaves |
| **Method of acquisition** | Steam distilled |
| **Color** | Yellow to brown |
| **Odor** | Characteristic |
| **cas number** | 8015-97-2 / 8000-34-8 / 84961-50-2 |
| **Main components** | Eugenol |
| **Refractometric index** | 1,520-1,540 |
| **Specific gravity** | 1,028-1,041 |
| **Optical rotation** | -1,5° to -0° |
| **Flash point (°C)** | >100 |

# General information

## Components

| COMPOUND | RELATIVE CONTENT (%) |
|---|---|
| Eugenol | 74,5 |
| β-Caryophyllene | 20,0 |
| α-Humulene (α-Caryophyllene) | 2,2 |
| Isoeugenyl acetate | 0,8 |
| Methyl cinnamate | 0,5 |
| δ-Cadinene | 0,2 |

# List of cosmetic allergens

| Allergen INCI name | | CAS number | % |
|---|---|---|---|
| Benzyl Alcohol | - | 100-51-6 | -- |
| 6-Methyl Coumarin | - | 92-48-8 | -- |
| Amyl Cinnamal | - | 122-40-7 | -- |
| Cinnamyl Alcohol | - | 104-54-1 | -- |
| Citral | Citral<br>Geranial<br>Neral | 5392-40-5<br>141-27-5<br>106-26-3 | -- |
| Eugenol | - | 97-53-0 | 74,5 |
| Hydroxycitronellal | - | 107-75-5 | -- |
| Isoeugenol | Isoeugenol<br>Trans-Isoeugenol<br>Cis-Isoeugenol | 97-54-1<br>5932-68-3<br>5912-86-7 | -- |
| Amylcinnamyl Alcohol | - | 101-85-9 | -- |
| Benzyl Salicylate | - | 118-58-1 | -- |
| Cinnamal | - | 104-55-2 | -- |
| Coumarin | - | 91-64-5 | -- |
| Geraniol | - | 106-24-1 | -- |
| Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde | - | 51414-25-6 / 31906-04-4 | -- |
| Anise Alcohol | - | 105-13-5 | -- |
| Benzyl Cinnamate | - | 103-41-3 | -- |
| Farnesol | - | 4602-84-0 | -- |
| Linalool | - | 78-70-6 | -- |
| Benzyl Benzoate | - | 120-51-4 | -- |
| Citronellol | Citronellol<br>D-Citronellol<br>L-Citronellol | 106-22-9 / 26489-01-0<br>1117-61-9<br>7540-51-4 | -- |
| Hexyl Cinnamal | - | 101-86-0 | -- |
| Limonene | Limonene<br>D-Limonen<br>L-Limonen | 138-86-3 / 7705-14-8<br>5989-27-5<br>5989-54-8 | -- |
| Methyl 2-Octynoate | - | 111-12-6 | -- |
| Alpha-Isomethyl Ionone | - | 127-51-5 | -- |
| Evernia Prunastri Extract | - | 90028-68-5 | -- |
| Evernia Furfuracea Extract | - | 90028-67-4 | -- |

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| | | | |
|---|---|---|---|
| Pinus Mugo | Pinus Mugo Leaf Oil; Pinus Mugo Twig Leaf Extract; Pinus Mugo Twig Oil | 90082-72-7 | -- |
| Pinus Pumila | Pinus Pumila Needle Extract; Pinus Pumila Twig Leaf Extract; Pinus Pumila Twig Leaf Oil | 97676-05-6 | -- |
| Cedrus Atlantica Oil/Extract | Cedrus Atlantica Bark Extract; Cedrus Atlantica Bark Oil; Cedrus Atlantica Bark Water; Cedrus Atlantica Leaf Extract; Cedrus Atlantica Wood Extract; Cedrus Atlantica Wood Oil | 92201-55-3 / 8023-85-6 | -- |
| Turpentine | - | 9005-90-7 / 8006-64-2 / 8052-14-0 | -- |
| Alpha-Terpinene | - | 99-86-5 | -- |
| Terpinolene | - | 586-62-9 | -- |
| Myroxylon Pereirae Oil/Extract | Myroxylon Balsamum Pereirae Balsam Extract; Myroxylon Balsamum Pereirae Balsam Oil; Myroxylon Pereirae Oil; Myroxylon Pereirae Resin Extract; Myroxylon Pereirae Resin | 8007-00-9 | -- |
| Rose Ketones | Alpha-Damascone<br>Cis-Rose Ketone 1<br>Trans-Rose Ketone 1<br>Rose Ketone 4 (Damascone)<br>Rose Ketone 3 (Delta-Damascone)<br>Trans-Rose Ketone 3<br>Cis-Rose Ketone 2 (Cis-Beta-Damascone)<br>Trans-Rose Ketone 2 (Trans-Beta- Damascone) | 43052-87-5<br>23726-94-5<br>24720-09-0<br>23696-85-7<br>57378-68-4<br>71048-82-3<br>23726-92-3<br>23726-91-2 | -- |
| 3-Propylidenephthalide | - | 17369-59-4 | -- |
| Lippia Citriodora Absolute | - | 8024-12-2 / 85116-63-8 | -- |
| Methyl Salicylate | - | 119-36-8 | -- |
| Acetyl Cedrene | - | 32388-55-9 | -- |
| Amyl Salicylate | - | 2050-08-0 | -- |
| Anethole | - | 104-46-1 / 4180-23-8 | -- |
| Benzaldehyde | - | 100-52-7 | -- |
| Camphor | - | 76-22-2 / 21368-68-3 / 464-49-3 / 464-48-2 | -- |
| Beta-Caryophyllene | - | 87-44-5 | 20,0 |
| Carvone | Carvone; L-Carvone; D-Carvone | 99-49-0 / 6485-40-1 / 2244-16-8 | -- |
| Dimethyl Phenethyl Acetate | - | 151-05-3 | -- |
| Hexadecanolactone | - | 109-29-5 | -- |
| Hexamethylindanopyran | - | 1222-05-5 | -- |

| | | | |
|---|---|---|---|
| Linalyl Acetate | - | 115-95-7 | -- |
| Menthol | Menthol<br>DL-Menthol<br>L-Menthol<br>D-Menthol | 89-78-1<br>1490-04-6<br>2216-51-5<br>15356-60-2 | -- |
| Trimethylcyclopentenyl Methylisopentenol | - | 67801-20-1 | -- |
| Salicylaldehyde | - | 90-02-8 | -- |
| Santalol | Santalol<br>Alpha-Santalol<br>Beta-Santalol | 11031-45-1<br>115-71-9<br>77-42-9 | -- |
| Sclareol | - | 515-03-7 | -- |
| Terpineol | Terpineol<br>Alpha-Terpineol<br>Beta-Terpineol<br>Gamma-Terpineol | 8000-41-7<br>98-55-5<br>138-87-4<br>586-81-2 | -- |
| Tetramethyl Acetyloctahydronaphthalenes | - | 54464-57-2 / 54464-59-4 / 68155-66-8 / 68155-67-9 | -- |
| Trimethylbenzenepropanol | - | 103694-68-4 | -- |
| Vanillin | - | 121-33-5 | -- |
| Cananga Odorata Oil/Extract | Cananga Odorata Flower Extract; Cananga Odorata Flower Oil | 83863-30-3 / 8006-81-3 / 68606-83-7 / 93686-30-7 | -- |
| Cinnamomum cassia Leaf Oil | - | 8007-80-5 / 84961-46-6 | -- |
| Cinnamomum Zeylanicum Bark Oil | - | 8015-91-6 / 84649-98-9 | -- |
| Citrus Aurantium Flower Oil | Citrus Aurantium Amara Flower Oil<br>Citrus Aurantium Dulcis Flower Oil | 72968-50-4<br>8028-48-6 / 8016-38-4 | -- |
| Citrus Aurantium Peel Oil | Citrus Aurantium Amara Peel Oil<br>Citrus Aurantium Dulcis Peel Oil; Citrus Sinensis Peel Oil | 68916-04-1 / 72968-50-4<br>97766-30-8 / 8028-48-6 / 8008-57-9 | -- |
| Citrus Aurantium Bergamia Peel Oil | - | 8007-75-8 / 89957-91-5 / 68648-33-9 / 8007-75-8 / 85049-52-1 | -- |
| Citrus Limon Peel Oil | - | 84929-31-7 / 8008-56-8 | -- |
| Lemongrass Oil | Cymbopogon Schoenanthus Oil<br>Cymbopogon Flexuosus Oil<br>Cymbopogon Citratus Leaf Oil | 8007-02-1 / 89998-16-3<br>91844-92-7<br>8007-02-1 / 91844-92-7 | -- |
| Eucalyptus Globulus Oil | Eucalyptus Globulus Leaf Oil<br>Eucalyptus Globulus Leaf/Twig Oil | 97926-40-4 / 8000-48-4<br>8000-48-4 | -- |
| Eugenia Caryophyllus Oil | Eugenia Caryophyllus Leaf Oil<br>Eugenia Caryophyllus Flower Oil<br>Eugenia Caryophyllus Stem oil<br>Eugenia Caryophyllus Bud oil | 8000-34-8 / 8015-97-2 /<br>84961-50-2<br>84961-50-2<br>84961-50-2<br>84961-50-2 | 100 |

| | | | |
|---|---|---|---|
| Jasmine Oil/Extract | Jasminum Grandiflorum Flower Extract; Jasminum Officinale Oil; Jasminum Officinale Flower Extract | 84776-64-7 / 90045-94-6 / 8022-96-6 / 8024-43-9 | -- |
| Juniperus Virginiana Oil | Juniperus Virginiana Oil<br>Juniperus Virginiana Wood Oil | 8000-27-9<br>85085-41-2 | -- |
| Laurus Nobilis Leaf Oil | - | 8002-41-3 / 8007-48-5 / 84603-73-6 | -- |
| Lavandula Oil/ Extract | Lavandula Hybrida Oil; Lavandula Hybrida Extract; Lavandula Hybrida Flower Extract<br>Lavandula Intermedia Flower/Leaf/Stem Extract; Lavandula Intermedia Flower/Leaf/Stem Oil; Lavandula Intermedia Oil<br>Lavandula Angustifolia Oil; Lavandula Angustifolia Flower/Leaf/Stem Extract | 91722-69-9 / 8022-15-9 / 93455-96-0 / 93455-97-1 / 92623-76-2<br>84776-65-8 / 8000-28-0 / 90063-37-9<br>84776-65-8 / 8000-28-0 / 90063-37-9 | -- |
| Mentha Piperita Oil | - | 8006-90-4 / 84082-70-2 | -- |
| Mentha Viridis Leaf Oil | Mentha Spicata Oil (Spearmint Oil) | 8008-79-5 / 84696-51-5 | -- |
| Narcissus Extract | Narcissus Poeticus Extract<br>Narcissus Pseudonarcissus Flower Extract<br>Narcissus Jonquilla Extract<br>Narcissus Tazetta Extract | 90064-26-9 / 68917-12-4<br>90064-27-0<br>90064-25-8 | -- |
| Pelargonium Graveolens Flower Oil | - | 90082-51-2 / 8000-46-2 | -- |
| Pogostemon Cablin Oil | - | 8014-09-3 / 84238-39-1 | -- |
| Rose Flower Oil/Extract | Rosa Damascena Flower Oil; Rosa Damascena Flower Extract<br>Rosa Alba Flower Oil; Rosa Alba Flower Extract<br>Rosa Canina Flower Oil<br>Rosa Centifolia Flower Oil; Rosa Centifolia Flower Extract<br>Rosa Gallica Flower Oil<br>Rosa Moschata Flower Oil<br>Rosa Rugosa Flower Oil | 8007-01-0 / 90106-38-0<br>93334-48-6<br>84696-47-9<br>84604-12-6<br>84604-13-7<br><br>92347-25-6 | -- |
| Santalum Album Oil | - | 8006-87-9 / 84787-70-2 | -- |
| Eugenyl Acetate | - | 93-28-7 | 0,1 |
| Geranyl Acetate | - | 105-87-3 | -- |
| Isoeugenyl Acetate | - | 93-29-8 | 0,8 |
| Pinene | Alpha-Pinene; Beta-Pinene | 80-56-8 / 7785-70-8 / 127-91-3 / 18172-67-3 | -- |

# Independent tests and studies

TISSERAND, Robert a Rodney YOUNG. Essential oil safety: a guide for health care professionals. Second edition. Edinburgh: Elsevier, 2013. ISBN 9780443062414.