

CERTIFICATE OF ANALYSIS

PROFILE SIMILAR TO STANDARD

PRODUCT CLOVE BUD ORGANIC, OIL

4417002 BATCH NUMBER

GC ANALYSIS

BEST BEFORE DATE DECEMBER 2023

TEST	UNIT	RESULTS
APPEARENCE COLOR		MOBILE LIQUID (SLIGHTLY VISCOUS) PALE BROWN
ODOR		SPICY, WOODY
DENSITY 20	(g/ml)	1.055
REFRACTIVE IND.20		1.5340

REACH REGISTRATION NO.01-2119971802-33

WE CERTIFY THAT THE QUALITY OF THIS PRODUCT CONFORMS WITH OUR SPECIFICATIONS.

THIS CERTIFICATE DOES NOT RELEASE THE CUSTOMER FROM THE OBLIGATION TO CARRY OUT AN EXAMINATION OF THE GOODS RECEIVED.

ERNESTO VENTÓS, S.A., SHALL NOT BE HELD LIABLE FOR ANY DAMAGE OR INJURY RESULTING FROM HANDLING OR WITH THE ABOVE PRODUCT.

THIS IS A COMPUTER PRINTED DOCUMENT AND IT IS THEREFORE NOT SIGNED.



FRAGRANCE ALLERGENS

Product name: CLOVE BUD, OIL

Ingredient	Total content (w/w).
Amyl cinnamic alcohol (CAS 101-85-9)	Not Detected
Amyl cinnamic aldehyde (CAS 122-40-7)	Not Detected
Anisyl alcohol (CAS 105-13-5)	Not Detected
Benzyl alcohol (CAS 100-51-6)	Not Detected
Benzyl benzoate (CAS 120-51-4)	Not Detected
Benzyl cinnamate (CAS 103-41-3)	Not Detected
Benzyl salicylate (CAS 118-58-1)	Not Detected
Cinnamic alcohol (CAS 104-54-1)	Not Detected
Cinnamic aldehyde (CAS 104-55-2)	Not Detected
Citral (CAS 5392-40-5)	Not Detected
Citronellol (CAS 106-22-9)	Not Detected
Coumarin (CAS 91-64-5)	Not Detected
Eugenol (CAS 97-53-0)	< 85,0%
Farnesol (CAS 4602-84-0)	Not Detected
Geraniol (CAS 106-24-1)	Not Detected
Hexylcinnamic aldehyde (CAS 101-86-0)	Not Detected
Hydroxycitronellal (CAS 107-75-5)	Not Detected
Hydroxymethylpentylcyclohexene carboxaldehyde (Lyral) (CAS 31906-04-4)	Not Detected
Isoeugenol (CAS 97-54-1)	< 0,05%
D-Limonene (CAS 5989-27-5)	< 0,01%
Linalool (CAS 78-70-6)	< 0,05%
2-methyl-3-(4-(1,1-dimethyl ethyl) phenyl)propanal (Lilial) (CAS 80-54-6)	Not Detected
Methyl heptine carbonate (CAS 111-12-6)	Not Detected
Gamma-methylionone (iso-alfa-Methylionone) (3-methyl-4-(2 trimethyl-2-cyclohexen-1-yl)-3-buten-2-one) (CAS 127-51	Not Detected
Treemoss (Evernia furfuracea) (CAS 90028-67-4)	Not Detected
Oakmoss (Evernia prunastri)(CAS 90028-68-5)	Not Detected

Detection limit 10 ppm

This list comprises references 45, 67 and 69 to 92 in Annex III

Version date: 13 June 2012



IFRA CONFORMITY CERTIFICATE

Product: CLOVE BUD, OIL

We certify that the above-mentioned product is in compliance with the Standards of the International Fragrance Associaton (IFRA) up to and including the 49th Amendment to the IFRA Standards (published January 2020), provided it is used in the following categories at a maximum concentration level of (1):

	Category 1	0,53%	(2)	Category 7A	1,2%	(2)
	Category 2	0,16%		Category 7B	1,2%	
	Category 3	0,6%		Category 8	0,25%	
	Category 4	2,94%		Category 9	1,8%	
	Category 5A	0,75%		Category 10A	1,8%	
	Category 5B	0,75%		Category 10B	6,4%	
	Category 5C	0,75%		Category 11A	0,25%	
_	Category 5D	0,25%		Category 11B	0,25%	
	Category 6	0,75%		Category 12	Not restricted	

⁽¹⁾ the concentration of a fragrance ingredient should not exceed the usual concentration of the fragrance compound in the finished product,
(2) _____

IFRA would recommend that any material used to impart perfume or flavour in products intended for human ingestion should consist of ingredients that are in compliance with appropriate regulations for foods and food flavourings in the countries of planned distribution and, where these are lacking, with the recommendations laid down in the Code of Practice of IOFI (International Organisation of the Flavour Industry).

Please note this certificate does not include food status conformity check. A separate document, wich may be available depending on the product, is needed for such purpose.

Contains the following substances restricted by IFRA standards:

 EUGENOL
 < 85%</td>

 METHYŁ EUGENOL
 < 0,05%</td>

 ISOEUGENOL
 < 0,05%</td>

and complies with the latest IFRA specification.



To whom it may concern

ALLERGENS CERTIFICATE

Product: CLOVE BUD, OIL

To our knowledge from the currently existing information in our files received from our suppliers, we certify that the above-mentioned product does not contain any of the following materials*

- Cereals containing gluten (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains) and products thereof
- Crustaceans and products thereof
- Eggs and products thereof
- Fish and products thereof - Peanuts and products thereof
- Soybeans and products thereof
- Milk and products thereof (including lactose)
 Nuts (i.e. almonds (Amygdalus communis L.), hazelnuts (Corylus avellana), walnuts (Juglans regia), cash (Anacardium occidentale), pecan nuts (Carya illinolesis (Wangenh.) K. Koch), Brazil nuts (Bertholletia ex pistachio nuts (Pistacia vera), macadamia nuts and Queensland nuts (Macadamia ternifolia) and product
- Celery and products thereof
- Mustard and products thereof
- Sesame seeds and products thereof
- Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 m /expressed sa SO2
- Lupin and products thereof
- Molluscs and products thereof

*According to Regulation (EU) 1169/2011 of 25 October 2011 on the provision of food information to consumers

The information contained herein is to the best of our knowledge (reliable) However it should be noted, that it is the responsibility of the manufacturer of the material containing this flavouring ingredient to identify and comply with all the relevent legal requirements.

This document is electronically generated and therefore not signer



Flowchart of the Production Process

Product: CLOVE BUD, OIL

Eugenia caryophyllata Thunb (plant)

Flarvesting.

Dried seeds flowers of Clove

Steam distiliation

Clove Bud, oil



GMO CERTIFICATE

Product: CLOVE BUD, OIL

This is to certify that to the best of our knowledge the above-mentioned product

- does not contain
- · does not consist of
- is not derived from
- · is not produced with the help of

genetically modified organisms (GMO) or derivative ingredients as per EU Directive 2001/18/EC.

Foods containing this product are not subject to the labelling requirements of EU Regulations 1829/2003/EC and 1830/2003/EC.

This material complies with article 9 of Regulation (EC) 834/2007 regarding the prohibition on the use of GMOs in organic production.

This document is electronically generated and therefore it is not signed



SPECIFICATION SHEET

VERSION 5,00 **VERSION DATE** 05/02/10 **PRINT DATE** 20/11/20

PRODUCT CLOVE BUD, OIL

APPLICATIONS Raw material for industrial use intended for the manufacture of flavours and/or fragrances.

IUPAC NAME CLOVE BUD OIL

PLANT OF ORIGIN Eugenia Caryophyllata Thunb

PART OF THE PLANT

SYNONYMS

 CAS
 84961-50-2

 CAS 2
 8000-34-8

 EINECS
 284-638-7

FEMA 2323

TARIFF NUMBER 3301291100

REACH REGISTRATION NO. 01-2119971802-33

SPECIFICATIONS

ASPECT AT 20° C MOBILE LIQUID (SLIGHTLY VISCOUS)

COLOUR YELLOW, PALE BROWN

ODOUR SPICY, WOODY

TASTE

DENSITY A 20° C (g / ml) 1,040 - 1,060

DENSITY 25/25

REFRACTIVE INDEX nD20 1,5250 ~ 1,5350

REFRACTIVE INDEX nD25

OPTICAL ROTATION (°) -2,00 / 2,00

BOILING POINT (°C)

MELTING POINT (°C)

FLASH POINT (°C) 101,00

ASSAY (% GC) EUGENOL: 80-85%

ACID VALUE (mg KOH/g)

SOLUBILITY

VAPOUR PRESSURE NOT DETERMINED OTHER SOLUBILITIES SOLUBLE IN ETHANOL

OTHER TECHNICAL DATA

STABILITY AND STORAGE

KEEP IN TIGHTLY CLOSED CONTAINER IN A COOL AND DRY PLACE, PROTECTED FROM LIGHT. WHEN STORED FOR MORE THAN 24 MONTHS, QUALITY SHOULD BE CHECKED BEFORE USE.

THIS PRODUCT HAS NOT BEEN FILTERED DUE TO TECHNOLOGICAË MATERIAL IN FOOD INTENDED FOR FINAL CONSUMERS.



SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH)

CLOVE BUD, OIL

Revision date: 20-05-2019 Print Date: 20-11-2020 Version: 3.3/CLP/EN

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1. Identification of the substance/mixture

CLOVE BUD. OIL Substance name: CLOVE BUD, OIL **CAS Number:** 84961-50-2 **CE Number:** 284-638-7 **REACH Registration number:** 01-2119971802-33

1.2. Relevant identified uses of the substance or mixture and uses advised against

Raw material for the manufacture of fragrances and/or flavourings.

1.3. Details of the supplier of the safety data sheet

Company: MADAR Corporation Limited

Address: 19 - 20 Sandleheath Industrial Estate

> Fordingbridge SP6 1PA

Telephone: 01425 655 555

E-mail: technical@madarcorporation.co.uk

1.4. Emergency telephone number

+44 (0)1425 655 555

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Eye Irritant - Category 2 - H319 Skin sensitizer - Category 1B - H317

2.2. Label Elements

Hazard pictograms:



Signal Word:

Warning

Hazard statements:

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

Precautionary statements:

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection P302+P352+P333+P313 - IF ON SKIN: Wash with plenty of soap and water. If irritation or rah occurs. Get Medical advice/attention P305+P351+P338+P337+P313 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses. if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

Suplemental Hazard Information:

Contains BETA-CARYOPHYLLENE, EUGENOL. May produce an allergic reaction.

2.3. Other hazards

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Chemical name: CLOVE BUD, OIL CAS number: 84961-50-2 EC number: 284-638-7



SAFETY DATA SHEET Conforms to Regulation (EC) No. 1907/2006 (REACH)

CLOVE BUD, OIL

Revision date: 20-05-2019 Print Date: 20-11-2020 Version: 3.3/CLP/EN

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Hazardous constituents:

Chemical Name	% (w/w)	CAS No EC No	Classification according to Regulation 1272/2008
EUGENOL	≥50	97-53-0 202-589-1	Eye Irrit. 2 - H319 Skin Sens. 1B - H317
ACETYL EUGENOL	≥1; <10	93-28-7 202-235-6	Acute Tox, 4 (oral) - H302
BETA-CARYOPHYLLENE	≥1;<10	87-44-5 201-746-1	Skin Sens. 1B - H317 Asp. Tox. 1 - H304 Aquatic Chronic 4 - H413

See the full text of the hazard statements in section 16.

3.2. Mixtures

Not applicable.

SECTION 4. FIRST-AID MEASURES

4.1. Description of necessary first aid measures

Ingestion: Rinse mouth with water.

Obtain medical advice.

Keep at rest. Do not induce vomiting.

Eye contact: In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek medical advice.

Inhalation: Remove person to fresh air and keep at rest.

Seek immediate medical advice.

Skin contact; Take off immediately all contaminated clothing.

> Thoroughly wash affected skin with soap and water. Seek medical attention if symptoms persist.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Water spray, carbon dioxide, dry chemical powder or appropriate foam.

For safety reasons do not use full water jet.

5.2. Special hazards arising from the substance or mixture

Known or Anticipated Hazardous Products of Combustion: Emits toxic fumes under fire conditions.

5.3. Advice for firefighters

High temperatures can lead to high pressures inside closed containers.

Avoid inhalation of vapors that are created. Use appropriate respiratory protection.

Do not allow spillage of fire to be poured into drains or watercourses.

Wear self-contained breathing apparatus and protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate surronding areas. Ensure adequate ventilation. Keep unnecessary and unprotected personnel from entering. Do not breathe vapor/spray. Avoid contact with skin and eyes. Information regarding personal protective measures: see section B.

6.2. Environmental precautions

To avoid possible contamination of the environment, do not discharge into any drains, surface waters or groundwaters.

6.3. Methods and materials for containment and cleaning up

Cover	with	an		inert,		inorganic,	non	-combust	ible	absorbent		material
Place	in	covere	d	containers		using	non-sparking		tools	and		transport
Avoid	open	flames	or	sources	of	ignition	(e.g.	pilot	lights	on	gas	hot
Ventilate area and wash spill site after material pickup is complete.												

6.4. Reference to other sections

Information regarding exposure controls, personal protection and disposal, considerations can be found in sections B and 13.



SAFETY DATA SHEET Conforms to Regulation (EC) No. 1907/2006 (REACH)

CLOVE BUD, OIL

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SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Do not store or handle this material near food or drinking water. Do not smoke. Avoid contact with the eyes, skin and clothing. Wear protective clothing and use glasses.

Observe the rules of safety and hygiene at work.

Keep in the original container or an alternative made from a compatible material.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed and preferably full containers in a cool, dry and ventilated area, protected from light.

Keep away from sources of ignition (e.g. hot surfaces, sparks, flame and static discharges).

Keep away from incompatible materials (see section 10).

7.3. Specific end use(s)

No information available

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1. Control parameters

Components with occupational exposure limits:

None known.

8.2. Exposure controls

Appropriate engineering controls: Measures should be taken to prevent materials from being splashed into the body.

Provide adequate ventilation, according to the conditions of use. Use a mechanical exhaust if required.

Chemicalsafetygoggles are recommended. Wash contaminated goggles before reuse. Eve/Face protection: Hand Protection: Chemical-resistant gloves are recommended. Wash contaminated gloves before reuse.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks

involved

Respiratory Protection: In case of insufficient ventilation, use suitable respiratory equipment.

Environmental exposure controls; Emissions from ventilation or process equipment should be checked to ensure they comply with environmental

protection legislation.

In some cases, filters or engineering modifications to the process equipment will be necessary to reduce emissions to

acceptable levels.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance: Liquid

Colour: Conforms to standard Odour: Conforms to standard Odour theshold: Not determined Not determined Melting point/freezing point: Not determined Boling point/boiling range: Not determined Flash point: 101°C

Evaporation rate: Not determined Flammability: Not determined Lower flammability/Explosive limit: Not determined Upper flammability/Explosive limit: Not determined Vapour pressure: Not determined Vapour Density: Not determined 1,04—1,06 g/ml/ (20°C) Density:

Relative density: 1,04-1,06 (20%) Water solubility: Not determined Solubility in other solvents: SOLUBLE IN ETHANOL Partition coefficient n-octanol/water: Not determined Auto-ignition temperature: Not determined Decomposition temperature: Not determined Viscosity, dynamic: Not determined Viscosity, kinematic: Not determined Explosive properties: Not determined Oxidising properties: Not determined



SAFFTY DATA SHFFT

Conforms to Regulation (EC) No. 1907/2006 (REACH)

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9.2. Additional information

No information available.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

10.4. Conditions to Avoid

Conditions to Avoid: Excessive heat, flame or other ignition sources.

10.5. Incompatible materials

Avoid contact with strong acids and bases and oxidizing agents.

10.6. Hazardous decomposition products

During combustion may form carbon monoxide and unidentified organic compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity	Based on the data available, the criteria for classification are not met.
Skin corrosion/irritation	Based on the data available, the criteria for classification are not met.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Based on the data available, the criteria for classification are not met.
Carcinogenicity	Based on the data available, the criteria for classification are not met.
Reproductive toxicity	Based on the data available, the criteria for classification are not met.
STOT-single exposure	Based on the data available, the criteria for classification are not met.
STOT-repeated exposure	Based on the data available, the criteria for classification are not met.
Aspiration hazard	Based on the data available, the criteria for classification are not met.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Assessment:

Based on the data available, the criteria for classification are not met.

Experimental/calculated data:

No information available.

12.2. Degradability

Biodegradation: Readily biodegradable.

12.3. Bioaccumulative potential

No information available.

12.4. Soil mobility

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

See also sections 6, 7, 13 and 15

Do not allow to get into waste water or waterways.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of in accordance with national and local environmental regula



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SECTION 14: TRANSPORT INFORMATION

	ADR/RID/ADN	IMDG	IATA-ICAO
14.1. UN Number	Not classified as hazardous goods	Not classified as hazardous goods	Not classified as hazardous goods
14.2. UN Proper Shipping Name	Not applicable	Not applicable	Notapplicable
14.3. Transport Hazard Class(es)	Not applicable	Not applicable	Notapplicable
14.4. Packing Group	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards	No	No	No
Additional information			

14.6 Special precautions for user

None known

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

No information available

15.2. Chemical safety assessment

No information available

SECTION 16: OTHER INFORMATION

Full text of the R-phrases, hazard statements and precautionary statements mentioned in section 3:

H302 - Harmful if swallowed,

H304 - May be fatal if swallowed and enters airways.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H413 - May cause long lasting harmful effects to aquatic life.



VEGAN / VEGETARIAN DECLARATION

Product: CLOVE BUD, OIL

We hereby inform that, to the best of our knowledge, the above-mentioned material is suitable for the following diets:

Vegan

Does not contain any ingredient of animal origin (mammalian, poultry, fish, crustacean, mollusc) or animal derivatives (dairy, egg and bee products) including additives and processing aids.

Vegetarian

Does not contain any ingredient of animal origin (mammalian, poultry, fish, crustacean, mollusc) or dairy and egg products, including additives and processing aids. Bee products (e.g. honey, bees wax) are acceptable.

Ovo-Lacto Vegetarian

Does not contain any ingredient of animal origin (mammalian, poultry, fish, crustacean, Mollus), including additives and processing aids. Dairy, egg and bee products (e.g. honey, acceptable, bees wax) are.