CERTIFICATE OF ANALYSIS

PRODUCT	: VETIVER OIL INDONESIAN :
BATCH NO	4490910
BEST BEFORE END	December 2025
Appearance	Brown oily liquid :
Odour	Characteristic of vetiver
Specific gravity @ 25°C	: 0.9900
Refractive Index @ 20°C	: 1.5246
Solubility	: 1:1

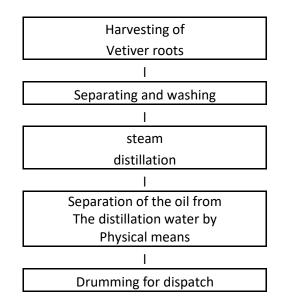
ALLERGENS LIST

PRODUCT: Vetiver oil

Product	CAS number		%
Amyl cinnamic alcohol	101-85-9	Not found in nature	
Amyl cinnamic aldehyde	122-40-7	Not found in nature	
Anisyl alcohol	105-13-5		-
Benzyl alcohol	100-51-6		-
Benzyl benzoate	120-51-4		-
Benzyl cinnamate	103-41-3		-
Benzyl salicylate	118-58-1		-
Cinnamic alcohol	104-54-1		-
Cinnamic aldehyde	104-55-2		-
Citral	5392-40-5		-
Citronellol	106-22-9		-
Coumarin	91-64-5		-
Eugenol	97-53-0		-
Farnesol	4602-84-0		-
Geraniol	106-24-1		-
Hexyl cinnamic aldehyde	101-86-0	Not found in nature	
Hydroxycitronellal	107-75-5	Not found in nature	
Hydroxymethylpentylcyclohexenecarboxaldehyde	31906-4-4	Not found in nature	
Isoeugenol	97-54-1		-
2-(4-tert-butylbenzyl)propionaldehyde	80-54-6		-
Limonene	5989-27-5		-
Linalol	78-70-6		-
Methylheptine carbonate	111-12-6	Not found in nature	
Methyl ionone	127-51-5	Not found in nature	
Oakmoss extract	9028-68-55		-
Treemoss extract	84696-53-7		-

Process flow Chart

Vetiver Oil



CERTIFICATE OF GMO STATUS

For the purpose of this statement 'genetically modified organism (GMO)' is defined in Directive 2001/18/EC as an organism in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination.

This is to certify that to the best of our knowledge and belief the oil of Vetyver that this company supplies is not produced by gene modification or derived from genetically modified organisms or from the use of genetically modified organisms.

Neither Madar Corporation Ltd. nor our suppliers can guarantee against or be held responsible for potential cross-pollination between crops, or any other unforeseen contamination risks.

IFRA STANDARDS CONFORMITY CERTIFICATE

Fragrance compound

Product: Vetiver

Oil

We certify that the above substance is in compliance with the Standards of the INTERNATIONAL FRAGRANCE ASSOCIATION (IFRA), 50th Amendment to the IFRA Code of Practice (published January *2021*), It does not appear in the IFRA list of standards and so no information is available on its use in the IFRA Classes:

IFRA class(es) [see respective IFRA guidance for details]	Level of use (%)*

*Actual use level or maximum use level

The IFRA Standards are based on safety assessments by the Panel of Experts of the RESEARCH INSTITUTE FOR FRAGRANCE MATERIALS (RIFM).

Recommendation: Information about presence and concentration of IFRA restricted/prohibited materials in the Vetiver Oil is as follows:

IFRA Restricted materials:

Ingredient name	CAS	Concentration %
Alpha cedrene	461-69-4	0.2
Beta cedrene	546-28-1	0.1
Cedrene	11028-42-5	0.3

IFRA prohibited materials: None

Ingredient name	CAS	Details

Signature (If generated electronically, no signature)

Date 2January 2021

SAFETY DATA SHEET

Vetiver Oil

This Safety Data Sheet contains information concerning the potential risks to those involved in handling, transporting and working with the material, as well as describing potential risks to the consumer and the environment. This information must be made available to those who may come into contact with the material or are responsible for the use of the material. This Safety Data Sheet is prepared in accordance with formatting described in the REACH Regulation (EC) No 1907/2006, and described in CLP Regulation (EC) No 1272/2008.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name Vetiver oil

EC number:	282-490-8
EC name:	Vetiveria zizanioides, ext
CAS number (EC	84238-29-9
inventory):	
Registration number	

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

Multiple uses in the Fragrances industries

1.3 Details of the supplier of the safety data sheet

MADAR Corporation Limited 19-20 Sandleheath Industrial Estate Fordingbridge Hampshire SP6 1PA

Tel: 01425 655555 E mail: sales@madarcorporation.co.uk

1.4 Emergency telephone number

In case of emergency Tel. 01425 655555 during office hours

SECTION 2: Hazards Identification

2.1 Classification of the substance

Classification in accordance with GHS Hazard codes

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 – Causes serious eye irritation

H411 – Toxic to aquatic life with long lasting effects

Classification in accordance with the Classification Labelling and Packaging Regulation EC (no) 1272/2008

Hazard Statements

H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 – Causes serious eye irritation H411 – Toxic to aquatic life with long lasting effects

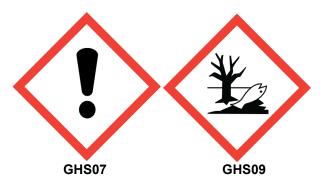
Precautionary Statements

P262 - Do not get in eyes, on skin, or on clothing
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P273 - Avoid release to the environment
P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing
P391 - Collect spillage

2.2 Label elements

Signal Word WARNING

Pictograms



2.3 Other hazards

SECTION 3: Composition

3.1 Substances

Vetiver oil 100 %

Major Components: beta-vetivenene, beta-vetivone, khusimol, alpha-vetivone, isovalencenol

SECTION 4: First Aid Measures

4.1 Description of first aid measures

EYE CONTACT: Irrigate the eyes with copious volumes of water for at least 15 minutes with the eye lids held open. Seek medical advice if inflammation persists

INHALATION: Remove person to fresh air, remove any contaminated clothing, in case of

19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK Tel: 01425 655555 Email: technical@madarcorporation.co.uk Page 7 of 16 breathing difficulty seek medical advice.

- SKIN CONTACT: Wash affected area with soap and running water, if irritation persists seek medical advice.
- INGESTION: Dilute internally with water, do not induce vomiting. Seek medical advice immediately.
- 4.2 Most important symptoms and effects, both acute and delayed
- 4.3 Indication of any immediate medical attention and special treatments needed

Symptomatic treatment as required

SECTION 5: Firefighting Measures

- 5.1 Extinguishing media Foam, CO₂, Dry Powder
- 5.2 Special hazards arising from the substance or mixture Combustion products: Carbon monoxide, Carbon dioxide, Smoke
- 5.3 Advice for fire fighters Do Not Use Water as extinguishing media. No special fire fighting equipment required.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear clothing suitable for an emergency

6.2 Environmental precautions

Contain the leak with earth or sand. Prevent from entering drains, sewers and water courses. If this cannot be done, advise the local authority.

6.3 Methods and materials for containment and clearing up

Absorb spillage onto sand or earth. Transfer to a suitable container for disposal.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Handle in a well ventilated area, away from sources of ignition, DO NOT SMOKE.

7.2 Conditions for safe storage, including any incompatibilities

Store in well-filled, tightly closed containers away from heat, light and sources of ignition.

7.3 Specific end uses

Used in Fragrances.

SECTION 8. Exposure Controls/Personal Protection

8.1 Control parameters No data available

Substance	8 hour exposure limit	15 minute exposure limit	Source, Type

DNELs for workers No data available

Exposure	Route	DNEL	Dose descriptor
pattern			·
Acute -	Dermal		
systemic effects			
Acute - systemic effects	Inhalation		
Acute - local effects	Dermal		
Acute - local effects	Inhalation		
Long-term - systemic effects	Dermal		
Long-term - systemic effects	Inhalation		
Long-term - local effects	Dermal		
Long-term - local effects	Inhalation		

PNECs No data available

Compartment	PNEC	Dose descriptor
Fresh water		
Sewage treatment		

8.2 Exposure controls

Engineering controls – Use suitable handling equipment

Respiratory protection – Use only in well ventilated areas. Use protection in poor ventilation.

Hand Protection – Wear gloves

Eye protection - Wear goggles

Skin protection – Wear suitable protective clothing

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: Clear, mobile liquid

Odour: Characteristic of vetiver Odour threshold: No data available pH: Not applicable Melting point: Not applicable Boiling point: Not applicable Flashpoint: >119°C Evaporation rate: No data available Flammability: Combustible Upper/lower flammability limits: No data available Vapour pressure: No data available Vapour density: No data available Relative density: 0.99 Solubility in water: Insoluble Solubility in other solvents: Soluble Partition coefficient (log Kow): No data available Autoignition temperature: No data available Decomposition temperature: No data available Viscosity: No data available Explosive properties: No data available **Oxidising properties: None**

9.2 Other information Particle size: Not applicable

SECTION 10: Stability and Reactivity

- 10.1 Reactivity: Will react with oxidising agents
- 10.2 Chemical stability: Stable under proper storage conditions.
- 10.3 Possibility of hazardous reactions: Not if stored correctly
- 10.4 Conditions to avoid: Do not leave containers open to the air. Avoid storage at elevated temperatures and sources of ignition.
- 10.5 Incompatible materials: Oxidising agents
- 10.5 Hazardous decomposition products: On combustion may produce smoke, carbon monoxide and carbon dioxide.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

Toxicokinetics

- (a) acute toxicity: LD₅₀ >5000 mg/kg (Rat). Dermal >5000mg/kg (Rabbit)
- (b) skin corrosion/irritation: Causes skin irritation
- (c) serious eye damage/irritation: May cause eye irritation
- (d) respiratory/skin sensitisation: May cause an allergic skin reaction
- (e) germ cell mutagenicity: No data available
- (f) carcinogenicity: No data available
- (g) reproductive toxicity: No data available
- (h) STOT-single exposure: No data available
- (i) STOT-repeated exposure: No data available
- (j) aspiration hazard: No data available

SECTION 12: Ecological Information

- 12.1 Toxicity: No data available
- 12.2 Persistence and degradability: No data available
- 12.3 Bioaccumulative potential: No data available
- 12.4 Mobility in soil: No data available
- 12.5 Results of PBT and vPvB assessment: No data available
- 12.6 Other adverse effects

SECTION 13: Disposal Considerations

13.1 Waste treatment methods – Do not dispose into drainage systems. Ensure disposal is within local and national guidelines. Consult a specialist waste disposal company for correct disposal procedure and/or seek other expert advice.

SECTION 14: Transport Information

	ADR	IMDG	ICAO
14.1 UN Number	1169		
14.2 UN Proper shipping	Vetiver oil		
name			
14.3 Transport hazard class(es)	9	9	9
14.4 Packing group			
14.5 Environmental hazards			
14.6 Special precautions for user			
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code			

SECTION 15: Regulatory Information

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

This substance is listed as existing in Europe

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

SECTION 16: Other Information

Revision information:

List of Abbreviations used in this SDS:

- CAS Chemical Abstracts Service
- CLP Classification, Labelling and Packaging Regulation (EC) no 1272/2008
- DSD Dangerous Substances Directive 67/548/EEC
- DPD Dangerous Preparations Directive 1999/45/EC
- EC European Commity/Commission

PBT Persistent, Bioaccumulative and Toxic

REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006

vPvB very Persistent, very Bioaccumulative

References: Food Cosmetics Toxicology 12, 1013 (1974)

The information in this safety data sheet is based on the properties of the material known to MADAR Corporation Ltd at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. This document is not intended for quality assurance purposes.

SPECIFICATION

VETIVER OIL JAVA

Botanical source	: Vetiveria zizanioides
Method of Production	: Steam distillation
Appearance	: A brown to reddish-brown coloured viscous liquid
Odour	: Characteristic, woody and earthy
Density @ 20°C	: 0.975 – 1.000 g/ml
Optical Rotation @ 20°C	: +5 to +20
Refractive Index @ 20°C	: 1.500 – 1.530
Acid value	: Maximum 45

VEGAN SUITABILITY

This is to certify that the Vetiver Oil Java that Madar Corporation Limited supplies is suitable for Vegans

COSMETIC SENSITISERS (ALLERGENS) LIST

PRODUCT: VETIVER OIL

Sensitiser	CAS No	Percentage
Benzyl Alcohol	100-51-6	
Benzyl Salicylate	118-58-1	
Cinnamyl Alcohol	104-54-1	
Cinnamal	104-54-1	
Citral	5392-40-5	
Coumarin	91-64-5	
Eugenol	97-53-0	
Geraniol	106-24-1	
Isoeugenol	97-54-1	
Anisyl Alcohol	105-13-5	
Benzyl Benzoate	120-51-4	
Benzyl Cinnamate	103-41-3	
Citronellol	105-41-5	
Farnesol	4602-84-0	
Limonene	138-86-3	
Linalool	78-70-6	
Amyl Salicylate	2050-08-0	
Amylcinnamaldehyde	122-40-7	
Anethole	104-46-1	
Benzaldehyde	100-52-7	
Camphor	76-22-2	
Campion	99-49-0	
Beta Caryophyllene	87-44-5	0.3
Beta Damascenone	23696-85-7	0.5
alpha Damascone	43052-87-5	
Eugenyl acetate	93-28-7	
Geranyl acetate	105-87-3	
Hexadecalactone	109-29-5	
Hexylcinnamaldehyde	109-29-5	
Hydroxycitronellal	101-86-0	
nyuruxyutuunenai	T01-12-2	

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Linalyl acetate	115-95-7	
Menthol	1490-04-6	
Methyl Salicylate	119-36-8	
alpha Pinene	80-56-8	0.4
Beta Pinene	127-91-3	0.1
3-Propylidene phthalide	17369-59-4	
Salicylaldehyde	90-02-8	
Santalol	11031-45-1	
Sclareol	515-03-7	
alpha Terpinene	99-86-5	
Terpineol	98-55-5	
Terpinolene	586-62-9	
Vanillin	121-33-5	

This list represents the maximum values for each component reported for these oils. The list is intended to be used for declaration purposes in formulations. As they are maximum values the total may exceed 100 % and does not represent the composition of a particular oil.