



CERTIFICATE OF ANALYSIS

MATERIAL	PLAI OIL
BATCH NUMBER	4354303
BEST BEFORE END	MARCH 2022

Appearance	Almost colourless to pale amber, limpid liquid
Odour	Characteristic, green
Optical Rotation @ 20°C	-13.3
Specific Gravity @ 20°C	0.891
Refractive Index @ 20°C	1.4854
Flashpoint	47°C
Solubility	Insoluble in water

Storage

Original unopened container, at ambient temperature, under dry conditions and away from light. The shelf life is not valid out of the mentioned conditions.

Handling

According to IFRA Code of Practice.

Recommended Uses

Multiple uses.

Caution

Concentrated product for industrial use avoid contact with eyes and mucous. Do not drink.



ALLERGEN LISTING

MATERIAL NAME: PLAII OIL

INGREDIENT	CAS No.	% TOTAL
Alpha-Isomethylionone	127-51-5	A
Amyl Cinnamal	122-40-7	A
Amylcinnamyl Alcohol	101-85-9	A
Anise Alcohol	105-13-5	A
Benzyl Alcohol	100-51-6	A
Benzyl Benzoate	120-51-4	A
Benzyl Cinnamate	103-41-3	A
Benzyl Salicylate	118-58-1	A
Butylphenyl Methylpropional (Lilial)	80-54-6	A
Cinnamal	104-55-2	A
Cinnamyl Alcohol	104-54-1	A
Citral	106-26-3	A
	141-27-5	A
	5392-40-5	A
Citronellol	106-22-9	A
	1117-61-9	A
	141-25-3	A
	6812-78-8	A
	68916-43-8	A
	7540-51-4	A
Coumarin	91-64-5	A
Eugenol	97-53-0	A
Evernia Furfuraceae (Tree Moss) Extract	90028-67-4	A
Evernia Prunastri (Oak Moss) Extract	90028-68-5	A
Farnesol	4602-84-0	A
Geraniol	106-24-1	A
Hexyl Cinnamal	101-86-0	A
Hydroxycitronellal	107-75-5	A
Hydroxyisohexyl 3-Cyclohexene Carbocaldehyde (Lylal)	31906-04-4	A
Isoeugenol	97-54-1	A
Limonene	138-86-3	A
	5989-27-5	A
	5989-54-8	A
Linalool	126-90-9	A
	126-91-0	A
	78-70-6	A
Methyl 2-Octynoate	111-12-6	A

* A denotes absent

The information contained herein is true and accurate to the best of our knowledge.

We will not therefore accept liability for misuse of this data.

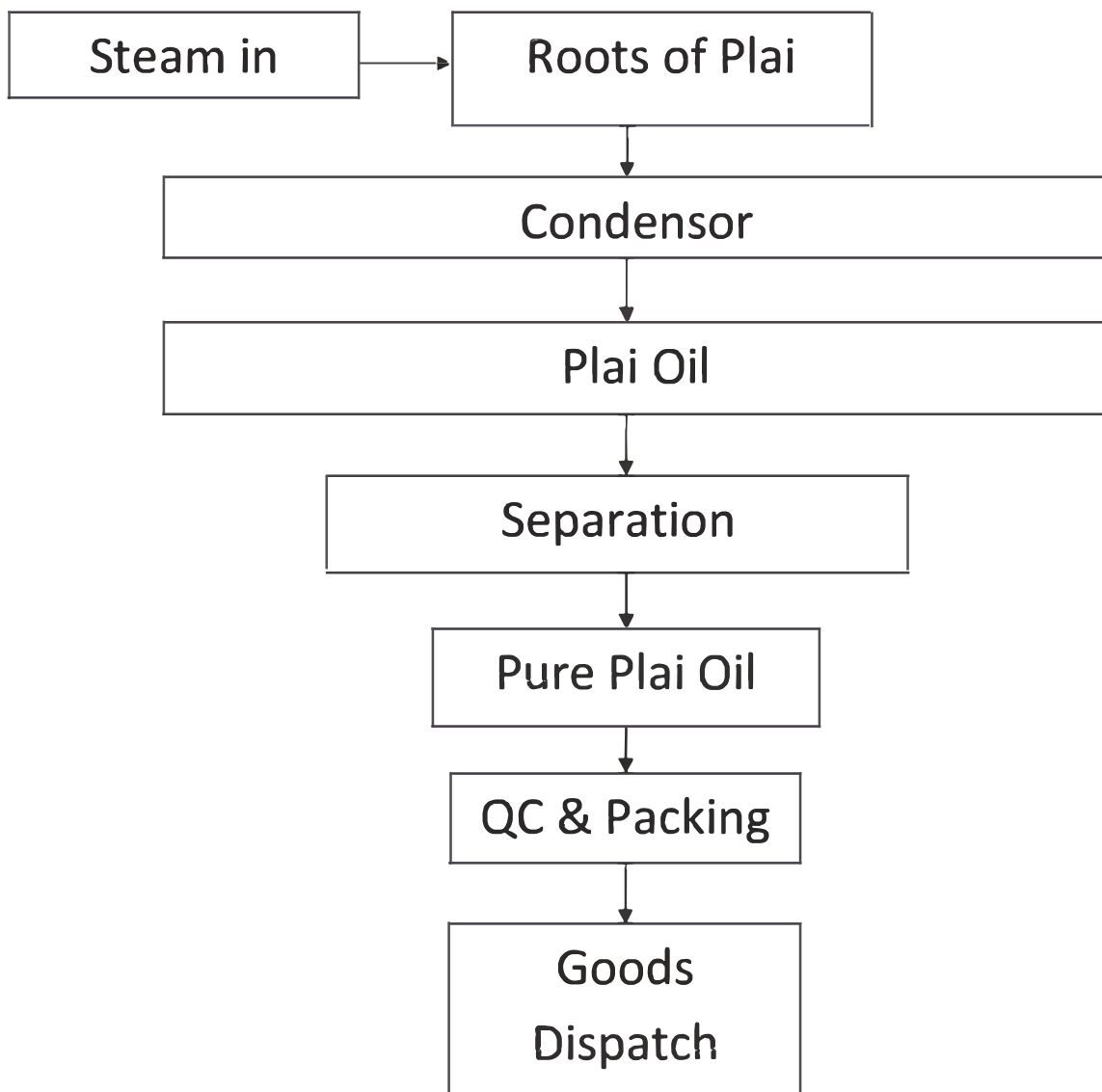
04/03/2019

BiOrigins, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK

Tel: 01425 655555 Email: technical@madarcorporation.co.uk



Production Flow chart – Plai Oil





GMO DECLARATION

MATERIAL	PLAI OIL
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We have carefully reviewed the ingredients in this product for their potential genetically modified (GM) origin. The list includes ingredients which may be produced from other GM ingredients.

Material	Present	Of GMO Origin
Chicory	No	-
Cotton	No	-
Maize	No	-
Potato	No	-
Rape	No	-
Soya	No	-
Sugar Beet	No	-
Tomato	No	-
Wheat	No	-

This information is valid when issued by MADAR Corporation Ltd. The information contained herein is true and accurate to the best of our knowledge. All information is valid until revisions are issued. We will not therefore accept liability for misuse of the data resulting in damage or loss.

4 March 2019



IFRA CONFORMITY CERTIFICATE
TRADE NAME: PLAI OIL

REVISION: 04.03.2019

Product Name	PLAI OIL
EINECS CAS Number	84696-15-1
CAS Number	8007-08-7
EC Number	283-634-2

We certify that the above compound is in compliance with the Standards of the INTERNATIONAL FRAGRANCE ASSOCIATION (IFRA 48th Amendment), provided it is used in the following class(es) at a maximum concentration level of:

IFRA Class(es) (See Annex for Details)	Max Level of Use (%)
Class 1(*)	No Limit(*)
Class 2	No Limit
Class 3A	No Limit
Class 3B	No Limit
Class 3C	No Limit
Class 3D	No Limit
Class 4A	No Limit
Class 4B	No Limit
Class 4C	No Limit
Class 4D	No Limit
Class 5	No Limit
Class 6(*)	No Limit(*)
Class 7A	No Limit
Class 7B	No Limit
Class 8A	No Limit
Class 8B	No Limit
Class 9A	No Limit
Class 9B	No Limit
Class 9C	No Limit
Class 10A	No Limit
Class 10B	No Limit
Class 11	No Limit

(*) IFRA would recommend that any material used to impart perfume of flavour in products intended for human ingestion should consist of ingredients that are in compliance with appropriate regulations for foods and food flavourings.

For other kinds of application or use at higher concentration levels, a new evaluation may be needed; please contact MADAR Corporation Ltd.



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The IFRA Standards regarding use restrictions are based on safety assessments by the Panel of Experts of the RESEARCH INSTITUTE FOR FRAGRANCE MATERIALS (RIFM) and are enforced by the IFRA Scientific Committee.

Evaluation of individual Fragrance ingredients is made according to the safety standards contained in the relevant section of the IFRA Code of Practice. This certificate serves only as a guide to the maximum level of use.

It is the ultimate responsibility of the customer to ensure safe formulating principles are utilised and the safety of the final product (containing this fragrance), by further testing if need be.

ANNEX: Definition of IFRA Classes

Finished Product Types	IFRA Class
Lip Products of all types (solid and liquid lipsticks, balms, clear or coloured, etc.) Children's toys	Class 1
Deodorant and Antiperspirant Products of all types including any product with intended or reasonably foreseeable use on the axillae or labelled as such (spray, stick, roll-on, under-arm, deo-cologne and body spray, etc.) Nose Pore Strips Fragranced Bracelets	Class 2
Hydroalcoholic Products Applied to Recently Shaved Skin (includes After Shave) - EdT	Class 3A
Hydroalcoholic Products Applied to Recently Shaved Skin (includes After Shave) – Fine Fragrance	Class 3B
Eye Products of all types (eye shadow, mascara, eyeliner, eye make-up, etc.) including eye care Men's Facial Creams, Balms Baby Creams, Lotions, Oils Body Paint for Children	Class 3C
Tampons	Class 3D
EdT - Hydroalcoholic Products Applied to Unshaved Skin (includes aqueous based, alcoholic based and hydroalcoholic) like Cologne, eau de colognes, Eau de Parfum or Parfum Ingredients of Perfume Kits Scent Pads, Foil Packs Scent Strips for Hydroalcoholic Products	Class 4A
Fine Fragrance - Hydroalcoholic Products Applied to Unshaved Skin (includes aqueous based, alcoholic based and hydroalcoholic) like Cologne, eau de colognes, Eau de Parfum or Parfum	Class 4B
Hair styling Aids, Sprays of all types (pumps, aerosol sprays, etc.) Body Creams, Oils, Lotions of all types (except baby creams, lotions and oils) Body Sprays (including Body Mist) with no intended or reasonably foreseeable use on the axillae Fragrance Compounds for Cosmetic Kits Foot Care Products Hair Deodorant Body Paint (except those for children)	Class 4C
Fragrancing Cream, Solid Perfumes	Class 4D
Facial Masks	Class 5(*)
Women's Facial Creams/ Facial Make-up, Hand cream, Hand Sanitisers, Baby Powder and Talc, Hair Permanent and Other Hair Chemical Treatments (e.g. relaxers) but not hair dyes, Wipes or Refreshing Tissues for Face, Neck, Hands, Body, Dry Shampoo or Waterless Shampoo	
Mouthwash, including Breath sprays, Toothpaste	Class 6
Intimate Wipes, Baby Wipes	Class 7A
Insect Repellent (intended to be applied to the skin)	Class 7B
Make-up Removers of all types (not including face cleansers), Hair Styling Aids Non-Spray of all types (mousse, gels, leave-in conditioners, etc.), Nail care, Powders and talcs, all types (except baby powders and talcs)	Class 8A



IFRA CONFORMITY CERTIFICATE
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Hair dyes	Class 8B
Conditioner (Rinse-Off), Liquid Soap, Shampoos of all types (including baby shampoos), Face Cleansers of all types (washes, gels, scrubs, etc.), Shaving Creams of all types (stick, gel, foams, etc.), All Depilatories (including waxes for mechanical hair removal), Body Washes of all types (including baby washes) and Shower Gels of all types, Bar Soap (Toilet Soap), Bath Gels, Foams, Mousses, Salts, Oils and Other Products Added to Bathwater	Class 9A
Feminine Hygiene – Pads, Liners, Toilet Paper, Wheat Bags	Class 9B
Facial Tissues, Napkins, Paper Towels, Other Aerosols (including air freshener sprays and air freshener pump sprays, but not including deodorants/antiperspirants, hair styling aids sprays)	Class 9C
Handwash Laundry Detergents of all types including concentrates, Fabric Softeners of all types including fabric softener sheets, Household Cleaning Products, Other Types (fabric cleaners, soft surface cleaners, carpet cleaners, etc.), Machine Wash Laundry Detergents (liquids, powders, tablets, etc.) including laundry bleaches and concentrates, Hand Dishwashing Detergent including concentrates, Hard Surface Cleaners of all types (bathroom and kitchen cleansers, furniture polish, etc.), Shampoos for Pets, Dry Cleaning Kits, Scented Gloves, socks, tights with moisturisers	Class 10A
Diapers, Toilet seat wipes	Class 10B
All non-skin contact or incidental skin contact including: Candles, Air Fresheners and Fragrancing of all types (concentrated aerosol with metered doses (range 0.05-0.5ml/spray), plug-ins, solid substrate, membrane delivery, electrical), Air Delivery Systems, Cell phone cases, pot pourri, powders, fragrancing sachets, liquid refills for air fresheners (non-cartridge systems), Reed diffusers, Liquid refills for air fresheners (cartridge systems), Shoe Polishes, Deodorizers/Maskers Not Intended for Skin Contact (e.g. fabric dyeing machine deodorizers, carpet powders), Insecticides (mosquito coil, paper, electrical, for clothing, etc.), excluding aerosols, Scent delivery system using a dry air technology that releases a fragrance without sprays, aerosols or heated oils (technology of nebulisation), Air freshening crystals, Toilet Blocks, Joss Sticks or incense Sticks, Machine Dishwash Detergent and Deodorizers, Machine Only Laundry Detergent (e.g. liquitabs)(**), Plastic articles (excluding toys), Fuels, Fragranced lamp ring, Scratch and Sniff (sampling technology), Paints, Cat Litter, Animal Sprays (all types), Treatment products for textiles (e.g. starch sprays, fabric treated with fragrances after wash, deodorizers for textiles or fabrics), Floor wax, Odoured Distilled Water (that can be added to steam irons)	Class 11

(*) Class 5, Facial masks: There are several types of masks: peel off (similar to rinse-off, rinse-off and leave-on (you only remove the excess with a facial tissue). To ease the split the most restrictive, i.e. leave-on is applied for all.

() Liquitabs corresponds to a dose of liquids wrapped in a film: no contact with hands is expected under normal conditions of use.**

The table was prepared with the intention to cover the vast majority of the products; however it may not cover some specific applications. In this case other classes may be attributed based on a specific risk assessment.

DISCLAIMER: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



MATERIAL SAFETY DATA SHEET

1 - Identification of Product and Supplier

Product Name: **Plai Oil**
Supplier: Madar Corporation
19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK
Contact: Tel: 01425 655555 Email: technical@madarcorporation.co.uk

2 - Hazards identification:

Xn - Harmful

3- Composition and information on ingredients:

The product does not belong to any list of substances supposedly hazardous to human or animal health according to EU guideline 548/67 and further amendments, nor to those having recognised exposition limits.

INCI Name: Chemical composition: **Zingiber Cassumunar Root Oil**
Zingiber Cassumunar Root Oil is the volatile oil obtained from the roots of Zingiber cassumunar, Zingiberaceae.
CAS No: 84696-15-1 / 8007-08-7
EINECS No: 283-634-2 / -
Application: Skin conditioning

4 - First aid measures:

Inhalation: Remove from exposure site to fresh air. Keep at rest. Seek medical advice.
Skin contact: Wash with water and soap – may need to seek medical advice.
Eye contact: Flush with water for at least 15 minutes. Contact a doctor if symptoms persist.
Ingestion: Not to be consumed in any circumstances. Rinse mouth out with water and seek medical advice **immediately**.
Other: When assessing action take into account Risk & Safety Phrases (Section 15)

5 - Fire - Fighting measures:

Extinguishing media: Carbon dioxide, foam, dry powder – spray extinguishing media to the base of the flames. Closed containers may build up pressure when exposed to heat – cool with water spray.
Extinguishing media to avoid: Direct sprays of water
Use Protective Equipment and Avoid inhalation of smoke and fumes: If inhaled seek immediate medical advice.

6 - Accidental release measures:

<u>Personal Precautions:</u>	Gloves and eye protection should be worn when handling spillages.
<u>Avoid flames or other potential sources of ignition.</u>	Avoid eye / skin contact and inhalation of vapour. Good personal washing routines should be followed after accidental release. Ensure adequate ventilation in working environment.
<u>Environmental Precautions:</u>	Do not allow discharge in drains, water supply or on soil. If spilt on soil or land use adequate cleaning measure in line with Government environmental protection legislation.
<u>Clean Up Method:</u>	Remove all potential ignition sources. Contain spillage. Cover with non-combustible inert inorganic absorbent material. Sweep up and remove to an approved disposal container. Dispose according to UK/EU environmental regulations.

7 - Handling and storage:

<u>General Handling Precautions:</u>	Handle in accordance with good occupational hygiene and safety practices in a well ventilated area. Avoid direct contact with skin and eyes. Avoid inhaling vapour. Use protective equipment such as gloves and eye goggles to minimise oil to skin contact. Do not eat, drink or smoke while handling.
<u>Fire Protection:</u>	Keep away from sources of ignition & naked flames. Avoid static discharges in working area.
<u>Storage Conditions:</u>	Store in full, dry, airtight containers away from sources of heat and light. Do not re-use the empty container.

8 - Exposure controls and personal protection:

<u>Respiratory Control:</u>	Where ventilation may be inadequate, wear self-contained breathing apparatus. Avoid breathing product vapour.
<u>Hand/Skin Protection:</u>	Wear impervious gloves and clothing – avoid all skin contact.
<u>Eye Protection:</u>	Wear eye protection e.g. safety goggles / glasses.

9 - Physical data and chemical properties:

<u>Form:</u>	Clear colourless to pale yellow
<u>Odour:</u>	liquid A slight characteristic odour
<u>Boiling point (°C):</u>	>100

10 - Stability and Reactivity:

<u>Conditions to avoid:</u>	High temperature near flash point
<u>Materials to avoid:</u>	Strong oxidising agents, acids and alkali's.
<u>Shelf Life:</u>	24 to 36 months when stored in nitrogen flushed containers
<u>Decomposition:</u>	Likely to cause smoke and acrid fumes during combustion: carbon dioxide, carbon monoxide and other non-identified organic compounds may be formed.

11 - Toxicological information:

<u>Non toxic product if used in correct dosages:</u>	Always dilute for skin or personal care. Skin patch testing is recommended for the final product.
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12 - Ecological information:



Avoid spillage in environment : If spilt follow clear up procedures in line with Government environmental legislation – call emergency services if large spillage. Prevent surface contamination of soil, ground & surface water.

Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

13- Disposal Considerations

Residue for disposal: According to local Government environmental regulations.

Waste packing: Observe local regulations.

Avoid disposing to drainage systems and into the environment – seek expert advice.

14 - Transport information:

No transport restrictions.

15 - Regulatory information:

Harmful, may cause sensitisation to skin, avoid contact. Not for oral consumption – may cause lung damage. If swallowed do not induce vomiting, seek medical advice immediately and show the container or label.

16 - Other information:

Cosmetics Directive 7th Amendment: Restrictions may apply. A source of Citral, Limonene and Linalool listed as sensitisers. Check maximum usage levels for skincare.

Q.C. REQUIREMENTS

In-line with general product specification. Always satisfy suitability for specific application.

The data provided in this material safety data sheet is meant to represent typical data/analysis for this product and is correct to the best of our knowledge. The data was obtained from current and reliable sources, but is supplied without warranty, expressed or implied, regarding it's' correctness or accuracy. It is the user's responsibility to determine safe conditions for the use of this product, and to assume liability for loss, injury, damage or expense arising from improper use of this product. The information provided does not constitute a contract to supply to any specification, or for any given application, and buyers should seek to verify their requirements and product use.

SAFETY DATA SHEET
TRADE NAME: PLAI OIL

REVISION: 05.03.2019

1 Identification of the Substance/Mixture and of the Company/Undertaking

1.1	Product Identifier	PLAI OIL
	EINECS CAS Number	84696-15-1
	CAS Number	8007-08-7
	EC Number	283-634-2
1.2	Relevant Identified Uses of the Substance or Mixture and Uses Advised Against	Concentrated material for manufacturing purposes only.
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 EMAIL: sales@madarcorporation.co.uk
1.4	Further Information Obtainable from	MADAR Corporation Limited
1.5	Emergency Telephone Number	01425 655555 (Office Hours: 9am to 5pm Mon-Fri)

2 Hazards Identification

2.1	Classification of the Substance or Mixture	FL 3	Flammable liquid, Category 3.
		AH 1	Aspiration hazard, Category 1.
		SCI 2	Skin corrosion/irritation, Category 2.
		SS 1	Skin sensitisation, Category 1.
		EDI 2A	Eye damage/irritation, Category 2A.
		EH A2	Aquatic hazard, acute, Category 2.
		EH C2	Aquatic hazard, long-term, Category 2.

2.2 Label Elements:

GHS Classification According to Regulation (EC) No. 1272/2008:

Hazard Pictograms:



Signal Word	DANGER
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Hazard Statements:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.



SAFETY DATA SHEET
TRADE NAME: PLAI OIL

REVISION: 05.03.2019

Precautionary Statements:

P261	Avoid breathing fumes.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P351	Rinse cautiously with water for several minutes.
2.3	Other Hazards Contains nothing known from the allergens list which may produce an allergic reaction. No further information available at this time.

3 Composition/Information on Ingredients

3.1	Substances	Description	PLAI OIL
		EC Number	283-634-2
		CAS Number	8007-08-7
		EINECS CAS Number	84696-15-1

4 First Aid Measures

4.1	Description of First Aid Measures	Take phrases in Sections 2 into account.
	After Inhalation	Remove person from the exposure area to fresh air. Contact a doctor if necessary.
	After Skin Contact	Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical advice if irritation persists or there is any sign of tissue damage.
	After Eye Contact	Flush with plenty of water and seek medical advice if necessary.
	Ingestion	Wash mouth with plenty of water and obtain medical advice immediately.
4.2	Most Important Symptoms and Effects, Both Acute and Delayed	No further information available at this time.
4.3	Indication of Immediate Medical Attention and Special Treatment Needed	No further information available at this time.

5 Fire-fighting Measures

Non-flammable.

5.1	Extinguishing Media	Carbon dioxide (CO ₂), foam or dry powder. DO NOT USE A DIRECT WATER JET.
5.2	Special Hazards Arising from the Substance or Mixture	May produce Carbon dioxide (CO ₂) and unidentified organic compounds.
5.3	Advice for Fire-fighters	Wear protective clothing and avoid inhalation of vapours. Keep containers cool with water spray.

6 Accidental Release Measures

6.1	Personal Precautions, Protective Equipment and Emergency Procedures	Remove all sources of ignition. Avoid inhalation, skin and eye contact. Ensure proper ventilation.
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SAFETY DATA SHEET
TRADE NAME: PLAI OIL

REVISION: 05.03.2019

6.2	Environmental Precautions	Do not discharge directly into drains or the soil. Keep away from surface and ground water.
6.3	Methods and Material for Containment and Cleaning Up	Soak up spillage with sand or other inert absorbent material such as earth or vermiculite; transfer used material to a suitable waste container and dispose in accordance with regulations.
6.4	Reference to Other Sections	Refer to information in Sections 7, 8 and 13.

7 Handling and Storage

7.1	Precautions for Safe Handling	Maintain good occupational and personal hygiene. Avoid inhalation and contact with skin and eyes.
7.2	Conditions for Safe Storage, including any Incompatibilities	Store in tightly sealed original containers away from ignition sources and in a cool place.
7.3	Specific End Use(s)	No further information available.

8 Exposure Controls/Personal Protection

8.1	Control Parameters	No information available.
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8.2 Exposure Controls:

Engineering Controls	No information available.
Individual Protection Measures	Refer to Section 5 for specific fire/chemical personal protective equipment advice. Always wash routinely before breaks, meals and at the end of the work period.
Eye/Face Protection	Wear safety goggles.
Hand Protection	Wear chemically resistant disposable gloves.
Other Skin Protection	Wear overalls. Always wash routinely before breaks, meals and at the end of the work period.
Respiratory Protection	Not generally required. Use inhalation protection in poorly ventilated areas.
Thermal Hazards	No information available.
Environmental Exposure Controls	No information available.

9 Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties:

Flash Point	47°C
Appearance	Colourless to yellow liquid.
Relative Density @ 20°C	0.880 to 0.925
Vapour Pressure	
Auto-ignition Temperature	
Odour Threshold	
pH	
Evaporation Rate	
Vapour Density	
Partition Coefficient	
Decomposition Temperature	



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Viscosity		
Explosive Properties		
Oxidising Properties		
9.2	Other Information	No further information available.

10 Stability and Reactivity

10.1	Reactivity	Not determined.
10.2	Chemical Stability	Not determined.
10.3	Possibility of Hazardous Reactions	Not determined.
10.4	Conditions to Avoid	Not determined.
10.5	Incompatible Materials	Highly reactive chemicals which may produce unknown reaction products and so cause additional hazards.
10.6	Hazardous Decomposition Products	Not determined.

11 Toxicological Information

11.1 Information on Toxicological Effects:

Acute Toxicity	No data available.
Skin Corrosion/Irritation	No data available.
Serious Eye Damage/Irritation	No data available.
Respiratory or Skin Sensitisation	No data available.
Germ Cell Mutagenicity	No data available.
Carcinogenicity	No data available.
Reproductive Toxicity	No data available.
STO-single Exposure	No data available.
STO-repeated Exposure	No data available.
Aspiration Hazard	No data available.
Information on Likely Routes of Exposure	No data available.
Symptoms Related to the Physical, Chemical and Toxicological Characteristics	No data available.
Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure	No data available.
Interactive Effects	No data available.
Other Information	No data available.

12 Ecological Information

12.1	Toxicity	No data available. Avoid soil, surface water and water-bearing stratum contamination.
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	No data available.

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13 Disposal Considerations

Please refer to the information in Section 8 (Exposure Controls and Personal Protection).

13.1	Waste Treatment Methods	Dispose in accordance with the law and local regulations. Treat as trade effluent.
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14 Transport Information

14.1	UN Number	1169
14.2	UN Proper Shipping Name	EXTRACTS, AROMATIC, LIQUID
14.3	Transport Hazard Class(es)	3
14.4	Packing Group	III
	Tunnel Code	(D/E)
14.5	Environmental Hazards	No relevant information available.
14.6	Special Precautions for User	No relevant information available.
14.7	Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

15 Regulatory Information

15.1	Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture	No relevant information available at this time.
15.2	Chemical Safety Assessment	A chemical safety assessment has not been carried out.

16 Other Information

16.1 Full List of Precautionary Phrases:

P210	Keep away from heat, hot surfaces, sparks, open flame and other ignition sources. No smoking.
P241	Use explosion-proof equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing fumes.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTRE.
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305	IF IN EYES:
P331	Do NOT induce vomiting.
P333+P313	If skin irritation or rash occurs: Get medical advice.
P337+P313	If eye irritation persists: Get medical attention.
P351	Rinse cautiously with water for several minutes.
P362+P364	Take off all contaminated clothing and wash it before reuse.



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P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents and container in accordance with local regulation.

WARNING/DISCLAIMER:

This information is valid when issued by MADAR Corporation Ltd.

The information contained herein is true and accurate to the best of our knowledge. All information is valid until revisions are issued. However, the accuracy of this information cannot be guaranteed by the company as the data has been obtained from different sources. We will not, therefore, accept liability for misuse of this data in damage or loss.



SPECIFICATION

MATERIAL	PLAI OIL
EINECS CAS NUMBER	84696-15-1
CAS NUMBER	8007-08-7
EC NUMBER	283-634-2
BOTANICAL NAME	<i>Zingiber cassumunar</i>
PLANT PART	Roots
ORIGIN	Thailand

Appearance	Colourless to yellow liquid
Odour	Characteristic
Specific Gravity @ 20°C	0.880 to 0.925
Refractive Index @ 20°C	1.4770 to 1.5090
Flashpoint	47°C
Solubility	Soluble in ethanol

Storage

Original unopened container, at ambient temperature, under dry conditions and away from light. The shelf life is not valid out of the mentioned conditions.

Handling

According to IFRA Code of Practice.

Recommended Uses

Multiple uses.

Caution

Concentrated product for industrial use avoid contact with eyes and mucous. Do not drink.

4 March 2019



VEGETARIAN DECLARATION

MATERIAL	PLAI OIL
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Vegan	Y	No ingredients of animal origin or animal derivatives, including additives and processing aids
Vegetarian	Y	No ingredients of animal origin, including additives and processing aids. No egg or dairy; bee products are allowed
Ovo-lacto Vegetarian	Y	May include egg, dairy and bee products. No other ingredients of animal origin or animal derivatives, including additives and processing aids are allowed

This information is valid when issued by MADAR Corporation Ltd. The information contained herein is true and accurate to the best of our knowledge. All information is valid until revisions are issued. We will not therefore accept liability for misuse of the data resulting in damage or loss.

4 March 2019