

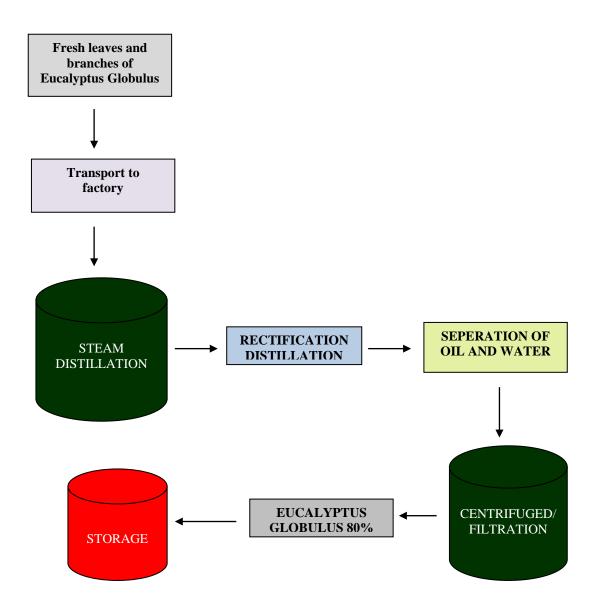
Certificate of Analysis

PRODUCT DETAILS						
Product Name		EUCALYPTUS BLUE GUM				
Product Code		OEEUCABLUEGUM				
Chemical Name:		Eucalyptus Globulus ext				
Batch/Lot Number		4393004				
Expiry Date		April 2023				
Manufacturing Process		Steam distillation of leaves and branches of Myrtaceae.				
Identification		CAS No: 84625-32-1 EINECS No: 283-4		106-2		
PHYSICAL AND CHEMIC	AL CHARA	CTERISTIC				
		SPECIFICATION RANGE		RESULTS		
Appearance		Liquid		Confor	ms	
Colour		Colourless to pale yellow		Confor	ms	
Odour		Characteristic		Confor	ms	
Relative Density @ 20°c		0.905 - 0.925		0.91	15	
Refractive Index @ 20°c		1.457 - 1.467		1.46	2	
Optical Rotation °		+5 to -20c		+2.1	5	
MAIN CONSTITUENTS						
CONSTITUENT RANGE	RESULTS	CONSTITUENT RANGE	RESULTS	CONSTITUE	ENTS RANGE	RESULTS
1, 8 Cineole >=70 <=95	80.40%	Dipentene >=4 <=12	6.93%	P-Cymene >=0.0)1 <=9	3.06%
Alpha Pinene >=0.01 <=9	3.70%	Beta Pinene >=0.01 <=1.5	0.55%			
STORAGE AND SHELF LI	FE					
Storage		Store in tightly closed contained	er with minim	um headspace in	a cool, dark and	dry place.

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 users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where MADAR make a declaration that allergenic material are not present in any product, this statement is made assuming reasonable levels of detection. It is impossible to guarantee the "absolute absence" of any material. It is the ultimate responsibility of the customer to ensure the safety of the intended final product containing this material, by carrying out additional tests if necessary.



EUCALYPTUS BLUE GUM FLOW CHART





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

1.1. Product identifier		
Product name	EUCALYPTUS BLUE GUM	
Product number	OEEUCABLUE	
Synonyms; trade names	Eucalyptus Oil Globulus	
REACH registration number	01-2119978250-37-0000	
CAS number	84625-32-1	
Alternative Cas Number		
EC number	283-406-2	
FEMA No:		
1.2. Relevant identified uses of	f the substance or mixture and uses advised against	
1.3. Details of the supplier of the	ne safety data sheet	
Supplier	MADAR Corporation Limited	
	19-20 Sandleheath Industrial Estate	
	Fordingbridge	
	Hampshire	
	SP6 1PA	
	Tel. +44 1425 655555 (Opening Hours 9am - 5pm)	
	e-mail sales@madarcorporation.co.uk	
1.4. Emergency telephone number		
SECTION 2: Hazards identification		
2.1. Classification of the substa	ance or mixture	
Classification (EC 1272/2008)		
Physical hazards	Flam. Liq. 3 - H226	

Classification (EC 1272	(2008)
Physical hazards	Flam. Liq. 3 - H226
Health hazards	Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304
Environmental hazards	Aquatic Chronic 2 - H411
Human health	The liquid may be irritating to skin. Fatal if swallowed May cause skin sensitisation or allergic reactions in sensitive individuals.
Environmental	The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
Physicochemical	Flammable liquid and vapour
2.2. Label elements	BiOrigins, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK Tel: 01425 655555 Email: technical@madarcorporation.co.uk

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EC number	283-406-2
	205-400-2
Pictogram	
Signal word	Danger
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. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	 P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. P331 Do NOT induce vomiting. P391 Collect spillage. P262 Do not get in eyes, on skin, or on clothing.
Contains	1, 8 cineole, dipentene, Alpha Pinene, Beta Pinene
Supplementary precautionary statements	 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground/ bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing vapour/ spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. 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/ shower. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P405 Store locked up. P501 Dispose of contents/ container in accordance with national regulations.
2.3. Other hazards	
SECTION 3: Composition/info	rmation on ingredients
3.2. Mixtures	
1, 8 cineole	>=70 <=95
CAS number: 470-82-6	EC number: 207-431-5
Classification Flam. Liq. 3 - H226 Skin Sens. 1B - H317 BiOrigin	ns, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire, SP6 1PA, UK
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dipentene		>=4 <=12
CAS number: 138-86-3	EC number: 205-341-0	
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		
p-Cymene		>=0.01 <=6
CAS number: 99-87-6	EC number: 202-796-7	
Classification Flam. Liq. 3 - H226 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411		
Alpha Pinene		>=0.01 <=9
CAS number: 80-56-8	EC number: 201-291-9	
Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304		
Alpha Dhellandrona		>=0.3 <=3
Alpha Phellandrene CAS number: 99-83-2	EC number: 202-792-5	~=0.3 \= 3
Classification Flam. Liq. 3 - H226 Asp. Tox. 1 - H304		
p-mentha-1,4-diene		>=0.01 <=6
CAS number: 99-85-4	EC number: 202-794-6	
Classification Flam. Liq. 3 - H226 Asp. Tox. 1 - H304		

7-methyl-3-methyleneocta	-1,6-diene >=0.5 <=2
CAS number: 123-35-3	EC number: 204-622-5
Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Asp. Tox. 1 - H304	
Beta Pinene	>=0.01 <=1.5
CAS number: 127-91-3	EC number: 204-872-5
Classification Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304	
p-menth-1-en-8-ol	>=0.01 <=2
CAS number: 98-55-5	EC number: 202-680-6
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 The Full Text for all R-Phra	ses and Hazard Statements are Displayed in Section 16.
SECTION 4: First aid meas	ures
4.1. Description of first aid i	measures Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide
	artificial respiration. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.
Skin contact	Wash skin thoroughly with soap and water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.
4.2. Most important sympto	ms and effects, both acute and delayed
Inhalation	May be fatal if swallowed and enters airways.
Skin contact	May cause an allergic skin reaction.
4.3. Indication of any imme	diate medical attention and special treatment needed
Notes for the doctor	Treat symptomatically.
SECTION 5: Firefighting me	easures
5.1. Extinguishing media	

Suitable extinguishing media Water spray. Carbon dioxide (CO2). Dry chemicals. Foam.

Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.		
5.2. Special hazards arising from	om the substance or mixture		
Specific hazards	Burning produces irritating, toxic and obnoxious fumes.		
5.3. Advice for firefighters			
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.		
SECTION 6: Accidental release	e measures		
6.1. Personal precautions, pro	tective equipment and emergency procedures		
Personal precautions	Provide adequate ventilation. Avoid contact with skin and eyes. Avoid inhalation of vapours. Wear protective clothing and gloves.		
For emergency responders	Wear an appropriate NIOSH / MSHA approved respirator if mist or vapour is generated.		
6.2. Environmental precaution	<u>S</u>		
Environmental precautions	Do not discharge into drains or watercourses or onto the ground.		
6.3. Methods and material for containment and cleaning up			
Methods for cleaning up	Absorb with liquid binding material (e.g sand, diatomaceous earth, acid or universal binding agents). Collect in closed and suitable containers for disposal.		
6.4. Reference to other section	ns		
Reference to other sections	For personal protection, see Section 8. For waste disposal, see Section 13.		
SECTION 7: Handling and sto	rage		
7.1. Precautions for safe handling			
Usage precautions	Apply good manufacturing practice and industrial hygiene practices. Keep containers sealed when not in use. Provide adequate ventilation. Keep away from heat, sparks and open flame.		
Advice on general occupational hygiene	Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.		
7.2. Conditions for safe storage, including any incompatibilities			
Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place.		
7.3. Specific end use(s)			

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters	
	1, 8 cineole (CAS: 470-82-6)
DNEL	Workers - Dermal; Long term systemic effects: 2 mg/kg General population - Oral; Long term systemic effects: 600 mg/kg General population - Dermal; Long term systemic effects: 1 mg/kg General population - Inhalation; Long term systemic effects: 1.74 mg/m³
PNEC	- STP; 10 mg/l - Soil; 0.2 mg/kg - Intermittent release; 0.57 mg/l - Fresh water; 0.057 mg/l - Marine water; 0.0057 mg/l - Sediment (Freshwater); 0.06732 mg/kg - Sediment (Marinewater); 0.00673 mg/kg
	Alpha Pinene (CAS: 80-56-8)
DNEL	Workers - Inhalation; Long term systemic effects: 5.98 mg/m ³ General population - Oral; Long term systemic effects: 0.31 mg/kg General population - Inhalation; Long term systemic effects: 1.06 mg/m ³
PNEC	- STP; 3.26 mg/l - Soil; 0.539 mg/kg - Fresh water; 0.004 mg/l - Marine water; 0.0004 mg/l - Sediment (Freshwater); 1.033 mg/kg - Sediment (Marinewater); 0.103 mg/kg
	7-methyl-3-methyleneocta-1,6-diene (CAS: 123-35-3)
DNEL	Workers - Dermal; Long term systemic effects: 0.83 mg/kg Workers - Inhalation; Long term systemic effects: 5.83 mg/m ³ General population - Dermal; Long term systemic effects: 0.42 mg/kg General population - Inhalation; Long term systemic effects: 1.25 mg/m ³
PNEC	- STP; 0.2 mg/l - Soil; 1.015 mg/kg - Fresh water; 0.00028 mg/l - Marine water; 0.0008 mg/l - Sediment (Freshwater); 5.022 mg/kg - Sediment (Marinewater); 0.502 mg/kg
8.2. Exposure controls	





Appropriate engineering controls

Eye/face protection

Provide adequate ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wear face protection.

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Hand protection	Chemical resistant gloves (PVC)
Other skin and body protection	Wear apron or protective clothing in case of contact.
Hygiene measures	Good personal hygiene procedures should be implemented.
Respiratory protection	Generally unnecessary in a well ventilated area.
Roopilatory protocilon	If ventilation is insufficient, respiratory protection must be worn.
Thermal hazards	Wear suitable protective clothing to prevent heat.
Environmental exposure controls	Avoid discharging into drains.

SECTION 9: Physical and Chemical Properties

9.1. Information on basi	ic physical and chemical properties
Appearance	Liquid.
Colour	Colourless to pale yellow.
Melting point	+5 to -20°C
Initial boiling point and i	range 153 - 184°C
Flash point	45.5 - 46.5°C PMCC (Pensky-Martens closed cup).
Upper/lower flammabilit explosive limits	ty or Technically not feasible.
Vapour pressure	ca 262 Pa @ 25°C
Relative density	0.905 - 0.925 @ 20°C
Partition coefficient	Eucalyptus is a natural complex substance. It is a mixture of several components, but three of them represent 90% of that mixture. LogP of each of these three components were calculated with the In Silico Algorythm For Environmental Risk Assessment toolbox, multilinear V.1.1. The range of the LogP varies as below. log Pow: 2.84 to 4.42
Auto-ignition temperatu	re 270°C
Viscosity	2.456 mPa s @ 20°C 1.627 mPa s @ 40°C
Explosive properties	Scientifically unjustified.
Optical rotation	
9.2. Other information	
Refractive index	1.457 - 1.467
SECTION 10: Stability a	and reactivity
10.1. Reactivity	
Reactivity	The substance is stable under normal storage and handling conditions.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures.
10.3. Possibility of haza	ardous reactions
Possibility of hazardous reactions	s None known.
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10.4. Conditions to avoid	
Conditions to avoid	Avoid heat, flames and other sources of ignition.
10.5. Incompatible materials	
Materials to avoid	Strong oxidising agents. Strong reducing agents.
10.6. Hazardous decompositi	on products
Hazardous decomposition products	Carbon dioxide (CO2). Carbon monoxide (CO).
SECTION 11: Toxicological in	formation
11.1. Information on toxicolog	ical effects
Acute toxicity - oral	
Notes (oral LD₅₀)	REACH dossier information. The oral LD50 for Eucalyptus oil is higher than 2000 mg.kg bw in mice therefore it is not classified according to the Annex VI to the Directive 67/548/EEC and the CLP Regulation (EC) No (1272-2008).
Acute toxicity - dermal	
Notes (dermal LD₅₀)	REACH dossier information. The dermal LD50 for Eucalyptus oil is higher than 5000 mg/kg bw in rabbits therefore it is not classified according to the Annex VI to the Directive 67/548/EEC and the CLP Regulation (EC) No (1272-2008).
Skin corrosion/irritation	
Skin corrosion/irritation	REACH dossier information., Irritating to skin.
SECTION 12: Ecological Info	mation
12.1. Toxicity	
12.2. Persistence and degrad	ability
Biodegradation	The substance is readily biodegradable.
12.3. Bioaccumulative potenti	al
Partition coefficient	Eucalyptus is a natural complex substance. It is a mixture of several components, but three of them represent 90% of that mixture. LogP of each of these three components were calculated with the In Silico Algorythm For Environmental Risk Assessment toolbox, multilinear V.1.1. The range of the LogP varies as below. log Pow: 2.84 to 4.42
12.4. Mobility in soil	
12.5. Results of PBT and vPv	
Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.
12.6. Other adverse effects	
SECTION 13: Disposal consid	derations
13.1. Waste treatment method	ds
Disposal methods	Recycling is preferred to disposal or burning. Disposal must be made according to official regulations. Must not be disposed together with household waste.
SECTION 14: Transport inform	mation
14.1. UN number	
UN No. (ADR/RID)	1169
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UN No. (IMDG)	1169
UN No. (ICAO)	1169
UN No. (ADN)	1169
14.2. UN proper shipping name	2
Proper shipping name (ADR/RID)	EXTRACTS, AROMATIC, LIQUID
Proper shipping name (IMDG)	EXTRACTS, AROMATIC, LIQUID
Proper shipping name (ICAO)	EXTRACTS, AROMATIC, LIQUID
Proper shipping name (ADN)	EXTRACTS, AROMATIC, LIQUID
14.3. Transport hazard class(e	<u>s)</u>
ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3
Transport labels	



14.4. Packing group	
ADR/RID packing group	Ш
IMDG packing group	Ш
ICAO packing group	Ш
ADN packing group	Ш

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	3
Emergency Action Code	3Y
Hazard Identification Number (ADR/RID)	30
Tunnel restriction code	(D/E)

SECTION 15: Regulatory information

15.2. Chemical safety assessment

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture			
EU legislation	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).		
Guidance	CHIP for everyone HSG228.		

SECTION 16: Other information			
Revision date	18/11/2016		
Revision	5		
Supersedes date	01/11/2016		
SDS number	4666		
Hazard statements in full	 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. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. 		

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Product Specification

PRODUCT DETAILS	
Product Name	EUCALYPTUS BLUE GUM
Product Code	OEEUCABLUE
Chemical Name:	Eucalyptus Globulus ext
Country of Origin	China
Tariff Number	33012941
Natural Status	We hereby declare, to the best of our knowledge and from information received from our supplier that this product is in accordance to the requirements of Articles 3 (2) (d) of Regulation (EC) 1334/2008 and therefore can be designated as natural.
Food Grade Status	We confirm, from information received from our supplier, that this product conforms with EU Regulations and can be used in food.
Kosher Certified	Yes
Halal Certified	We hereby delcare, from information received from our supplier, that this product does not contain any ingredient derived from animal origin, extracted from hair or feathers, animal fats, animal extracts, blood of any origin, blood plasma, pork and/or other meat products. This product does not contain alcohol (ethanol or grain alcohol) and has not been used in the manufacturing process.
GMO Declaration	To the best of our knowledge and from information received from our supplier, this product does not derive from genetically modified starting raw material, or additives that are derived from genetically modifed organisms.
Manufacturing Process	Steam distillation of leaves and branches of Myrtaceae.
Identification	CAS No: 84625-32-1 EINECS No: 283-406-2
PHYSICAL AND CHEMIC	CAL CHARACTERISTIC
Appearance	Liquid
Colour	Colourless to pale yellow
Odour	Characteristic
Relative Density @ 20°c	0.905 - 0.925
Refractive Index @ 20°c	1.457 - 1.467
Melting Point	+5 to -20c
Boiling Range	153 - 184°c
Flash Point	45.5 to 46.5°c PMCC (Pensky-Martens closed cup)
Vapour Pressure	ca 262 Pa @ 25°c
Viscosity	2.456 mPas @ 20°c / 1.627 mPas @ 40°c
Hydrocarbon content	18%
FRAGRANCE ALLERGEN	
Limonene/Dipentene (5989-2	
FOOD ALLERGENS	
NONE PRESENT	
IFRA	
·····	
STORAGE AND SHELF L	IFE
Storage	Store in tightly closed container with minimum headspace in a cool, dark and dry place.

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 users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where MADAR Corporation make a declaration that allergenic material are not present in any product, this statement is made assuming reasonable levels of detection. It is impossible to guarantee the "absolute absence" of any material. It is the ultimate responsibility of the customer to ensure the safety of the intended final product containing this material, by carrying out additional tests if necessary.

Vegan Statement

IDENTIFICATION			
Product:	Eucalyptus Blue Gum		
Cas No:	84625-32-1		
EINECS No:	283-406-2		
	STATEMENT		
We, MADAR Corp	poration Limited, from information received from our supplier, hereby		
declare that the r	naterial listed above is compliant with a vegan diet.		
It does not contain any animal ingredients or animal by products. No animal ingredients or by products are used in the manufacturing process.			
10 th January 2019)		
does not release the	sents to the best of our knowledge and from information received from our supplier. It buyer from the obligation to carry out an examination of the goods received. All uses re done under their own responsibility.		