



CERTIFICATE OF ANALYSIS
GARLIC OIL

Batch No: 4562303
Best Before End: November 2027

Description: A pale yellow to reddish orange clear mobile liquid. Pungent,
Odour: characteristic of Garlic

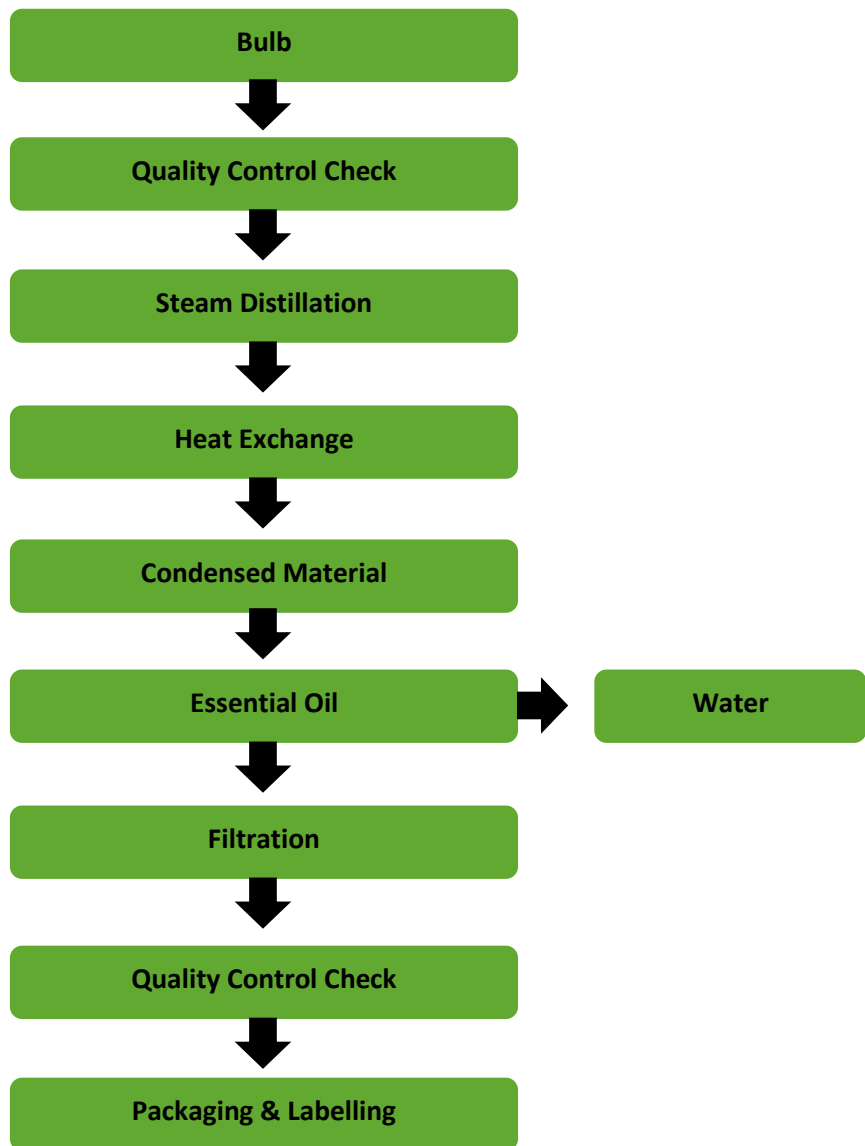
TEST	SPECIFICATION	ANALYSIS
Specific Gravity @ 25°C	1.050 – 1.100	1.082
Refractive Index @ 20°C	1.550 – 1.580	1.573

Product Name	Garlic Essential Oil				
INCI Name	Allium Sativum Bulb Oil				
Date	08/03/2021	Product Code		Revision	2

Material	Cas Number	Cosmetic Allergens Inclusion (%)
ALPHA-ISOMETHYLIONONE	127-51-5	-
AMYL CINNAMAL	122-40-7	-
AMYL CINNAMYL ALCOHOL	101-85-9	-
ANISE ALCOHOL	105-13-5	-
BENZYL ALCOHOL	100-51-6	-
BENZYL BENZOATE	120-51-4	-
BENZYL CINNAMATE	103-41-3	-
BENZYL SALICYLATE	118-58-1	-
BUTYLPHENYLMETHYLPROPIONAL	80-54-6	-
CINNAMAL	104-55-2	-
CINNAMYL ALCOHOL	104-54-1	-
CITRAL	5392-40-5	-
CITRONELLOL	106-22-9	-
COUMARIN	91-64-5	-
EUGENOL	97-53-0	-
EVERNIA FURFURACEA EXTRACT	90028-67-4	-
EVERNIA PRUNASTRI EXTRACT	90028-68-5	-
FARNESOL	4602-84-0	-
GERANIOL	106-24-1	-
HEXYL CINNAMAL	101-86-0	-
HYDROXYCITRONELLAL	107-75-5	-
HYDROXYISOHEXYL 3-CYCLOHEXENE	31906-04-4	-
ISO EUGENOL	97-54-1	-
LIMONENE	5989-27-5	-
LINALOOL	78-70-6	-
METHYL 2-OCTYNOATE	111-12-6	-

Date	08/03/2021
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Product Name	Garlic Essential Oil		
Date	08/03/2021		



IFRA

PRODUCT	Garlic Essential Oil		
INCI NAME	Allium Sativum Bulb Oil		
REVISION	1	DATE	12/03/2024

Flavour use consideration - Due to the possible ingestion of small amounts of fragrance ingredients from their use in products in Categories 1 and 6, materials must not only comply with IFRA Standards but must also be recognized as safe as a flavouring ingredient as defined by the IOFI Code of Practice (www.iofi.org). For more details see chapter 1 of the Guidance for the use of IFRA Standards.

We certify that the above compound is in compliance with the Standards of the International Fragrance Association (IFRA 50TH); provided it is used in the following class(es) at a maximum concentration level of the below.

IFRA CLASS(ES) - SEE ANNEX BELOW FOR DETAILS	MAX LEVEL OF USE (%)
CATEGORY 1	No limit
CATEGORY 2	No limit
CATEGORY 3	No limit
CATEGORY 4	No limit
CATEGORY 5A	No limit
CATEGORY 5B	No limit
CATEGORY 5C	No limit
CATEGORY 5D	No limit
CATEGORY 6	No limit
CATEGORY 7A	No limit
CATEGORY 7B	No limit
CATEGORY 8	No limit
CATEGORY 9	No limit
CATEGORY 10A	No limit
CATEGORY 10B	No limit
CATEGORY 11A	No limit
CATEGORY 11B	No limit
CATEGORY 12	No limit

For other kinds of application or use at higher concentration levels, a new evaluation may be needed.

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.

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- Note 1: It is recommended 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.
- Note 2: Trials must be performed to satisfy suitability for specified application.

ANNEX - DEFINITION OF IFRA CLASSES			
CATEGORY	FINISHED PRODUCTS	FLAVOUR USE	PHOTOTOXICITY
1	Lip products of all types (solid and liquid lipsticks, balms, clear and coloured, etc.). Children's Toys	YES	Applicable (Leave-on Products)
2	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-up, under-arm, deo-cologne, etc.). Body sprays (including mist).	NO	Applicable (Leave-on Products)
3	Eye products of all types (eye-shadow, mascara, eyeliner, eye make-up, eye masks, eye pillows, etc.) including eye care and moisturizer. Face make-up and foundation. Make-up remover for face and eyes. Nose pore strips. Wipes refreshing tissues for face, neck, hands, body. Body and face paint (for children and adults). Facial masks for face and around the eyes.	NO	Applicable (Leave-on Products)
4	Hydroalcoholic and non-hydroalcoholic fine fragrance of all types (Eau De Toilette, Parfum, Cologne, Solid Perfume, Fragrancing Cream, Aftershaves of all types etc.) Fragranced Bracelets. Ingredients of perfume kits and fragrance mixtures for cosmetic kits. Scent pads, foil packs. Scent strips for hydroalcoholic products.	NO	Applicable (Leave-on Products)
5A	Body Creams, oils, lotions of all types. Foot care products (creams and powders). Insect repellent (intended to be applied to skin). All powders and talc (excluding baby powders and talc).	NO	Applicable (Leave-on Products)
5B	Facial toner. Facial Moisturizers and creams.	NO	Applicable (Leave-on Products)
5C	(women's facial creams) Hand cream. Nail care products including cuticle creams, etc. Hand	NO	Applicable (Leave-on Products)

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	sanitizers.		
5D	Baby cream/lotion, baby oil, baby powders and talc.	NO	Applicable (Leave-on Products)
6	Toothpaste. Mouthwash, including breath sprays. Toothpowder, strips, mouthwash tablets.	YES	Applicable (Leave-on Products)
7A	Hair permanent or other hair chemical treatments (rinse-off) (e.g., relaxers), including rinse off hair dyes	NO	Applicable (Leave-on Products)
7B	Hair sprays of all types (pumps, aerosol sprays, etc.). Hair styling aids non-spray (mousse, gels, leave-on conditioners). Hair permanent or other hair chemical treatments (leave-on) (e.g., relaxers), including leave-on hair dyes. Shampoo – Dy (waterless shampoo). Hair deodorizer.	NO	Applicable (Leave-on Products)
8	Intimate wipes. Tampons. Baby Wipes. Toilet paper (wet).	NO	Applicable (Leave-on Products)
9	Bar soap. Shampoo of all types. Cleanser for face (rinse-off). Conditioner (rinse-off) Liquid soap. Body washes and shower gels of all types. Baby wash, bath, shampoo. Bath gel foams, mousses, salts, oils, and other products added to bath water. Foot care products (feet are placed in bath for soaking). Shaving creams of all types (stick, gel, foams, etc.). All depilatories (including facial) and waxes for mechanical hair removal. Shampoo for pets.	NO	Applicable (Rinse-off Products)
10A	Hand wash laundry detergent (including concentrates). Laundry pre-treatment of all types (e.g., paste, sprays, sticks). Hand dishwashing detergent (including concentrates). Hard surface cleaners of all types (bathroom and kitchen cleansers, furniture polish, etc.). Machine laundry detergents with skin contact (e.g., liquids, powders) including concentrates. Dry cleaning kits. Toilet seat wipes. Fabric softeners of all types including fabric softener sheets. Household cleaning products, other types including fabric cleaners, soft surface cleaners, carpet cleaners, furniture polishes spray and wipe, leather cleaning wipes, stain removers, fabric enhancing sprays, treatment products	NO	Applicable (Rinse-off Products)

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	for textiles (e.g., starch sprays, fabric treatment with fragrances after wash, deodorizers for textiles or fabrics). Floor wax. Fragranced oil for lamp ring, reed diffusers, pot-purri, liquid refills for air fresheners (non-cartridge systems), etc. Ironing water (odorized distilled water).		
10B	Animal sprays – sprays applied to animals of all types. Air fresheners sprays, manual, including aerosol and pump. Aerosol spray insecticides.	NO	Applicable (Rinse-off Products)
11A	Feminine hygiene conventional pads, liners, interlabial pads. Diapers (baby and adult). Adult incontinence pant, pad. Toilet paper (dry).	NO	Not Applicable (leave-on products without UV exposure)
11B	Tights with moisturizers. Scented socks, gloves. Facial tissues (dry tissues). Napkins. Paper Towels. Wheat bags. Facial masks (paper/protective) e.g., surgical masks used as medical device. Fertilizers, solid (pellet or powder).	NO	Applicable (Leave-on Products)
12	Candles of all types (including encased). Laundry detergents for machine wash with minimal skin contact (e.g., Liquid tabs, pods). Automated air fresheners and Fragrancing of all types (concentrated aerosol with measured doses (range 0.05 – 0.5 ml/spray) plug-ins, closed systems, solid substrate, membrane delivery, electrical, powders, fragrancing sachets, incense, liquid refills (cartridge), air freshening crystals. Air delivery systems. Cat litter. Cell phone cases. Deodorizers/maskers not intended for skin contact (e.g., fabric drying machine deodorizers and carpet powders). Fuels. Insecticides (e.g., mosquito coil, paper, electrical, for clothing) excluding aerosols/sprays. Joss sticks or incense sticks. Dishwasher detergent and deodorizers – for machine wash. Olfactive board games. Paints. Plastic articles (excluding toys). Scratch and sniff. Scent pack. Scent delivery system (using dry air technology). Show polishes. Rim blocks (Toilet).	NO	Not Applicable (Non-skin contact products)

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.

01. IDENTIFICATION OF THE SUBSTANCE/PREPARATION & THE COMPANY/UNDERTAKING

1.1 Product Identifier					
Product Name		Garlic Oil			
Biological Definition		Allium Sativum Bulb Oil is the oil steam distilled from the bulb of the Garlic, <i>Allium sativum L., Liliaceae.</i>			
INCI Name		Allium Sativum Bulb Oil			
Synonyms & Trade Names		-			
CAS-No	8000-78-0	EC No.	-	EINECS No.	-
1.2 Relative identified uses of the substance or mixture and uses advised against					
Suitable for use in flavours and professional applications only.					
1.3 Details of the supplier of the safety data sheet					
Healthy Story LLP 27 Old Gloucester Street London, WC1N 3AX, United Kingdom					
1.4 Emergency Tel. No.		+44 800 048 5030			

02. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
The full text for all hazard statements is displayed in section 16.	
Classification (EC 1272/2008)	
Physical hazards: <ul style="list-style-type: none">- Flam. Liq. 3 – H226 Health hazards: <ul style="list-style-type: none">- Acute Tox. 4 – H302- Skin Irrit. 2 – H315- Skin Sens 1B – H317- Eye Dam 2 – H319	
2.2 Label Elements	
Label in accordance with (EC) No 1272/2008	
	

Signal Word	Warning.
Contains	- Diallyl disulphide - Diallyl trisulphide
Hazard Statements	
<p>H226 - Flammable liquid and vapour. H302 - Harmful if swallowed. H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H319 - Causes serious eye damage.</p>	
Precautionary Statements	
<p>P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking P280 - Wear protective gloves/protective clothing/eye protection/face protection P301/P310 - IF SWALLOWED - Immediately call a POISON CENTER or doctor/physician P331 - Do NOT induce vomiting P302/P352 - IF ON SKIN - Wash with plenty of soap and water P305/P351/P338 - IF IN EYES - Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337/P313 - If eye irritation persists: Get medical advice/attention</p>	
Supplementary Precautionary Statements	
P264 - Wash hands and exposed skin thoroughly after handling.	
2.3 Other Hazards	
PBT or vPvB according to Annex XIII	No additional data
Adverse physio-chemical properties	No additional data
Adverse effects on human health	H313 - May be harmful in contact with skin.

03. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances	
<p>≤ 30% Diallyl Disulphide CAS: 2179-57-9 Classification (EC 1272/2008)</p> <ul style="list-style-type: none"> - Flam. Liq. 3 - H226 - Acute Tox. 3 - H301 - Skin Irrit. 2 - H315 - Skin Sens. 1 - H317 - Eye Irrit. 2 - H319 	
<p>≤ 15% Diallyl Trisulphide CAS: 2050-87-5 Classification (EC 1272/2008)</p> <ul style="list-style-type: none"> - Acute Tox. 4 - H302 	
<p>≤ 10% Diallyl Sulphide CAS: 592-88-1 Classification (EC 1272/2008)</p> <ul style="list-style-type: none"> - Flam. Liq. 3 - H226 	

04. FIRST AID MEASURES

4.1 Description of first aid measures	
Inhalation	Remove to fresh air. Remain at rest in a position which is comfortable for breathing. If discomfort occurs/continues, seek medical attention.
Ingestion	Do NOT induce vomiting. Ingestion may cause nausea and vomiting. Immediately rinse mouth and provide fresh air. Seek medical attention.
Skin Contact	Remove contaminated clothing immediately and wash before reuse. Wash skin with soap and water. Seek medical attention.
Eye Contact	Immediately rinse eyes with plenty of clean water for a minimum of fifteen minutes. Remove any contact lenses and open eyes wide apart and continue rinsing. Seek medical attention.
4.2 Most important symptoms and effects, both acute and delayed	
No additional data	
4.3 Indication of any immediate medical attention and special treatment needed	
Treat symptomatically.	

05. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media	
Carbon Dioxide, Dry Chemical, Foam. Do NOT use water.	
5.2 Special hazards arising from the product	
Flammable liquid. Keep product and empty containers away from heat, sparks and open flame. A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke. Containers close to fire should be removed or cooled with water. Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO ₂), Carbon monoxide (CO), other toxic gases.	
5.3 Advice for firefighters	
Avoid inhalation of generated fumes or vapours. Wear self-contained respiratory equipment and appropriate protective clothing at all times.	

06. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	
Avoid heat, sparks and open flame. Wear protective clothing as described in Section 8 of this safety data sheet. Handle the product using protective gloves resistant to the chemicals exposed. Avoid contact with skin and inhalation of its vapours. Maintain adequate ventilation in the working area after spilling.	
6.2 Environmental Precautions	
Do not discharge into drains, water courses or onto the ground.	
6.3 Methods and material for containment and cleaning up.	

Absorb with liquid binding material e.g., sand, diatomaceous earth or vermiculite. Collect in closed and suitable containers for disposal in accordance with local, state or national legislation. Prevent any material from entering drains or waterways. Wash spill site after removal with a detergent.

6.4 Reference to other sections

Section 13

07. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. Wear personal protective equipment. Do not breathe vapours or spray mist. Use only in area provided with adequate ventilation. Keep away from heat, sparks and open flame. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take necessary action to avoid static discharge as this might cause ignition of vapours.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, dark, well-ventilated area. Protect from heat, freezing and light including sunlight. Keep all containers tightly sealed when not in use.

7.3 Specific end use(s)

No additional data

08. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No additional data

8.2 Exposure controls

Protective Equipment



Process Conditions	Provide eyewash station. Provide safety showers.
Engineering Measures	Provide adequate ventilation or respiratory protection.
Respiratory Equipment	Usually not required in a well-ventilated area. In confined or poorly ventilated area approved respiratory masks may be required.
Hand Protection	Wear suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.
Eye Protection	Avoid contact with eyes. Wear safety goggles in accordance with standard EN166.
Other Protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene Measures	Good hygiene practices are always recommended, especially when handling oils, chemicals or any other similar types of material.
Personal Protection	Use of chemical resistant clothing is recommended when handling.

Skin Protection	Wear appropriate protective clothing to prevent skin contact. Work clothing worn by personnel should be laundered regularly. After contact with the product, all parts of the body that have been exposed must be washed thoroughly.
Environmental Exposure Controls	Avoid discharging into drainage water. Only eliminate by authorised companies.

09. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties	
Appearance	Liquid
Colour	Yellow – Reddish Orange
Odour	Characteristic; Garlic
Relative Density	~1.075 @ 20°C
Flash Point (°C)	30.0
Refractive Index	~1.575 @ 20°C
Melting Point (°C)	No additional data
Boiling Point (°C)	No additional data
Vapour Pressure	No additional data
Solubility in Water @20°C	Insoluble in water.
Auto-ignition temperature (°C)	No additional data
9.2 Other information	
No additional data	

10. STABILITY AND REACTIVITY

10.1 Reactivity	
Presents no significant reactivity hazards. Stable under normal temperature conditions and recommended use.	
10.2 Chemical stability	
Stable under the recommended handling and storage conditions in section 7. Explosion data Sensitivity to Mechanical Impact: None. Sensitivity to Static Discharge: None.	
10.3 Possible hazardous reactions	
Not expected under normal conditions of use.	
10.4 Conditions to Avoid	
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Prevent storing the product in open containers for long periods so as to prevent product deterioration.	
10.5 Incompatible materials	
Avoid contact with strong acids, alkalis or oxidising agents.	

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Do not allow entry into drains or waterways. Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals. Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company. Do not contaminate the ground or water with waste. Do not dispose of waste into the environment. Empty container completely. Keep label(s) on container. Dispose of via a certified disposal contractor.

14. TRANSPORT INFORMATION

14.1 UN number

UN No. Road	1197
UN No. SEA	1197
UN No. AIR	1197

14.2 UN proper shipping name

EXTRACTS, FLAVOURING, LIQUID

14.3 Transport hazard class(es)

ADR/RID

ADR/RID– Class 3
ADR Classification Code – F1
Special provisions – 601
Limited quantities – 5L
Expected quantities – E1
Emergency Action Code – 3Y
Tunnel Restriction Code – D/E

IMDG

IMDG – Class 3
Special Provisions – 601
Limited quantities – 5L
Expected quantities – E1
IMDG EMS – F-E, S-D
Stowage and Handling – Category A

ICAO/IATA

ICAO/IATA– Class 3
IATA proper shipping name - EXTRACTS, AROMATIC, LIQUID
Expected quantities – E1

Transport Labels



14.4 Packing group

ADR/RID Packing group	III
IMDG Packing group	III
ICAO Packing group	III

14.5 Environmental hazards

Not classed as environmentally Hazardous Substance/Marine Pollutant.

14.6 Special precautions for user

See sections 6 – 8.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Not defined.

15. REGULATORY INFORMATION

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

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Workplace Exposure Limits EH40. CHIP for everyone HSG (108). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical safety assessment

No additional data

16. OTHER INFORMATION

Hazard Statements in Full	H226 - Flammable liquid and vapour. H301 - Toxic if swallowed H302 - Harmful if swallowed. H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation
Revision Date	08/03/2021
Rev No	5

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.

Product Name	Garlic Essential Oil		
Date	08/03/2021		Rev 5
Description	Allium Sativum Bulb Oil, steam distilled oil from garlic bulb.		
Appearance	Liquid, Yellow – Reddish Orange		
Odour	Characteristic		
Origin	China/India		
INCI Name	Allium Sativum Bulb Oil		
CAS Number	8000-78-0	EC Number	-

TEST SPECIFICATION

Analytical Test	Specification Range
Specific Gravity @ 20°C (g/ml)	1.050 – 1.100
Refractive Index @ 20°C	1.550 – 1.580

STORAGE

Store in a cool, dry, well-ventilated place. Keep away from heat and sunlight.

STABILITY

If stored for twenty-four months, check quality of product before use.

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Please note as this is a wholly natural material some parameters, in particular, appearance, colour and odour, may change due to natural variation and climate change. This in no way affects the quality and efficacy of the product.

Additional Data

All information has been provided/confirmed by our suppliers of these products.

Product Name: Garlic Essential Oil

We can confirm this product is suitable for vegan use. It does not contain and is not derived from any genetically modified materials. Not expected/known to contain and CMR substances.

07/12/2022.