42109 State Route 18
Wellington, OH 44090
PHONE: **440-647-0100** FAX: **440-647-0220**
http://www.naturesgardencandles.com
E-mail address: info@naturesgardencandles.com

SDS Type: GHS / EU

Safety Data Sheet

Product: **Citronella Berry Fragrance Oil**

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade Name: Citronella Berry Fragrance Oil

1.2 Relevant identified product use

Intended use: Compound used in customer substance/mixture/product

1.3 Details of the manufacturer/supplier of the safety data sheet

Supplier: **Natures Garden Fragrances**
42109 State Route 18
Wellington, OH 44090
PHONE: 440-647-0100 FAX: 440-647-0220
http://www.naturesgardencandles.com
Department E-mail address: info@naturesgardencandles.com

2. Hazards Identification

2.1 Classification of the substance or mixture

This mixture has not been tested as a whole. The effects, listed below, are based on evaluation of individual components in accordance with the provisions of the regulation(s) noted below.

Classification according to GHS Regulation (EC) No 1272/2008

Flammable Liquids, Category 4	H227: Combustible liquid
Acute Toxicity Oral, Category 4	H302: Harmful if swallowed
Acute Toxicity Dermal, Category 5	H313: May be harmful in contact with skin
Skin Corrosion/Irritation, Category 2	H315: Causes skin irritation
Sensitization, Skin, Category 1A	H317: May cause an allergic skin reaction
Eye Damage/Eye Irritation, Category 2A	H319: Causes serious eye irritation
Acute Toxicity Inhalation, Category 5	H333: May be harmful if inhaled
Aquatic Acute Toxicity, Category 1	H400: Very Toxic to aquatic life
Aquatic Chronic Toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects

Classification EU (67/548/EEC, 199/45/EC)

N Dangerous for the Environment
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Xi Irritant
R43 : May cause sensitization by skin contact
Xn Harmful
R22 : Harmful if swallowed

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms

Nature's Garden
42109 State Route 18
Wellington, OH 44090
PHONE: **440-647-0100** FAX: **440-647-0220**
http://www.naturesgardencandles.com
E-mail address: info@naturesgardencandles.com

SDS Type: GHS / EU

Safety Data Sheet

Product: **Citronella Berry Fragrance Oil**




Signal Word: Warning

Hazard statements

H227	Combustible liquid
H302	Harmful if swallowed
H313	May be harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H333	May be harmful if inhaled
H400	Very Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention:

P235	Keep cool
P264	Wash hands thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release to the environment

Response:

P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth
P302 + P352	IF ON SKIN: Wash with soap and water
P304 + P312	IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes Remove contact lenses if present and easy to do. Continue rinsing
P333 + P313	If skin irritation or a rash occurs: Get medical advice/attention
P337 + P313	If eye irritation persists: Get medical advice/attention
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P370 + P378	In case of fire: Use Carbon dioxide (CO2), Dry chemical, or Foam for extinction. Do not use a direct water jet on burning material
P391	Collect Spillage

2.3 Other Hazards

no data available

3. Composition/Information on Ingredients

3.1 Mixtures

This product is a complex mixture of ingredients, which contains among others the following substance(s), presenting a health or environmental hazard within the meaning of the UN Globally Harmonized System of Classification and Labeling of Chemicals (GHS):

Nature's Garden
42109 State Route 18
Wellington, OH 44090
PHONE: **440-647-0100** FAX: **440-647-0220**
http://www.naturesgardencandles.com
E-mail address: info@naturesgardencandles.com

Safety Data Sheet

Product: **Citronella Berry Fragrance Oil**

CAS# Ingredient	EC#	Conc. Range	GHS Classification	EU Classification
120-51-4 *Benzyl Benzoate*	204-402-9	60 - 70 %	H302; H313; H400; H411	N - R51/53; Xn - R22
77-83-8 *Ethyl methylphenylglycidate*	201-061-8	10 - 20 %	H317; H401; H411	N - R51/53; Xi - R43
106-23-0 *Citronellal*	203-376-6	2 - 5 %	H227; H303; H315; H319; H401; H411	N - R51/53; Xi - R38, R43
78-69-3 *Tetrahydrolinalool*	201-133-9	2 - 5 %	H227; H315; H319; H401	N - R51/53; Xi - R38
706-14-9 *gamma-Decalactone*	211-892-8	1 - 2 %	H316	
106-24-1 *Geraniol*	203-377-1	1 - 2 %	H303; H315; H317; H318; H401	Xi - R38, R41, R43
5471-51-2 *4-(p-Hydroxyphenyl)-2-butanone (p-Hydroxybenzyl acetone)*	226-806-4	1 - 2 %	H302; H402	Xn - R22
106-22-9 *Citronellol*	203-375-0	1 - 2 %	H303; H313; H315; H317; H319; H401	N - R51/53; Xi - R38, R43
100-52-7 *Benzaldehyde*	202-860-4	1 - 2 %	H227; H302; H316; H319; H332; H335; H401	Xi - R36, R37; Xn - R20, R22
103-60-6 *2-Phenoxyethyl isobutyrate*	203-127-1	1 - 2 %	H316	
60-12-8 *phenethyl alcohol*	200-456-2	1 - 2 %	H302; H313; H316; H319	Xi - R36; Xn - R22
10094-34-5 *a ,a-Dimethylphenethyl butyrate*	233-221-8	1 - 2 %	H316; H401; H411	N - R51/53
8000-29-1 *Cymbopogon Nardus (Citronella) Oil*	289-753-6	0.1 - 1.0 %	H227; H303; H304; H313; H315; H318; H341; H351; H401; H411	N - R51/53; Xi - R38, R41, R43; Xn - R40, R65, R68
57378-68-4 *delta-1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one (delta-Damascone)*	260-709-8	0.1 - 1.0 %	H302; H315; H317; H318; H400; H410	N - R50/53; Xi - R38, R43; Xn - R22

See Section 16 for full text of GHS classification codes

Total Hydrocarbon Content (% w/w) = 0.52

4. First Aid Measures

4.1 Description of first aid measures

Inhalation: Remove from exposure site to fresh air and keep at rest. Obtain medical advice.

Eye Exposure: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.

Skin Exposure: Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.

Ingestion: Rinse mouth with water and obtain medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: no data available

Nature's Garden
42109 State Route 18
Wellington, OH 44090
PHONE: **440-647-0100** FAX: **440-647-0220**
http://www.naturesgardencandles.com
E-mail address: info@naturesgardencandles.com

Safety Data Sheet

Product: **Citronella Berry Fragrance Oil**

Risks: Refer to Section 2.2 "Hazard Statements"

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Refer to Section 2.2 "Response"

5. Fire-Fighting measures

5.1 Extinguishing media

Suitable: Carbon dioxide (CO2), Dry chemical, Foam

Unsuitable Do not use a direct water jet on burning material

5.2 Special hazards arising from the substance or mixture

During fire fighting: Water may be ineffective

5.3 Advice for firefighters

Further information: Standard procedure for chemical fires

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

6.2 Environmental precautions

Keep away from drains, soil, and surface and groundwater.

6.3 Methods and materials for containment and cleaning up

Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapors. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

6.4 Reference to other sections

Not Applicable

7. Handling and Storage

7.1 Precautions for safe handling

Apply according to good manufacturing and industrial hygiene practices with proper ventilation. Do not drink, eat or smoke while handling. Respect good personal hygiene.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry and ventilated area away from heat sources and protected from light in tightly closed original container. Avoid plastic and uncoated metal container. Keep air contact to a minimum.

7.3 Specific end uses

No information available

8. Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits: Contains no substances with occupational exposure limit values

Engineering Controls: Use local exhaust as needed.

8.2 Exposure controls - Personal protective equipment

Nature's Garden
42109 State Route 18
Wellington, OH 44090
PHONE: **440-647-0100** FAX: **440-647-0220**
http://www.naturesgardencandles.com
E-mail address: info@naturesgardencandles.com

Safety Data Sheet

Product: **Citronella Berry Fragrance Oil**

Eye protection:	Tightly sealed goggles, face shield, or safety glasses with brow guards and side shields, etc. as may be appropriate for the exposure
Respiratory protection:	Avoid excessive inhalation of concentrated vapors. Apply local ventilation where appropriate.
Skin protection:	Avoid Skin contact. Use chemically resistant gloves as needed.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Conforms to Standard
Odor:	Conforms to Standard
Color:	Colorless to Pale Yellow
Viscosity:	Liquid
Freezing Point:	Not determined
Boiling Point:	Not determined
Melting Point:	Not determined
Flashpoint:	181 F (82.78 C)
Auto flammability:	Not determined
Explosive Properties:	None Expected
Oxidizing properties:	None Expected
Vapor Pressure (mmHg@20 C):	0.0714
%VOC:	6.7257
Specific Gravity @ 25 C:	1.0560
Density @ 25 C:	1.0530
Refractive Index @ 20 C:	1.5310
Soluble in:	Oil

10. Stability and Reactivity

10.1 Reactivity	None
10.2 Chemical stability	Stable
10.3 Possibility of hazardous reactions	None known
10.4 Conditions to avoid	None known
10.5 Incompatible materials	Strong oxidizing agents, strong acids, and alkalis
10.6 Hazardous decomposition products	None known

11. Toxicological Information

11.1 Toxicological Effects

Acute Toxicity Estimates (ATEs) based on the individual Ingredient Toxicity Data utilizing the "Additivity Formula"

Acute toxicity - Oral - mg/kg	(LD50: 1,919.98) Harmful if swallowed
Acute toxicity - Dermal - mg/kg	(LD50: 3,990.41) May be harmful in contact with skin

Nature's Garden
42109 State Route 18
Wellington, OH 44090
PHONE: **440-647-0100** FAX: **440-647-0220**
http://www.naturesgardencandles.com
E-mail address: info@naturesgardencandles.com

Safety Data Sheet

Product: **Citronella Berry Fragrance Oil**

Acute toxicity - Inhalation - mg/L/4hr	(LC50: 59.54) May be harmful if inhaled
Skin corrosion / irritation	Causes skin irritation
Serious eye damage / irritation	Causes serious eye irritation
Respiratory sensitization	Not classified - the classification criteria are not met
Skin sensitization	May cause an allergic skin reaction
Germ cell mutagenicity	Not classified - the classification criteria are not met
Carcinogenicity	Not classified - the classification criteria are not met
Reproductive toxicity	Not classified - the classification criteria are not met
Specific target organ toxicity - single exposure	Not classified - the classification criteria are not met
Specific target organ toxicity - repeated exposure	Not classified - the classification criteria are not met
Aspiration hazard	Not classified - the classification criteria are not met

12. Ecological Information

12.1 Toxicity

Acute aquatic toxicity	Very Toxic to aquatic life
Chronic aquatic toxicity	Toxic to aquatic life with long lasting effects
Toxicity Data on soil	no data available
Toxicity on other organisms	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 Other adverse effects	no data available

13. Disposal Conditions

13.1 Waste treatment methods

Do not allow product to reach sewage systems. Dispose of in accordance with all local and national regulations. Send to a licensed waste management company. The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container.

14. Transport Information

Regulator	Class	Pack Group	Sub Risk	UN-nr.
U.S. DOT (Non-Bulk)	Not Regulated - Not Dangerous Goods			
Chemicals NOI				
ADR/RID (International Road/Rail)				
Environmentally Hazardous Substance, Liquid, n.o.s.	9	III		UN3082
IATA (Air Cargo)				

42109 State Route 18
Wellington, OH 44090
PHONE: **440-647-0100** FAX: **440-647-0220**
http://www.naturesgardencandles.com
E-mail address: info@naturesgardencandles.com

Safety Data Sheet

Product: **Citronella Berry Fragrance Oil**

Environmentally Hazardous Liquid, n.o.s.	Substance,	9	III	UN3082
IMDG (Sea)				
Environmentally Hazardous Liquid, n.o.s.	Substance,	9	III	UN3082

15. Regulatory Information

Additional European Regulations:

European Union (EINECS, ELINCS or NLP): 100.00% (by Wt) of the components are listed or exempt.

Additional Asian Regulations:

Australian AICS: 100.00% (by Wt) of the ingredients on AICS or notified.

Chinese IECS: 100.00% (by Wt) of the ingredients on IECS.

Japan ENCS: 99.99% (by Wt) of the ingredients on ENCS, fall within the 1000 kilogram per annum exemption or have been notified.

Korea KECL: 96.63% (by Wt) of the ingredients on KECL, fall within the 100 kilogram per annum exemption or have been notified.

New Zealand NZIoC: 99.93% (by Wt) of the ingredients on NZIoc.

Philippines PICCS: 100.00% (by Wt) of the ingredients on PICCS.

The Status of the following ingredient(s) is NOT known for the registration lists noted;

Lists noted within <> brackets after name

23696-85-7	245-833-2	0.01 - 0.1%	1-(2,6,6-Trimethylcyclohexa-1,3-dienyl)-2-buten-1-one (Damascenone) : < KECL>
491-07-6	207-727-4	0.01 - 0.1%	d,l-Isomenthone : < KECL>
104-20-1	203-184-2	2 - 5 %	4-(p-Methoxyphenyl)-2-butanone : < KECL>
16409-45-3	240-459-6	0.01 - 0.1%	Menthyl acetate : < NZIoC>

16. Other Information

GHS H-Statements referred to under section 3

Total Fractional Values

(TFV) Risk	(TFV) Risk
(1.35) Skin Corrosion/Irritation, Category 2	(1.50) Sensitization, Skin, Category 1A
(3.27) Eye Damage/Eye Irritation, Category 2A	(2.51) Aquatic Acute Toxicity, Category 1
(3.63) Aquatic Chronic Toxicity, Category 2	

Department E-mail address: info@naturesgardencandles.com

42109 State Route 18
Wellington, OH 44090
PHONE: **440-647-0100** FAX: **440-647-0220**
http://www.naturesgardencandles.com
E-mail address: info@naturesgardencandles.com

SDS Type: GHS / EU

Safety Data Sheet

Product: **Citronella Berry Fragrance Oil**

Remarks

This safety data sheet is based on the properties of the material known to Natures Garden Fragrances™ 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. For such a safety assessment Natures Garden Fragrances™ holds no responsibility. This document is not intended for quality assurance purposes.