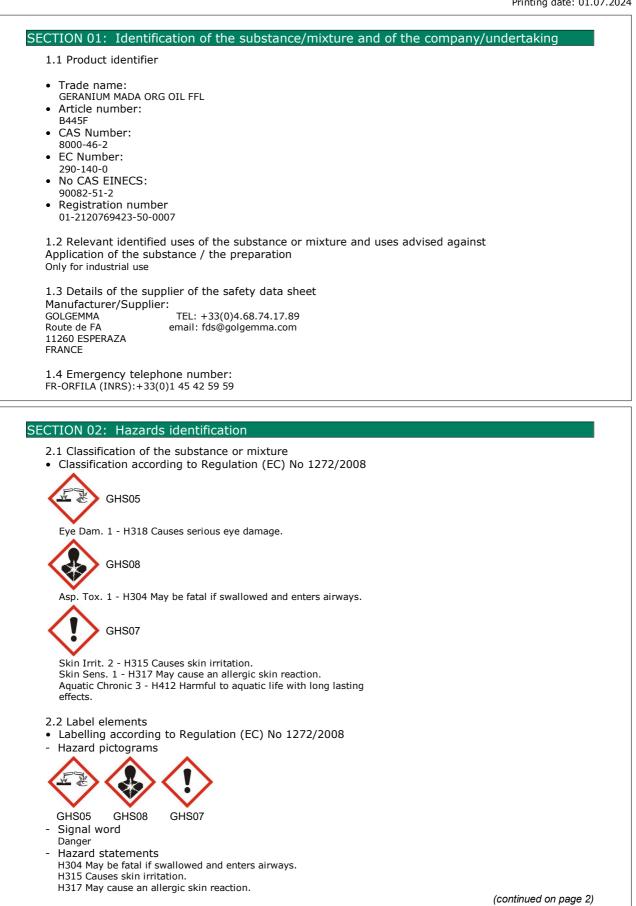


CHEMICAL SAFETY DATA SHEET according to 2020/878/EC (1907/2006/EC Article 31)





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RODUCT : 0	GERANIUM MADA ORG OIL FFL	
	serious eye damage.	(continued of page 1
H412 Harmful	to aquatic life with long lasting effects.	
 Precautionar P261 Avoid br 	•y statements eathing dust/fume/gas/mist/vapours/spray.	
P264 Wash the	proughly after handling.	
	nated work clothing should not be allowed out of the workplace SWALLOWED: Immediately call a POISON CENTER/ doctor.	2.
P405 Store loc	ked up. of contents/container in accordance with local/regional/ nation	al (international regulations
2.3 Other haza	irds BT and vPvB assessment	
- PBT:		
Not applicable - vPvB:		
Not applicable		
	on of endocrine-disrupting properties ogredients is listed.	
ECTION 03: C	omposition/information on ingredients	
3.1 Substances		
CAS No. 8000-46-2	Description	
8000-40-2	Pelargonium graveolens L'Hér. (syn: Pelargonium X asperum Ehrhart ex Willdenow)	
Identification	. ,	
• EC number: 290-140-0		
Dangerous of	components:	
CAS Number		%
106-22-9	CITRONELLOL EC number: 203-375-0	20,001-50,00
	Skin Irrit. 2 - H315, Eye Irrit. 2 -	
	H319, Skin Sens. 1B - H317	
106-24-1	GERANIOL	10,001-20,00
	EC number: 203-377-1	
	🧇 Eye Dam. 1 - H318; 🕐 Skin Irrit. 2	
	- H315, Skin Sens. 1 - H317	
105-85-1	Citronellyl formate EC number: 203-338-9	10,001-20,00
	 Skin Irrit. 2 - H315, Skin Sens. 1B - 	
	H317	
491-07-6	d,I-Isomenthone	5,001-10,00
	EC number: 207-727-4	
	🚸 Skin Irrit. 2 - H315, Skin Sens. 1B -	
	H317	
105-86-2	Geranyl formate	5,001-10,00
	EC number: 203-339-4	
	•	
	Acute 1 - H400 (M=1), Aquatic Chronic 2 - H411	
78-70-6	LINALOOL	5,001-10,00
	EC number: 201-134-4	·,···
	◊ Skin Irrit. 2 - H315, Eye Irrit. 2 -	
	V Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	



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PRODUCT :	GERANIUM MADA ORG OIL FFL	
	EC number: 201-746-1 � Asp. Tox. 1 - H304;	(continued of page 2)
5392-40-5	1B - H317 CITRAL EC number: 226-394-6 (1) Skin Irrit. 2 - H315, Eye Irrit. 2 -	1,001- 5,000
106-25-2	 Skin Int. 2 - H315, Eye Int. 2 - H319, Skin Sens. 1B - H317 Nerol EC number: 203-378-7 Skin Irrit. 2 - H315, Eye Irrit. 2 - 	1,001- 5,000
80-56-8	 Skin IIII. 2 - H313, Eye IIII. 2 - H319, Skin Sens. 1B - H317 ALPHA-PINENE EC number: 201-291-9 Asp. Tox. 1 - H304; Flam. Liq. 3 	0,101-1,000
105-87-3	- H226; (I) Acute Tox. 4 - H302, Skin Irrit. 2 - H315, Skin Sens. 1B - H317 GERANYL ACETATE EC number: 203-341-5 (I) Skin Irrit. 2 - H315, Skin Sens. 1B -	0,101-1,000
5989-27-5	H317; Aquatic Chronic 3 - H412 d-limonene EC number: 227-813-5 Same Asp. Tox. 1 - H304; Same Flam. Liq. 3	0,101-1,000
42077.04.0	- H226; () Skin Irrit. 2 - H315, Skin Sens. 1B - H317; () Aquatic Acute 1 - H400 (M=1); Aquatic Chronic 3 - H412	0.404.4.020
13877-91-3	 3,7-Dimethyl-1,3,6-octatriene EC number: 237-641-2 ♦ Asp. Tox. 1 - H304; ♦ Flam. Liq. 3 - H226; ♦ Skin Irrit. 2 - H315; ♦ Aquatic Acute 1 - H400 (M=1), Aquatic Chronic 2 - H411 	0,101-1,000

SECTION 04: First aid measures

- 4.1 Description of first aid measures
- General information:
- Seek immediate medical advice.
- After inhalation:
- Supply fresh air and to be sure call for a doctor.
- After skin contact:
 If skin irritation continues, consult a doctor
- If skin irritation continues, consult a doctor. Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. • After swallowing:
- Seek immediate medical advice.
- Information for doctor:

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.



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PRODUCT : GERANIUM MADA ORG OIL FFL	
	(continued of page 3
ECTION 05: Firefighting measures	
5.1 Extinguishing media	
 Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water. 	
Use fire extinguishing methods suitable to surrounding conditions.	
 For safety reasons unsuitable extinguishing agents: 	
Water with full jet	
5.2 Special hazards arising from the substance or mixture	
Formation of toxic gases is possible during heating or in case of fire.	
5.3 Advice for firefighters	
Protective equipment:	
Do not inhale explosion gases or combustion gases.	
 Additional information Cool endangered receptacles with water spray. 	
ECTION 06: Accidental release measures	
6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.	5
Ensure adequate ventilation	
Keep away from ignition sources.	
6.2 Environmental precautions:	
Do not allow product to reach sewage system or any water course.	
Inform respective authorities in case of seepage into water course or sewage system.	
6.3 Methods and material for containment and cleaning up:	
Dispose contaminated material as waste according to item 13.	
Ensure adequate ventilation.	
6.4 Reference to other sections	
See Section 7 for information on safe handling.	
See Section 8 for information on personal protection equipment. See Section 13 for disposal information.	
CCTION 07. Usedling and store a	
ECTION 07: Handling and storage	
7.1 Precautions for safe handling	
Keep receptacles tightly sealed. Keep away from heat and direct sunlight.	
Ensure good ventilation/exhaustion at the workplace.	
Prevent formation of aerosols.	
Handle with care. Avoid jolting, friction and impact.	

• Information about fire - and explosion protection: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

7.2 Conditions for safe storage, including any incompatibilities Storage:

- Requirements to be met by storerooms and receptacles: Store only in the original receptacle. Prevent any seepage into the ground. Use only receptacles specifically permitted for this substance/ product. Information about storage in one common storage facility: ٠
- Not required. Further information about storage conditions: • Keep container tightly sealed. Protect from heat and direct sunlight. Store receptacle in a well ventilated area.

7.3 Specific end use(s) No further relevant information available.



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PRODUCT :	GERANIUM MADA ORG OIL FFL	
	(continued of page	4)
SECTION 08:	Exposure controls/personal protection	
8.1 Control p	parameters is with limit values that require monitoring at the workplace:	
Not require		
	information:	
The lists va	lid during the making were used as basis.	
8.2 Exposure	e controls	
	protection measures, such as personal protective equipment	
	rotective and hygienic measures:	
	recautionary measures are to be adhered to when handling chemicals. from foodstuffs, beverages and feed.	
	y remove all soiled and contaminated clothing	
Wash hand	before breaks and at the end of work.	
	le gases / fumes / aerosols.	
	le dust / smoke / mist. ct with the skin.	
	ict with the eyes.	
	y protection:	
	e respiratory protective device in case of insufficient ventilation. prief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure	
	ed respiratory protective device.	use
 Protection 		
Protective g		
	naterial has to be impermeable and resistant to the product/ the substance/ the preparation. sing tests no recommendation to the glove material can be given for the product/ the preparation/	/ the
Selection of	the glove material on consideration of the penetration times, rates of diffusion and the degradation	
varies from	on of the suitable gloves does not only depend on the material, but also on further marks of quality manufacturer to manufacturer.	and
	n time of glove material	
observed.	preak through time has to be found out by the manufacturer of the protective gloves and has to	be
 Eye/face p 		
Safety glass Safety glass		
 Body prot 		
	protective clothing	
Boots		

9.1 Information on basic physical and chemi	ical properties	
General Information		
Physical state	Fluid	
Colour:	green to dark green	
Odour:	rose	
Odour threshold:	Not determined.	
Boiling point or initial boiling point and boiling range	Not determined.	
Flammability	Not determined.	
Lower and upper explosion limit		
Lower:	Not determined.	
Upper:	Not determined.	
Flash point:	64,0 °C NFT 60-103 CC	
Decomposition temperature:	Not determined.	
рН	Not determined.	
Viscosity:		
Kinematic viscosity	Not determined.	
Dynamic:	Not determined.	



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	(continued of page
Solubility	
water:	Not determined.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density:	Not determined.
Relative density	0,8830 0,905 D20/20
Vapour density	Not determined.
9.2 Other information	No further relevant information available.
Appearance:	
Form:	fluid
mportant information on protection of health	n and environment, and on safety.
Auto-ignition temperature:	Not determined.
Explosive properties:	Not determined.
Solvent content:	
Solids content:	0,00 %
Change in condition	
Evaporation rate	Not determined.
nformation with regard to physical hazard cl	asses
Explosives	not applicable
Flammable gases	not applicable
Aerosols	not applicable
Oxidising gases	not applicable
Gases under pressure	not applicable
Flammable liquids	not applicable
Flammable solids	not applicable
Self-reactive substances and mixtures	not applicable
Pyrophoric liquids	not applicable
Pyrophoric solids	not applicable
Self-heating substances and mixtures	not applicable
Substances and mixtures, which emit	not applicable
flammable gases in contact with water	
Oxidising liquids	not applicable
Oxidising solids	not applicable
Organic peroxides	not applicable
Corrosive to metals	not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: No further relevant information available.



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PRODUCT :	GERANIUM MADA ORG OIL FFL	
10.6 Hazaro Not determin	dous decomposition products: ed.	(continued of page 6)
SECTION 11:	Toxicological information	
	nation on hazard classes as defined in Regulation (EC) N	lo 1272/2008
 Acute tox ID/IC50 	<pre>kicity values relevant for classification:</pre>	
		ISO LD/LC
8000-46-2	Pelargonium graveolens L'Hér. (syn: Pelargonium)	K
Oral, LD50 Dermal, Ll	asperum Ehrhart ex Willdenow) 0: >=5000 mg/kg (rat) 050: 2500 mg/kg (Rabbit)	
106-22-9	CITRONELLOL	
): 3450 mg/kg (rat) D50: 2650 mg/kg (Rabbit)	
78-70-6	LINALOOL	
): 2790 mg/kg (rat) D50: 5610 mg/kg (Rabbit)	
87-44-5	BETA-CARYOPHYLLENE	
Oral, LD50 5392-40-5): > 5000 mg/kg (rat) (Hart and Wong 1971) CITRAL	
	0: 4960 mg/kg (rat)	
	GERANYL ACETATE 0: >4000 mg/kg (rat) (NTP 1987)	
5989-27-5 Oral 1050	(R)-p-mentha-1,8-diene 0: 4400 mg/kg (rat)	
	rritant effect:	
Irritant to	osion/irritation skin and mucous membranes. in irritation.	
Strong irri	eye damage/irritation tant with the danger of severe eye injury. rious eye damage.	
 Respirato Sensitizati 	ory or skin sensitisation on possible through skin contact.	
 Germ cer 78-70-6 	I mutagenicity LINALOOL	
	AMES: NEGATIVE (in vitro) (Letizia and al., 2007)	
	BETA-CARYOPHYLLENE AMES: NEGATIVE (in vitro) (Heck and al., 1989)	
105-87-3 OECD 471	GERANYL ACETATE AMES: NEGATIVE (in vitro) (NTP 1987)	
Carcinog		
	LINALOOL u: NEGATIVE (mouse) (in vivo, Letizia and al., 2007) u: NEGATIVE (in vitro) (DiSotto and al., 2011)	
105-87-3	GERANYL ACETATE	
	u: NEGATIVE (mouse) (in vivo, Shelby 1993) tive toxicity	
Not deterr	nined. gle exposure	
Not deterr	nined.	
 STOT-rep Not deterr 	peated exposure	
 Aspiratio May be fat 	n hazard al if swallowed and enters airways.	
	al if swallowed and enters airways. e to chronic toxicity:	
78-70-6	LINALOOL	
2008)	EL: 200 mg/kg (rat) (maternal toxicity, Politano and al.,	
87-44-5	BETA-CARYOPHYLLENE	



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		(continued of page
	ation on other hazards	
	isrupting properties	
None of 1	the ingredients is listed.	
	icological information	
ECTION 12: E	cological information	
12.1 Toxicity		
 Aquatic toxi 	city:	
8000-46-2	Pelargonium graveolens L'Hér. (syn: Pelargonium X	
	asperum Ehrhart ex Willdenow)	
	,995 mg/l (daphnia) (OECD 202 / EU Method C.2)	
	: 13 mg/l (algae) (OECD 201) ,173 mg/l (fish) (OECD 203 / EU Method C.1)	
78-70-6	LINALOOL	
	Invalue (g/l (fish) ((OECD 203) RIFM 1991)	
ErC50(0-72h)	: 156,7 mg/l (algae)	
ErC50(0-48h)	: 59 mg/l (daphnia) ((OECD 202)	
5989-27-5	(R)-p-mentha-1,8-diene	
LD50: 0,71 m	g/l (fish) (OECD 203)	
12 2 Persisten	ce and degradability	
	ant information available.	
	n environmental systems:	
Not determin	ed.	
12 2 Biopeour	vulativo notontial	
	nulative potential ant information available.	
12.4 Mobility i	n soil	
No further releva	ant information available.	
 PBT: 	f PBT and vPvB assessment	
Not applicabl		
 vPvB: 	-	
Not applicabl	е.	
	e disrupting properties	
The product doe	s not contain substances with endocrine disrupting properties.	
12.6 Other ad	verse effects	
	ant information available.	
 Ecotoxical e 	ffects:	
Not determin	ed.	
Remark:	L.	
Harmful to fis		
 General not 	cological information:	
	uatic organisms	
	is harmful to the environment.	
ECTION 12. F	Disposal considerations	

- Recommendation
- Must be specially treated adhering to official regulations. Uncleaned packaging:
- Recommendation:
 - Disposal must be made according to official regulations.

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(continued on page 9)



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	(continued of pa	aae 8
ECTION 14: Transpor		,
14.1 UN number or ID	number	
. ADR	Not classified	
. IMDG	Not classified	
. IATA	Not classified	
14.2 UN proper shippir	ig name	
ADR	Not classified	
. IMDG	Not classified	
. IATA	Not classified	
14.3 Transport hazard . ADR	class(es)	
Class	Not classified	
IMDG		
. Class	Not classified	
. IATA		
. Class	Not classified	
14.4 Packing group		
. ADR	Not classified	
. IMDG	Not classified	
. IATA	Not classified	
14.5 Environmental ha Not applicable.	zards:	
14.6 Special precaution Not applicable.	ns for user	
14.7 Maritime transpor Not applicable.	t in bulk according to IMO instruments	
ECTION 15: Regulato	ry information	

- and electronic equipment Annex II None of the ingredients is listed.
- REGULATION (EU) 2019/1148
- Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)) None of the ingredients is listed.
- Annex II REPORTABLE EXPLOSIVES PRECURSORS
- None of the ingredients is listed.
 Regulation (EC) No 273/2004 on drug precursors None of the ingredients is listed.
- Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors None of the ingredients is listed.
- National regulations:
- Technical instructions (air):
- Class Share in %
- Ι
- Waterhazard class: Generally not hazardous for water.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.



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	(continued of page 9)
ECTION 16	Other information
information to be consid areas thereo not be valid of this docur	tion in this safety data sheet is based on the state of our knowledge at the date indicated. The n this sheet must be regarded as a description of the safety requirements for the product, they are not ered a warranty or quality specification and have no contractual value on properties and application f. The information contained in this safety data sheet relate to the specific material designated and may with respect to the product associated with another product or process, unless it is specified in the text hent.
	he national regulations in force.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H304 H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
purpose o	training in occupational risk prevention is recommended for personnel who will handle this product, in the facilitating the understanding and interpretation of this form of safety data in the same way as the fthe product.
 purpose of labeling of Abbrevia IFRA:Inte ADR: Acc the Interr RID: Règl Concernir IMDG: Ini DOT: US IATA: Inte ICAO: Int GHS: Gloi EINECS: I ELINCS: I CAS: Che LC50: Let LD50: Let PBT: Pers 	of facilitating the understanding and interpretation of this form of safety data in the same way as t f the product. tions and acronyms: rnational Fragrance Association IOFI:International Organization of the Flavor Industry ord européen sur le transport des marchandises dangereuses par Route (European Agreement concernin ational Carriage of Dangerous Goods by Road) ement international concernant le transport des marchandises dangereuses par chemin de fer (Regulation g the International Transport of Dangerous Goods by Rail) ernational Maritime Code for Dangerous Goods Department of Transport Association ernational Air Transport Association ernational Civil Aviation Organisation bally Harmonised System of Classification and Labelling of Chemicals European Inventory of Existing Commercial Chemical Substances uropean List of Notified Chemical Substances mical Abstracts Service (division of the American Chemical Society) hal concentration, 50 percent hal dose, 50 percent stent, Bioaccumulative and Toxic
 purpose of labeling of Abbrevia IFRA:Inte ADR: Acc the Interr RID: Règl Concernir IMDG: Ini DOT: US IATA: Int ICAO: Int GHS: Gloi EINECS: I ELINCS: I CAS: Che LC50: Let PBT: Pers vPvB: ver 	of facilitating the understanding and interpretation of this form of safety data in the same way as the fithe product. tions and acronyms: mational Fragrance Association IOFI:International Organization of the Flavor Industry ord européen sur le transport des marchandises dangereuses par Route (European Agreement concernin ational Carriage of Dangerous Goods by Road) ement international concernant le transport des marchandises dangereuses par chemin de fer (Regulation g the International Transport of Dangerous Goods by Rail) ernational Maritime Code for Dangerous Goods Department of Transportation ernational Air Transport Association ernational Air Transport Association ernational Civil Aviation Organisation pally Harmonised System of Classification and Labelling of Chemicals European Inventory of Existing Commercial Chemical Substances European List of Notified Chemical Substances mical Abstracts Service (division of the American Chemical Society) hal dose, 50 percent hal dose, 50 percent stent, Bioaccumulative and Toxic y Persistent and very Bioaccumulative
 purpose of labeling of Abbrevia IFRA:Inte ADR: Acc the Interr RID: Règl Concernir IMDG: Ini DOT: US IATA: Int ICAO: Int GHS: Gloi EINECS: I ELINCS: F CAS: Che LC50: Let PBT: Pers vPvB: ver 	of facilitating the understanding and interpretation of this form of safety data in the same way as t f the product. tions and acronyms: rnational Fragrance Association IOFI:International Organization of the Flavor Industry ord européen sur le transport des marchandises dangereuses par Route (European Agreement concernin ational Carriage of Dangerous Goods by Road) ement international concernant le transport des marchandises dangereuses par chemin de fer (Regulation g the International Transport of Dangerous Goods by Rail) ernational Maritime Code for Dangerous Goods Department of Transport Association ernational Air Transport Association ernational Civil Aviation Organisation bally Harmonised System of Classification and Labelling of Chemicals European Inventory of Existing Commercial Chemical Substances uropean List of Notified Chemical Substances mical Abstracts Service (division of the American Chemical Society) hal concentration, 50 percent hal dose, 50 percent stent, Bioaccumulative and Toxic