according to Regulation (EC) No. 1907/2006



TIMBERSILK TOCO

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

1.1	Product identifier		
	Trade name	:	TIMBERSILK TOCO
	Product code	:	00202192
	Registration number Sales Number Substance name EC-No.		01-2119489989-04-0000, 01-2119489989-04-0009 00202192 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2- naphthyl)ethan-1-one 915-730-3,
		•	913-730-3,
	CAS-No.	:	68155-66-8
1.2	Relevant identified uses of th	e s	ubstance or mixture and uses advised against
	Use of the Sub- stance/Mixture	:	Ingredient used in Flavour and/or Fragrance preparations
1.3	Details of the supplier of the	saf	ety data sheet
	Company	:	IFF Benicarló, S.L. Avda. Felipe Klein 2 12580 BENICARLÓ
	Telephone	:	+34964470212
	Telefax	:	+34964473411
	E-mail address of person	:	sds@iff.com

responsible for the SDS

1.4 Emergency telephone

+34 964 470 212

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)						
Skin irritation, Category 2	H315: Causes skin irritation.					
Skin sensitization, Sub-category 1B	H317: May cause an allergic skin reaction.					
Long-term (chronic) aquatic hazard, Cat- egory 2	H411: Toxic to aquatic life with long lasting effects.					

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

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Hazard pictograms		:		
Signa	al Word	:	Warning	
Hazard Statements		:	H317 May cause	kin irritation. e an allergic skin reaction. quatic life with long lasting effects.
Precautionary Statements		:	P273 Avoid rele	athing dust/ fume/ gas/ mist/ vapours/ spray. ase to the environment. ective gloves.
			advice/ attention.	skin irritation or rash occurs: Get medical ake off contaminated clothing and wash it illage.

Hazardous ingredients which must be listed on the label:

68155-66-8, Tetramethyl Acetyloctahydronaphthalenes 54464-57-2, 68155-67-9, 54464-59-4

2.3 Other hazards

None reasonably foreseeable.

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	:	1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2- naphthyl)ethan-1-one
EC-No.	•	268-978-3
Molecular formula	:	C16H26O

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Molecular weight REACH No.		: 234,2 g/mol : 01-2119489989	: 234,2 g/mol : 01-2119489989-04-0000, 01-2119489989-04-0009				
Com	ponents						
Chem	nical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE			
1-(1,2,3,4,5,6,7,8- Octahydro-2,3,8,8- tetramethyl-2- naphthyl)ethan-1-one		68155-66-8 915-730-3	>= 90 - <= 100				

SECTION 4: First aid measures

4.1 Description of first-aid measures

If inhaled: Remove from exposure site to fresh air and keep at rest. If victim is unconscious, remove foreign bodies from the mouth. If victim has stopped breathing, give artificial respiration. Ob- tain medical advice.In case of skin contact: Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.In case of eye contact: Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.If swallowed: Rinse mouth with water and obtain medical advice.	General advice	: Take Hazard and Precautionary phrases (section 2) into ac- count.
 (and soap). Contact physician if symptoms persist. In case of eye contact Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist. 	If inhaled	victim is unconscious, remove foreign bodies from the mouth. If victim has stopped breathing, give artificial respiration. Ob-
physician if symptoms persist.	In case of skin contact	• •
If swallowed : Rinse mouth with water and obtain medical advice.	In case of eye contact	•
	If swallowed	: Rinse mouth with water and obtain medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Risks	:	Causes skin irritation.
		May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Carbondioxide, dry chemical, foam.
Unsuitable extinguishing media	:	Do not use a direct waterjet on burning material.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire	: Water may be ineffective.
fighting	



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5.3 Advi	ce for firefighters					
Special protective equipment for fire-fighters		:	Wear self-contained breathing apparatus for firefighting if nec- essary.			
Further information		:	Standard procedure for chemical fires.			
SECTIO	N 6: Accidental releas	se r	neasures			
6.1 Pers	onal precautions, protec	ctiv	e equipment and o	emergency procedures		
Pers	sonal precautions	:	 Avoid inhalation and contact with skin and eyes. A self- contained breathing apparatus is recommended in case of a major spill. Prevent spreading over a wide area (e.g., by containment or oil barriers). 			
6.2 Envi	ronmental precautions					
Envi	ironmental precautions	:	Keep away from	drains, surface- and groundwater and soil.		
6.3 Meth	ods and material for cor	ntai	nment and cleani	ng up		
Metl	nods for cleaning up	:	adequate ventilat Gross spillages s	promptly. Remove ignition sources. Provide ion. Avoid excessive inhalation of vapours. hould be contained by use of sand or inert osed of according to the local regulations.		
6.4 Refe	6.4 Reference to other sections					

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use. If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees. Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air. Advice on protection against : Keep away from ignition sources and naked flame. fire and explosion



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7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage	:	Store in a cool, dry, ventilated area away from heat sources.
areas and containers		Keep containers upright and tightly closed when not in use.

7.3 Specific end use(s)

Specific use(s)

: No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Routes of expo-	Potential health ef-	Value
		sure	fects	
1-(1,2,3,4,5,6,7,8-	Workers	Skin contact	Long-term local ef-	0,1011
Octahydro-2,3,8,8-			fects	mg/cm2
tetramethyl-2-				-
naphthyl)ethan-1-one				
Remarks:	Exposure time: 8	3 h		
	Workers	Skin contact	Long-term systemic	1,73 mg/kg
			effects	bw/day
Remarks:	Exposure time: 8	3 h		
	Workers	Inhalation	Long-term systemic	1,76 mg/m3
			effects	
Remarks:	Exposure time: 8 h			

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
1-(1,2,3,4,5,6,7,8-Octahydro-	Fresh water	0,0028 mg/l
2,3,8,8-tetramethyl-2-		
naphthyl)ethan-1-one		
	Sea water	0,00028 mg/l
	Fresh water sediment	3,73 mg/kg dry
		weight (d.w.)
	Sea sediment	0,75 mg/kg dry
		weight (d.w.)
	Soil	0,705 mg/kg dry
		weight (d.w.)

8.2 Exposure controls

Engineering measures

Where appropriate, use closed systems to transfer and process this material. If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.

Personal protective equipment

Eye protection

: Use tight-fitting goggles, face shield or safety glasses with

according to Regulation (EC) No. 1907/2006





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				contact might occur. conform to EN 166
	l protection emarks	le F f t t t t t c c c c c c c c c c c c c c	ected protective g Regulation (EU) 2 rom it. Be aware a esistant protective reak through time abserve the instru- nrough time which also take into con- ler which the pro- abrasion, and the love does not on	t. Use chemically resistant gloves. The se- gloves have to satisfy the specifications of 016/425 and the standard EN 374 derived that in daily use the durability of a chemical e glove can be notably shorter than the e measured according to EN 374, due to side influences (e.g. temperature). Please ctions regarding permeability and break- h are provided by the supplier of the gloves. sideration the specific local conditions un- duct is used, such as the danger of cuts, contact time. The choice of an appropriate ly depend on its material but also on other and is different from one producer to the oth-
Skin	and body protection	t		ection in relation to its type, to the concen- it of dangerous substances, and to the spe-
Resp	iratory protection	c s la e N ii	pen sources of p ive inhalation, ind veighed or measu ation of the work exposures. lo respiratory pro	ventilation around open tanks and other otential exposures in order to avoid exces- cluding places where this material is openly ared. In addition, use general dilution venti- area to eliminate or reduce possible worker tection is required during normal operations ere engineering controls such as adequate e sufficient.
		c p	ient, an approved	trols and safe work practices are not suffi- d, properly fitted respirator with organic va- anisters and particulate filters should be
		ti b c c c e s	ces and/or proce o)during short terr ng controls are no o)if normal operati ir is increased du during emergen o)if engineering co	cies; or ontrols and operational practices are not e airborne concentrations below an estab-
Prote	ective measures	a s	nd regularly sche	med appropriate, implement pre-placement eduled ascertainment of symptoms and of lung function for workers who are regu- nis material.



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		sampling expe that could be p tial exposures	leemed appropriate, use an experienced air rt to identify and measure volatile chemicals resent in the workplace air to determine poten- and to ensure the continuing effectiveness of ntrols and operational practices to minimize

exposure.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

:	liquid
:	colorless to pale yellow
:	conforms to standard
:	not determined not determined not determined not determined not determined > 100,00 °C
:	Method: closed cup
	not determined not determined not determined not determined not determined not determined not determined < 0,01 hPa
:	0,9623 - 0,9683
:	not determined

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

according to Regulation (EC) No. 1907/2006



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10.2 Chen	nical stability		
	•		
Stable	e under normal condit	ions.	
10.3 Poss	ibility of hazardous	reactions	
Hazaı	dous reactions	: Presents no s with water.	ignificant reactivity hazard, by itself or in contact
10.4 Cond	litions to avoid		
Condi	tions to avoid	: Direct sources	s of heat.

10.5 Incompatible materials

10.6 Hazardous decomposition products

Carbon monoxide and unidentified organic compounds may be formed during combustion.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified based on available information.

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Acute oral toxicity	:	LD50 (Rat, male and female): > 5.000 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50 (Rat, male and female): > 5.000 mg/kg Method: OECD Test Guideline 402

Skin corrosion/irritation

Causes skin irritation.

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Species	:	human
Method	:	OECD 439
Result	:	Skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Method	:	QSAR
Result	:	No eye irritation



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Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Test Type	:	LLNA
Species	:	Mouse
Method	:	OECD 429
Result	:	Causes sensitization.

Germ cell mutagenicity

Not classified based on available information.

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Genotoxicity in vitro :	Test Type: Ames test Metabolic activation: with and without metabolic activation Method: Mutagenicity (Escherichia coli - reverse mutation assay) Result: negative
	Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Method: OECD 473 Result: negative
Genotoxicity in vivo :	Test Type: in vivo assay Species: Mouse (male) Method: Mutagenicity (micronucleus test) Result: negative Test Type: in vivo assay Species: Rat Method: Mutagenicity (micronucleus test)
	Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.



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STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Species :	Rat, male and female
NOAEL :	150 mg/kg
Application Route :	Oral
Exposure time :	28-day
Number of exposures :	1x /day
Method :	OECD Test Guideline 407
Target Organs :	Digestive organs, Liver
Remarks :	Repeated dose (28 days) toxicity (oral)

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

SECTION 12: Ecological information

12.1 Toxicity

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Toxicity to fish		LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,3 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1,38 mg/l Exposure time: 48 h Test Type: semi-static test Method: OECD Test Guideline 202 Remarks: IFF
Toxicity to algae/aquatic plants	:	EC50 (Desmodesmus subspicatus (green algae)): 2,6 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201
Toxicity to microorganisms	:	NOEC : > 100 mg/l Exposure time: 42 h Test Type: static test Method: OECD 301 F
Toxicity to fish (Chronic tox- icity)	:	NOEC: 0,16 mg/l Exposure time: 30 d

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Species: Danio rerio (zebra fish) Test Type: semi-static test Method: OECD 210 Toxicity to daphnia and other :: NOEC: 0,028 mg/ aquatic invertebrates (Chron : Species: Daphnia magna (Water fiea) it toxicity : Species: Daphnia magna (Water fiea) Method: OECD 211 12.1 Persistence and degradability 14.1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl/bethan-1-one: Biodegradability :: Result: Readily biodegradable. Biodegradation: 96,3 % Exposure time: 21 d 14.1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl/bethan-1-one: 13.2 Bioaccumulative potential 14.1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl/bethan-1-one: Bioaccumulation :: Species: Leponnis macrochirus (Bluegill sunfish) Exposure time: 21 d Biocaccumulation :: Species: Leponnis macrochirus (Bluegill sunfish) Exposure time: 21 d Biocaccumulation :: Species: Leponnis macrochirus (Bluegill sunfish) 14.1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl/bethan-1-one: Biocaccumulation :: Species: Leponnis macrochirus (Bluegill sunfish) 14.1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl/bethan-1-one: Biocaccumulation :: Species: Leponnis macrochirus (Bluegill sunfish) 14.1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl/bethan-1-one: Biocaccumulation :: Species: Leponnis macrochirus (Bluegill sunfish) 14.1,2,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl/bethan-1-one: Distribution among environ :: Adsorption/Soil mental compartments :: Ko:: 12598, log Ko:: 4,1 15.1 Results of PBT and vPvB assessment Producti Assessment :: This substance/mixture contains no components considered to be either presistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	Version 8.5	Revision Date: 13.07.2022		00000788317	Date of first issue: 18.09.2020
aquatic invertebrates (Chron- ic toxicity) Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD 211 12.2 Persistence and degradability <u>Components:</u> 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Biodegradability Result: Readily biodegradable. Biodegradability Biodegradable, according to appropriate OECD 301 F GLP: yes Remarks: Readily biodegradable, according to appropriate OECD test. 12.3 Bioaccumulative potential <u>Components:</u> 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Bioaccumulation Species: Lepomis macrochirus (Bluegili sunfish) Exposure time: 21 d Bioconcentration factor (BCF): 391 Method: OECD 305 GLP: yes 12.4 Mobility in soil <u>Product:</u> Mobility in soil <u>Products:</u> 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- Distribution among environ- mental compartments Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment <u>Product:</u> Assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative (vPvB) at levels of 0.1% or higher.				Test Type: semi-	static test
Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Biodegradability Exposure time: 28 d Method: OECD 301 F GLP: yes Remarks: Readily biodegradable, according to appropriate OECD test. 12.3 Bioaccumulative potential Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Bioaccumulative potential Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d Bioconcentration factor (BCF): 391 Method: OECD 305 GLP: yes 12.4 Mobility in soil Product: Mobility : Remarks: No data available Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- : Adsorption/Soil mental compartments Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment Koc: 12598, log Koc: 4,1	aqu	atic invertebrates (Chron-		Exposure time: 2 Species: Daphnia	1 d a magna (Water flea)
I-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Biodegradability : Result: Readily biodegradable. Biodegradation: 96,3 % Exposure time: 28 d Method: OECD 301 F GLP: yes Remarks: Readily biodegradable, according to appropriate OECD test. 12.3 Bioaccumulative potential Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d Bioaccumulation Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d Bioconcentration factor (BCF): 391 Method: OECD 305 GLP: yes 12.4 Mobility in soil E Product: Mobility : Remarks: No data available Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- mental compartments 1.4 Mobility in soil E Product: Mobility : Adsorption/Soil Method: 0ECD 305 GLP: yes 12.5 Results of PBT and vPvB assessment Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative and toxic (PBT), or	12.2 Per	sistence and degradabil	lity		
Biodegradability : Result: Readily biodegradable. Biodegradation: 96,3 % Exposure time: 28 d Method: OECD 301 F GLP: yes Remarks: Readily biodegradable, according to appropriate OECD test. 12.3 Bioaccumulative potential Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Bioaccumulation : Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d Bioconcentration factor (BCF): 391 Method: OECD 305 GLP: yes 12.4 Mobility in soil Product: Mobility : Product: Mobility : Remarks: No data available Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- mental compartments : 12.5 Results of PBT and vPvB assessment Koc: 12598, log Koc: 4,1 Product: Mobility : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative and toxic (PBT), or	Con	nponents:			
Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d Bioconcentration factor (BCF): 391 Method: OECD 305 GLP: yes 12.4 Mobility in soil Product: Mobility : Mobility in soil Product: Mobility : Mobility : Remarks: No data available Components: : 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- mental compartments : Adsorption/Soil Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment Product: Koc: 12598, log Koc: 4,1 Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	•		-2,3 :	Result: Readily b Biodegradation: Exposure time: 2 Method: OECD 3 GLP: yes Remarks: Readily	iodegradable. 96,3 % 8 d 01 F
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d Bioconcentration factor (BCF): 391 Method: OECD 305 GLP: yes 12.4 Mobility in soil Product: Mobility : Remarks: No data available Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- : Adsorption/Soil Mental compartments Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	12.3 Bio	accumulative potential			
Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish) Exposure time: 21 d Bioconcentration factor (BCF): 391 Method: OECD 305 GLP: yes 12.4 Mobility in soil Product: Mobility : Mobility : Remarks: No data available Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- mental compartments : Adsorption/Soil mental compartments : Adsorption/Soil Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment Product: Assessment : Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	Con	nponents:			
Product: Mobility : Remarks: No data available Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- mental compartments : Adsorption/Soil Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	-	· · · · · · · · · ·	-2,3 :	Species: Lepomis Exposure time: 2 Bioconcentration Method: OECD 3	s macrochirus (Bluegill sunfish) 1 d factor (BCF): 391
Mobility : Remarks: No data available Components: 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environ- mental compartments : Adsorption/Soil Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	12.4 Mol	bility in soil			
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one: Distribution among environmental compartments Adsorption/Soil Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.			:	Remarks: No dat	a available
Distribution among environmental compartments : Adsorption/Soil Koc: 4,1 12.5 Results of PBT and vPvB assessment <u>Product:</u> Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	Con	nponents:			
mental compartments Koc: 12598, log Koc: 4,1 12.5 Results of PBT and vPvB assessment Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	1-(1	,2,3,4,5,6,7,8-Octahydro	-2,3	,8,8-tetramethyl-2	P-naphthyl)ethan-1-one:
Product: Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.			:		Koc: 4,1
Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	12.5 Res	12.5 Results of PBT and vPvB assessment			
to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	Pro	duct:			
11 / 16	Ass	essment	:	to be either persis very persistent ar	stent, bioaccumulative and toxic (PBT), or
				11 / 16	

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Com	<u>nponents:</u>				
1-(1,	2,3,4,5,6,7,8-Octahydro	5-2 ,3	8,8,8-tetramethyl-2	2-naphthyl)ethan-1-one:	
•	essment	:	This substance is not considered to be persistent, bioaccumu- lating and toxic (PBT) This substance is not considered to be very persistent and very bioaccumulating (vPvB).		
12.6 End	ocrine disrupting prop	ertie	es		
Proc	duct:				
Asse	essment	:	The substance/mixture does not contain components consid- ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.		
12.7 Othe	er adverse effects				
Proc	duct:				
Addi mati	itional ecological infor- on	:	There is no data	available for this product.	
SECTIO	N 13: Disposal consi	ider	ations		
13.1 Was	ste treatment methods				
Prod	luct	:		ding to local regulations. Avoid disposing into s and into the environment.	
Cont	taminated packaging	:	Empty containers dling site for recy	s should be taken to an approved waste han- cling or disposal.	
SECTIO	N 14: Transport info	rma	tion		
14.1 UN I	number or ID number				
ADR	R	:	UN 3082		

IMDG : UN 3082 ΙΑΤΑ : UN 3082 14.2 UN proper shipping name ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Octahydro Tetramethyl Naphthalenyl Ethanone) IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, : N.O.S. (Octahydro Tetramethyl Naphthalenyl Ethanone) ΙΑΤΑ ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, : N.O.S.

according to Regulation (EC) No. 1907/2006



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			(Octahydro Tetra	amethyl Naphthalenyl Ethanone)
14.3 Trar	nsport hazard class(es)			
ADR	ł	:	9	
IMD	G	:	9	
IATA	A	:	9	
14.4 Pac	king group			
Clas Haza Labe	king group sification Code ard Identification Number		III M6 90 9 (-)	
Labe	king group	:	III 9 F-A, S-F	
Pack aircr Pack	king instruction (LQ)	:	964 Y964 III Miscellaneous Da	angerous Goods
IAT / Pack ger a Pack	A_P (Passenger) king instruction (passen- aircraft) king instruction (LQ) king group	:	964 Y964 III Miscellaneous Da	-
14.5 Env	ironmental hazards			5
IMD	ronmentally hazardous	:	yes	Fetramethyl Naphthalenyl Ethanone)
IATA	A (Passenger) ronmentally hazardous	:	yes	
	A (Cargo) ronmentally hazardous	:	yes	

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.



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SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that de- plete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL



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- Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information

2 In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110]. In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace". Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports. The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration >= 1.0% due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

According to Regulation (EC) No. 1907/2006 the information in this safety data sheet is based on the properties of the material known to IFF 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 International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

according to Regulation (EC) No. 1907/2006



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