

**SAFETY DATA SHEET****502041 TANGERIS GIVCO 212**

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**1. IDENTIFICATION**

<b>Product Description:</b>	<b>TANGERIS GIVCO 212</b>
<b>CAS #</b>	MIXTURE
<b>Other means of identification</b>	
<b>Vigon Item #</b>	502041
<b>Recommended use</b>	Concentrated aromatic ingredient which may be used fragrance compounds according to legal and IFRA guidelines.
<b>Recommended restrictions</b>	For Manufacturing Use Only

Company

Vigon International, LLC  
127 Airport Road  
E. Stroudsburg, PA 18301  
For information call: 570-476-6300  
Web Site: www.vigon.com

24 Hour Emergency Response Information

INFOTRAC (ACCT# 78928);  
1-800-535-5053 WITHIN THE U.S.A.  
1-352-323-3500 OUTSIDE THE U.S.A.

**Manufacturer/Importer/Supplier/Distributor information****Manufacturer**

<b>Company name</b>	Vigon International, LLC	
<b>Address</b>	127 Airport Road E. Stroudsburg, PA 18301 United States	
<b>Telephone</b>	For information call:	570-476-6300
<b>Website</b>	www.vigon.com	
<b>E-mail</b>	regulatory@vigon.com	
<b>Emergency phone number</b>	INFOTRAC	(ACCT# 78928);
	1-800-535-5053	WITHIN THE U.S.A.
	1-352-323-3500	OUTSIDE THE U.S.A.

**2. HAZARD(S) IDENTIFICATION**

<b>Physical hazards</b>	Flammable liquids	Category 3
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
	Aspiration hazard	Category 1
<b>Environmental hazards</b>	Not classified.	

**Label elements****Signal word**

Danger

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<b>Hazard statement</b>	Flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Keep cool. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Avoid breathing mist/vapors. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
<b>Response</b>	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
<b>Storage</b>	Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	93.96% of the mixture consists of component(s) of unknown acute inhalation toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
CARVENE	DIPENTENE (+)-P-MENTHA-1,8-DIENE (R)-(+)-Limonene (R)-4-Isopropenyl-1-methyl-1-cyclohexene 1-methyl-4-prop-1-en-2-ylcyclohexene	5989-27-5	10 - < 20
HEXYL CINNAMIC ALDEHYDE	2-(phenylmethylidene)octanal 2-benzylidene octanal alpha-hexyl cinnamaldehyde hexyl cinnamal	101-86-0	10 - < 20
ISOPROPYLPHENYLBUTANAL	3-(3-propan-2-ylphenyl)butanal BENZENEPROPANAL,BETA-METHYL-3-(1-METHYLETHYL) BETA-METHYL-3-(1-METHYLETHYL)-BENZENEPROPANAL	125109-85-5	5 - < 10
ALLYL (3-METHYLBUTOXY)ACETATE		67634-00-8	3 - < 5
LINALOOL	2,6-DIMETHYL-2,7-OCTADIENE-6-OL 1,6-Octadien-3-ol, 3,7-dimethyl- 3,7-Dimethylocta-1,6-dien-3-ol LINALYL ALCOHOL	78-70-6	3 - < 5

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Chemical name	Common name and synonyms	CAS number	%
2,4-DIMETHYLCYCLOHEX-3-ENE-1-CARBALDEHYDE	4-formyl-1,3-dimethylcyclohex-1-ene 2,4-DIMETHYL-3-CYCLOHEXEN-1-CARBOXALDEHYDE 3-Cyclohexene-1-carboxaldehyde, 2,4-dimethyl-DIMETHYLCYCLOHEX-3-ENE-1-CARBALDEHYDE (MIXED ISOMERS)	68039-49-6	1 - < 3
2,6-DIMETHYL-7-OCTEN-2-OL	DIMYRCETOL 2,6-DIMETHYL-7-OCTEN-2-OL 7-Octen-2-ol, 2,6-dimethyl-2,6-Dimethyloct-7-en-2-ol lymolene	18479-58-8	1 - < 3
2-CYCLOHEXYLIDENE-2-PHENYLACETONITRILE	benzeneacetonitrile, a-cyclohexylidene-cyclohexylidenephénylacetonitrile a-cyclohexylidenebenzeneacetonitrile	10461-98-0	1 - < 3
2-METHYL UNDECANAL	methyl N-nonyl acetaldehyde 2- methyl-1-undecanal 2- methylhendecanal	110-41-8	1 - < 3
CITRONELLAL	3,7-dimethyloct-6-enal 2,3- dihydrocitral 6-Octenal, 3,7-dimethyl-RHODINAL	106-23-0	1 - < 3
DECANAL	CAPRINIC ALDEHYDE DECYL ALDEHYDE DECYLIC ALDEHYDE 1-DECANAL C-10 ALDEHYDE CAPRIC ALDEHYDE	112-31-2	1 - < 3
HEXYL SALICYLATE	hexyl o-hydroxybenzoate hexyl 2-hydroxy-1-benzene carboxylate hexyl 2-hydroxybenzoate	6259-76-3	1 - < 3
IONONE BETA	beta-cyclocitylidene acetone (E)-4-(2,6,6-trimethyl-1-cyclohexenyl)but-3-en-2-one 4-(2,6,6-Trimethylcyclohex-1-ene-1-yl)-but-3-ene-2-one 3-Buten-2-one, 4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-BETA-IONONE	14901-07-6	1 - < 3
2,4,6-trimethylcyclohex-3-ene-1-carbaldehyde	isocyclovert	1335-66-6	< 1
CITRONELLOL	3,7-DIMETHYL-6-OCTEN-1-OL 6-Octen-1-ol, 3,7-dimethyl-2,6- dimethyl-2-octen-8-ol	106-22-9	< 1
DODECANENITRILE		2437-25-4	< 1

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Chemical name	Common name and synonyms	CAS number	%
TRIDECENE-2-NITRILE	2-Tridecenenitrile Tridec-2-enenitrile	22629-49-8	< 0.1
Other components below reportable levels			30 - < 40

#### 4. FIRST-AID MEASURES

<b>Inhalation</b>	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.
<b>Eye contact</b>	Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.
<b>Ingestion</b>	Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
<b>Indication of immediate medical attention and special treatment needed</b>	Not available.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

#### 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Water spray, fog, CO <sub>2</sub> , dry chemical, or alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Specific hazards arising from the chemical</b>	Fire may produce irritating, corrosive and/or toxic gases.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.
<b>Specific methods</b>	Use water spray to cool unopened containers.
<b>General fire hazards</b>	Static charges generated by emptying package in or near flammable vapor may cause flash fire.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.
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#### Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.

Large Spills: Dike the spilled material, where this is possible. Collect and dispose of spillage as indicated in section 13 of the SDS.

Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains.

Small Spills: Clean surface thoroughly to remove residual contamination. Wipe up with absorbent material (e.g. cloth, fleece).

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Stop the flow of material, if this is without risk. Cover with plastic sheet to prevent spreading.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid release to the environment. Retain and dispose of contaminated wash water. Contact local authorities in case of spillage to drain/aquatic environment.

## 7. HANDLING AND STORAGE

#### Precautions for safe handling

Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.

#### Conditions for safe storage, including any incompatibilities

Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Occupational exposure limits

This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.

#### Biological limit values

No biological exposure limits noted for the ingredient(s).

#### Appropriate engineering controls

Use explosion-proof ventilation equipment to stay below exposure limits.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear safety glasses with side shields (or goggles). Face shield is recommended.

##### Skin protection

##### Hand protection

Chemical resistant gloves.

##### Other

Use of an impervious apron is recommended.

##### Respiratory protection

Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.

##### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

#### General hygiene considerations

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

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#### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Refer to Spec Sheet
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Refer to Spec Sheet
<b>Odor</b>	Characteristic.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	138.0 °F (58.9 °C) Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
<b>Vapor pressure</b>	0.24 hPa at 20 °C Calculated (96.4 %)
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
Solubility (water)	Insoluble
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	940.97 kg/m <sup>3</sup> at 20 °C
<b>Explosive properties</b>	Not explosive.
<b>Flammability class</b>	Combustible II estimated
<b>Molecular formula</b>	Not applicable
<b>Oxidizing properties</b>	Not oxidizing.
<b>Specific gravity</b>	0.94 at 25 °C

#### 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.

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<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products if stored and handled as indicated.

### 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

<b>Inhalation</b>	No adverse effects due to inhalation are expected.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye irritation. Causes mild eye irritation.
<b>Ingestion</b>	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics**      Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

#### Information on toxicological effects

**Acute toxicity**      May be fatal if swallowed and enters airways.

Product	Species	Test Results
TANGERIS GIVCO 212		
<b>Acute</b>		
<i>Oral</i>		
LD50		> 2000 mg/kg Acute toxicity estimate

Components	Species	Test Results
2,4,6-trimethylcyclohex-3-ene-1-carbaldehyde (CAS 1335-66-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 4600 mg/kg
<i>Oral</i>		
LD50	Rat	4150 mg/kg
2,4-DIMETHYLCYCLOHEX-3-ENE-1-CARBALDEHYDE (CAS 68039-49-6)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	3900 mg/kg
2,6-DIMETHYL-7-OCTEN-2-OL (CAS 18479-58-8)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	3600 mg/kg

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Components	Species	Test Results
<b>Presumed Non-Toxic</b>		
<i>Dermal</i>		
LD50	Rabbit	>= 5000 mg/kg
2-CYCLOHEXYLIDENE-2- PHENYLACETONITRILE (CAS 10461-98-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg Method: OECD Test Guideline 402
<i>Inhalation</i>		
LC50	Rabbit	> 5 mg/l Method: OECD Test Guideline 403
<i>Oral</i>		
LD50	Rat	619 mg/kg Method: OECD Test Guideline 401
2-METHYL UNDECANAL (CAS 110-41-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
CARVENE (CAS 5989-27-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	4400 mg/kg
CITRONELLAL (CAS 106-23-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2500 mg/kg
<i>Oral</i>		
LD50	Rat	2420 mg/kg
CITRONELLOL (CAS 106-22-9)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	2650 mg/kg
<i>Oral</i>		
LD50	Rat	3450 mg/kg



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Components	Species	Test Results
DECANAL (CAS 112-31-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	5040 mg/kg
<i>Oral</i>		
LD50	Rat	3730 mg/kg
HEXYL CINNAMIC ALDEHYDE (CAS 101-86-0)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	> 3000 mg/kg
HEXYL SALICYLATE (CAS 6259-76-3)		
<b>Acute</b>		
<i>Dermal</i>		
	Rabbit	> 5000 mg/kg
<i>Oral</i>		
	Rat	> 5000 mg/kg
IONONE BETA (CAS 14901-07-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
<i>Oral</i>		
LD50	Rat	> 4000 mg/kg
ISOPROPYLPHENYLBUTANAL (CAS 125109-85-5)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg Method: OECD Test Guideline 402
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg Method: OECD Test Guideline 401
LINALOOL (CAS 78-70-6)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	2790 mg/kg

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Components	Species	Test Results
TRIDECENE-2-NITRILE (CAS 22629-49-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation. May cause skin irritation and/or dermatitis.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation. May cause irreversible eye damage.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>		
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
CARVENE (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.	
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>		
Not listed.		
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>		
Not listed.		
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	May be fatal if swallowed and enters airways.	

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
2,4-DIMETHYLCYCLOHEX-3-ENE-1-CARBALDEHYDE (CAS 68039-49-6)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50 Green algae (Desmodesmus subspicatus)	31, 72 hours (based on growth rate - nominal concentration - OECD 201)

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Components		Species	Test Results
Crustacea	EC50	Daphnia magna	22.4, 48 hours (measured concentration - similar to OECD 202)
Fish	LC50	Oncorhynchus mykiss (reported as Salmo gairdneri)	7.5, 96 hours (measured concentration - OECD 203)
<b>2,6-DIMETHYL-7-OCTEN-2-OL (CAS 18479-58-8)</b>			
Other	EC50	Activated sludge of a predominantly domestic sewage	> 100 mg/l, 3 hours (respiration rate - nominal concentration - OECD 209)
<b>Aquatic</b>			
Algae	EC50	Algae	80, 72 hours (based on growth rate - nominal concentration - OECD 201) 65, 72 hours (based on biomass - nominal concentration - OECD 201)
	LOEC	Algae	50, 72 hours (nominal concentration - OECD 201)
	NOEC	Algae	25, 72 hours (nominal concentration - OECD 201)
Crustacea	LC50	Daphnia magna	38, 48 hours (nominal concentration - OECD 202)
	NOEC	Daphnia magna	9.5, 21 day (OECD 211 conducted with a structurally related substance)
Fish	LC50	Oncorhynchus mykiss	27.8, 96 hours (measured concentration - OECD 203 conducted with a structurally related substance)
<b>CARVENE (CAS 5989-27-5)</b>			
<b>Aquatic</b>			
Other	EC50	Activated Sludge	3.94
<i>Acute</i>			
Crustacea	EC50	Water flea (Daphnia pulex)	69.6, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	>= 0.619 - <= 0.796 mg/l, 96 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	35, 4 days
<b>CITRONELLOL (CAS 106-22-9)</b>			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	2.4, 72 hours
Crustacea	EC50	Daphnia	17, 48 hours
Fish	LC50	Leuciscus idus (Golden orfe)	> 10 - < 22 mg/l, 96 hours

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Components		Species	Test Results
HEXYL SALICYLATE (CAS 6259-76-3)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Green algae (Desmodesmus subspicatus)	0.61, 72 hours
Crustacea	EC50	Daphnia magna	1.5, 24 hours
IONONE BETA (CAS 14901-07-6)			
Other	EC50	Activated sludge of a predominantly domestic sewage	1000, 0.5 hours DIN EN ISO 8192-OECD 209-88/302/EEC,P C aerobic
<b>Aquatic</b>			
Algae	EC50	Green algae (Chlamydomonas variabilis)	22.15, 72 hours DIN 38412 Part 9 static The detail of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.
Crustacea	EC50	Daphnia magna	4.03, 48 hours OECD Giudeline 202, part 1 static The detail of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.
Fish	LC50	Pimephales promelas	5.09, 96 hours EPA 72-1 Flow through The detail of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.
ISOPROPYLPHENYLBUTANAL (CAS 125109-85-5)			
<b>Aquatic</b>			
Algae	ErC50	Green algae (Desmodesmus subspicatus)	11, 72 hours
Crustacea	EC50	Water flea (Daphnia magna)	7.7, 48 hours
Fish	LC50	Salmo gairdneri (new name Oncorhynchus mykiss)	1.082, 96 hours
LINALOOL (CAS 78-70-6)			
Other	EC10	Activated sludge of a predominantly domestic sewage	> 100 mg/l, 3 hours

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Components			Species	Test Results
<b>Aquatic</b>				
Algae	EC50		Green algae (Chlamydomonas variabilis)	88.3, 96 hours DIN 38412 Part 9 static. The details of the toxic effect related to the nominal concentration.
Crustacea	EC50		Daphnia magna	20, 48 hours DIN 38412 Part 11 static. The details of the toxic effect related to the nominal concentration.
Fish	LC50		Ide, silver or golden orfe (Leuciscus idus)	> 22 - < 46 mg/l, 96 hours DIN 38412 Part 15 static. The details of the toxic effect related to the nominal concentration.
	LC50-R		Fish	27.8, 96 hours
TRIDECENE-2-NITRILE (CAS 22629-49-8)				
<b>Aquatic</b>				
<i>Acute</i>				
Crustacea	EC50		Daphnia magna	0.02, 48 hours OECD Test Guideline 202

#### Persistence and degradability

##### Biodegradability

##### Percent degradation (Aerobic biodegradation-ready)

LINALOOL

> 60 - < 70 %, Readily biodegradable (according to OECD criteria).

Result: OECD 301D; EEC 92/69, C4-E (aerobic)

Test Duration: 28 days

#### Bioaccumulative potential

##### Partition coefficient n-octanol / water (log Kow)

CARVENE

4.232

CITRONELLAL

3.53

LINALOOL

2.97, (OECD Guideline 107)

#### Mobility in soil

No data available.

#### Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. DISPOSAL CONSIDERATIONS

#### Disposal instructions

Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Local disposal regulations

Dispose in accordance with all applicable regulations.

#### Hazardous waste code

Not established.

#### Waste from residues / unused products

Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

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**Contaminated packaging**      Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### 14. TRANSPORT INFORMATION

##### ADN

UN number	1169
UN proper shipping name	EXTRACTS, AROMATIC, LIQUID
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	III
Environmental hazards	No
Labels required	3

##### ADR

UN number	1169
UN proper shipping name	EXTRACTS, AROMATIC, LIQUID
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	III
Environmental hazards	No
Labels required	3

##### RID

UN number	1169
UN proper shipping name	EXTRACTS, AROMATIC, LIQUID
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing Group	III
Environmental Hazards	No
Labels required	3
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

##### DOT

##### BULK

UN number	1169
Proper shipping name	EXTRACTS, AROMATIC, LIQUID
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	No
Labels required	3

##### DOT

##### NON-BULK

Not regulated as dangerous goods.

##### IATA

UN number	1169
UN proper shipping name	EXTRACTS, AROMATIC, LIQUID

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Transport hazard class(es) 3  
Subsidiary class(es) -  
Packing group III  
Environmental hazards No  
Labels required 3

**IMDG**

UN number 1169  
UN proper shipping name EXTRACTS, AROMATIC, LIQUID  
Transport hazard class(es) 3  
Subsidiary class(es) -  
Packing group III  
Environmental hazards  
Marine pollutant No  
Labels required 3  
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

ADN; ADR; DOT BULK; IATA; IMDG; RID

**15. REGULATORY INFORMATION**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**

Not listed.



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**SARA 311/312 Hazardous chemical**

Yes

**Classified hazard categories**

Flammable (gases, aerosols, liquids, or solids)  
Skin corrosion or irritation  
Serious eye damage or eye irritation  
Respiratory or skin sensitization  
Aspiration hazard

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)**

Not regulated.

### 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Issue date** 12-01-2015  
**Revision date** 11-05-2021  
**Version #** 02  
**HMIS® ratings** Health: 2\*  
Flammability: 2  
Physical hazard: 0

**List of abbreviations**

ACGIH: American Conference of Governmental Industrial Hygienists.  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
AICIS: Australian Inventory of Industrial Chemicals.  
CAS: Chemical Abstract Service.  
IARC: International Agency for Research on Cancer.  
IATA: International Air Transport Association.  
IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.  
IMDG: International Maritime Dangerous Goods.  
MARPOL: International Convention for the Prevention of Pollution from Ships.  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.  
STEL: Short term exposure limit.  
TWA: Time Weighted Average.





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### Revision information

This document has undergone significant changes and should be reviewed in its entirety.