

## SAFETY DATA SHEET

502843 TEAK 109955

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**1. IDENTIFICATION**

<b>Product Description:</b>	<b>TEAK 109955</b>
<b>CAS #</b>	MIXTURE
<b>Other means of identification</b>	
<b>Vigon Item #</b>	502843
<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
<b>Company</b>	<b>24 Hour Emergency Response Information</b>
Vigon International, Inc.	INFOTRAC (ACCT# 78928);
127 Airport Road	1-800-535-5053 WITHIN THE U.S.A.
E. Stroudsburg, PA 18301	1-352-323-3500 OUTSIDE THE U.S.A.
For information call: 570-476-6300	
Web Site: www.vigon.com	

**2. HAZARD(S) IDENTIFICATION**

<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

**Label elements**

<b>Signal word</b>	Danger
<b>Hazard statement</b>	
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	
P261	Avoid breathing mist or vapor.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.



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P273 Avoid release to the environment.  
P280 Wear protective gloves.  
P280 Wear eye/face protection.

## Response

P302 + P352 IF ON SKIN: Wash with plenty of water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P391 Collect spillage.

## Storage

Store away from incompatible materials.

## Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## Hazard(s) not otherwise classified (HNOC)

None known.

## Supplemental information

27.05% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 23% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
HYDROGENATED METHYL ROSINATE		8050-15-5	10 - < 15
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl) ethan-1-one	patchouli ethanone ambergis ketone methyl cyclomyrcetone timbrone supra	54464-57-2	7.5 - < 10
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	7.5 - < 10
4-CYCLOHEXYL-2-METHYLBUTAN-2-OL	2,2-dimethyl cyclohexane propanol alpha,alpha-dimethyl cyclohexane propanol	83926-73-2	7.5 - < 10
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	7.5 - < 10

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Chemical name	Common name and synonyms	CAS number	%
CYCLOHEXANEPROPANOL, 2,2,6-TRIMETHYL- .ALPHA.-PROPYL-	6-(2,2,6- trimethyl cyclohexyl) -4-hexanol 2,2,6-TRIMETHYL-A-PROPYL CYCLOHEXANE PROPANOL 1-(2,2,6-Trimethyl cyclohexyl)hexane-3-ol cyclohexanepropanol, 2,2,6-trimethyl-a-propyl-	70788-30-6	7.5 - < 10
(+)-(1S,2S,3S,5R)-2,6,6-TRIMETHY BICYCLO[3.1.1]HEPTANE-3-SPIR O- 1'-(CYCLOHEX-2'-EN-4'-ONE)		133636-82-5	2.5 - < 5
[cis-4- (propan-2-yl)cyclohexyl]methanol	cis-tetrahydro perillyl alcohol CIS-P-MENTHAN-7-OL Cyclohexanemethanol, 4-(1-methylethyl)-, cis- cis-4-(Isopropyl)cyclohexanemethanol	13828-37-0	2.5 - < 5
TETRAHYDROLINALOOL	2,6-DIMETHYL-6-OCTANOL 3-Octanol, 3,7-dimethyl- 3,7-Dimethyloctan-3-ol linalool tetrahydride	78-69-3	2.5 - < 5
GUAIACWOOD ACETATE	guaiacwood oil acetylated	61789-17-1	1 - < 2.5
OXACYCLOHEXADECEN-2-ONE	(E)-12-musk decenone (12E)-1-oxa cyclohexadec-12-en-2-one	111879-80-2	1 - < 2.5
1-Propanol, 2-[1-(3,3-dimethylcyclohexyl) ethoxy]-2-methyl-,propanoate	[2-[1-(3,3-dimethylcyclohexyl)ethoxy] -2-methylpropyl]propanoate	141773-73-1	0.1 < 0.5
2-methyl-4-(2,2,3-trimethylcyclo pent-3-en-1-yl)pent-4-en-1-ol	3-CYCLOPENTEN-1-BUTANOL, BETA, 2,2,3-TETRAMETHYL-DELTA- METHYLENE-	104864-90-6	0.1 < 0.5
CYCLOHEXANEPROPANOL, 2,2,3,6-TETRAMETHYL-ALPHA- PROPYL-	2,2,3,6- tetramethyl-a-propylcyclohexane propanol	95851-08-4	0.1 < 0.5
Other components below reportable levels			20 - < 30

## 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.



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<b>Most important symptoms/effects, acute and delayed</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. 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, CO2, 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.

The product is immiscible with water and will spread on the water surface.

**Large Spills:** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Prevent product from entering drains. Do not allow material to contaminate ground water system. Absorb in vermiculite, dry sand or earth and place into containers.

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

Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Collect and dispose of spillage as indicated in section 13 of the SDS.

### 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.

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## 7. HANDLING AND STORAGE

### Precautions for safe handling

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

### 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.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limits

No exposure limits noted for ingredient(s).

### 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.

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**General hygiene considerations** 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.

### 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>	> 200.0 °F (> 93.3 °C) Closed Cup
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 0.1 mm Hg at 20 °C
<b>Vapor density</b>	Not available.
<b>Relative density</b>	0.95 at d 20/20
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	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>Flammability class</b>	Combustible IIIB estimated
<b>Specific gravity</b>	0.94 at 25 °C
<b>VOC (Weight %)</b>	< 17 %

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## 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.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	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 damage. Causes mild eye irritation.
<b>Ingestion</b>	Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

### Information on toxicological effects

**Acute toxicity** May cause an allergic skin reaction.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
[cis-4- (propan-2-yl)cyclohexyl]methanol (CAS 13828-37-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 10000 mg/kg
1-(1,2,3,4,5,6,7,8- Octahydro-2,3,8,8- tetramethyl-2- naphthyl) ethan-1-one (CAS 54464-57-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
1-Propanol, 2-[1-(3,3-dimethylcyclohexyl) ethoxy]-2-methyl-,propanoate (CAS 141773-73-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg (OECD 401: limit)

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<i>Oral</i>		
LD50	Rat	> 2000 mg/kg (OECD 402: limit)
2,6-DIMETHYL-7-OCTEN-2-OL (CAS 18479-58-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	3600 mg/kg
2-methyl-4-(2,2,3-trimethylcyclopent-3-en-1-yl)pent-4-en-1-ol (CAS 104864-90-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg OECD 402
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg OECD 401
4-CYCLOHEXYL-2-METHYLBUTAN-2-OL (CAS 83926-73-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 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
CYCLOHEXANEPROPANOL, 2,2,6-TRIMETHYL- .ALPHA.-PROPYL- (CAS 70788-30-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 20000 mg/kg
GUAIAACWOOD ACETATE (CAS 61789-17-1)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg



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Components	Species	Test Results
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
HYDROGENATED METHYL ROSINATE (CAS 8050-15-5)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg
OXACYCLOHEXADECEN-2-ONE (CAS 111879-80-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg
TETRAHYDROLINALOOL (CAS 78-69-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes skin irritation.
<b>Serious eye damage/eye irritation</b>	Causes serious 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.

**Carcinogenicity**

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

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>	Not an aspiration hazard.
<b>Further information</b>	This mixture has not been subjected to full toxicological testing. According to available data on the constituents the health classification criteria are met.

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### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects. This mixture has not been subjected to ecotoxicological testing as an entity. According to available data on the constituents the environmental classification criteria are met.

Components	Species	Test Results
1-(1,2,3,4,5,6,7,8- Octahydro-2,3,8,8- tetramethyl-2- naphthyl) ethan-1-one (CAS 54464-57-2)		
<i>Aquatic</i>		
<i>Acute</i>		
Algae	EC50	Green algae (Desmodesmus subspicatus) > 2.6 mg/l, 72 hours (based on biomass) - Algae study carried out according to a method similar to the OECD 201 guideline
		> 2.6 mg/l, 72 hours (based on growth rate) - Algae study carried out according to a method similar to the OECD 201 guideline
	NOEC	Green algae (Desmodesmus subspicatus) 2.6 mg/l, 72 hours (based on growth rate) - Algae study carried out according to a method similar to the OECD 201 guideline
Crustacea	EC50	Daphnia magna 1.38 mg/l, 48 hours Daphnia study carried out according to a method similar to the OECD 202 guideline
Fish	LC50	Bluegill (Lepomis macrochirus) 1.3 mg/l, 96 hours Fish study carried out according to a method similar to the OECD 203 guideline
<i>Chronic</i>		
Crustacea	LOEC	Daphnia magna 0.244 mg/l, 21 days (based on body length) - Daphnia study carried out according to the OECD 211 guideline
		0.096 mg/l, 21 days (based on reproduction) - Daphnia study carried out according to the OECD 211 guideline
	NOEC	Daphnia magna 0.448 mg/l, 21 days (based on mortality) - Daphnia study carried out according to the OECD 211 guideline
		0.096 mg/l, 21 days (based on body length) - Daphnia study carried out according to the OECD 211 guideline

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Components		Species	Test Results
			0.028 mg/l, 21 days (based on reproduction) - Daphnia study carried out according to the OECD 211 guideline
Fish	LOEC	Danio rerio	0.29 mg/l, 30 days (based on length and weight) - Fish study carried out according to the OECD 210 guideline
	NOEC	Danio rerio	0.54 mg/l, 30 days (based on egg survival) - Fish study carried out according to the OECD 210 guideline
			0.54 mg/l, 30 days (based on time to hatch) - Fish study carried out according to the OECD 210 guideline
			0.3 mg/l, 30 days (based on post hatch survival) - Fish study carried out according to the OECD 210 guideline
			0.16 mg/l, 30 days (based on length and weight) - Fish study carried out according to the OECD 210 guideline
1-Propanol, 2-[1-(3,3-dimethylcyclohexyl) ethoxy]-2-methyl-,propanoate (CAS 141773-73-1)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	> 1.1 mg/l, 72 hours (OECD 201)
Crustacea	EC50	Daphnia magna	3.3 mg/l, 48 hours (OECD 202)
Fish	LC50	Fish	3.6 mg/l, 96 hours (OECD 203)
2,6-DIMETHYL-7-OCTEN-2-OL (CAS 18479-58-8)			
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 mg/l, 72 hours (based on growth rate - nominal concentration - OECD 201)
			65 mg/l, 72 hours (based on biomass - nominal concentration - OECD 201)
	LOEC	Algae	50 mg/l, 72 hours (nominal concentration - OECD 201)
	NOEC	Algae	25 mg/l, 72 hours (nominal concentration - OECD 201)
Crustacea	LC50	Daphnia magna	38 mg/l, 48 hours (nominal concentration - OECD 202)

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	NOEC	Daphnia magna	9.5 mg/l, 21 day (OECD 211 conducted with a structurally related substance)
Fish	LC50	Oncorhynchus mykiss	27.8 mg/l, 96 hours (measured concentration - OECD 203 conducted with a structurally related substance)
2-methyl-4-(2,2,3-trimethylcyclopent-3-en-1-yl)pent-4-en-1-ol (CAS 104864-90-6)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	ErC50	Algae	> 0.61 mg/l OECD 201
Crustacea	EC50	Daphnia	0.6 mg/l OECD 202
Fish	LC50	Fish	> 0.74 mg/l OECD 203
4-CYCLOHEXYL-2- METHYLBUTAN-2-OL (CAS 83926-73-2)			
<b>Aquatic</b>			
Algae	EC50	Algae	25 mg/l, 72 hours
Crustacea	EC50	Daphnia	3.8 mg/l, 48 hours
Fish	LC50	Fish	13 mg/l, 96 hours
CITRONELLOL (CAS 106-22-9)			
<b>Aquatic</b>			
<i>Acute</i>			
Algae	EC50	Algae	2.4 mg/l, 72 hours
Crustacea	EC50	Daphnia	17 mg/l, 48 hours
Fish	LC50	Leuciscus idus (Golden orfe)	10 - 22 mg/l, 96 hours
HYDROGENATED METHYL ROSINATE (CAS 8050-15-5)			
<i>Acute</i>			
Other	EL50	Selenastrum capricornutum (new name Pseudokirchnerella subca)	> 1000 mg/l, 72 hours OECD 201
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EL50	Daphnia magna	> 100 mg/l, 48 hours OECD 202
Fish	LL50	Pimephales promelas	> 1000 mg/l, 96 hours OECD 203
OXACYCLOHEXADECEN-2-ONE (CAS 111879-80-2)			
<b>Aquatic</b>			
Algae	EC50	Algae	5 mg/l, 72 hr
Crustacea	EC50	Daphnia	0.48 mg/l, 48 hr
	LC50	Earthworm (Enchytraeus buchholzi)	> 1000 mg/kg, 14 day
Fish	LC50	Fish	2 mg/l, 96 hr

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Components	Species	Test Results
TETRAHYDROLINALOOL (CAS 78-69-3)		
<i>Aquatic</i>		
<i>Acute</i>		
Algae	EC50	Green algae (Desmodesmus subspicatus) 13.2 mg/l, 72 hours
Crustacea	EC50	Daphnia magna 14.2 mg/l, 48 hours
Fish	LC50	Danio rerio 8.9 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Biodegradability**

**Percent degradation (Aerobic biodegradation)**

OXACYCLOHEXADECEN-2-ONE OECD 301 F  
Result: biodegradable

**Percent degradation (Aerobic biodegradation-inherent)**

OXACYCLOHEXADECEN-2-ONE CO2 production  
Result: biodegradable  
SCAS, OECD 302 A  
Result: biodegradable

**Bioaccumulative potential** No data available.

**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).

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

## 14. TRANSPORT INFORMATION

ADN

UN number 3082

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<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8- tetramethyl-2- naphthyl) ethan-1-one,(+)-(1S,2S,3S,5R)-2,6,6-TRIMETHYLBICYCLO[3.1.1]HEPTANE-3-SPIRO-1'-(CYCLOHEX-2'-EN-4'-ONE))
<b>Transport hazard class(es)</b>	9
<b>Subsidiary class(es)</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	Yes
<b>Labels required</b>	9

**ADR**

<b>UN number</b>	3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8- tetramethyl-2- naphthyl) ethan-1-one,(+)-(1S,2S,3S,5R)-2,6,6-TRIMETHYLBICYCLO[3.1.1]HEPTANE-3-SPIRO-1'-(CYCLOHEX-2'-EN-4'-ONE))
<b>Transport hazard class(es)</b>	9
<b>Subsidiary class(es)</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	Yes
<b>Labels required</b>	9

**RID**

<b>UN number</b>	3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8- tetramethyl-2- naphthyl) ethan-1-one,(+)-(1S,2S,3S,5R)-2,6,6-TRIMETHYLBICYCLO[3.1.1]HEPTANE-3-SPIRO-1'-(CYCLOHEX-2'-EN-4'-ONE))
<b>Transport hazard class(es)</b>	9
<b>Subsidiary class(es)</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	Yes
<b>Labels required</b>	9

**DOT**

**BULK**

<b>UN number</b>	3082
<b>Proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8- tetramethyl-2- naphthyl) ethan-1-one,(+)-(1S,2S,3S,5R)-2,6,6-TRIMETHYLBICYCLO[3.1.1]HEPTANE-3-SPIRO-1'-(CYCLOHEX-2'-EN-4'-ONE))
<b>Hazard class</b>	9
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Packaging exceptions</b>	155
<b>Packaging bulk</b>	241
<b>Labels required</b>	9

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**DOT****NON-BULK**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

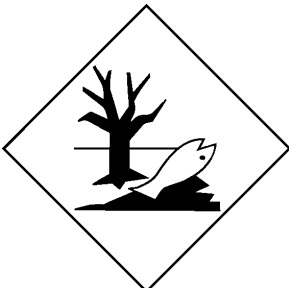
**IMDG**

<b>UN number</b>	3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8- tetramethyl-2- naphthyl) ethan-1-one, (+)-(1S,2S,3S,5R)-2,6,6-TRIMETHYLBICYCLO[3.1.1]HEPTANE-3-SPIRO-1'-(CYCLOHEX-2'-EN-4'-ONE))
<b>Transport hazard class(es)</b>	9
<b>Subsidiary class(es)</b>	-
<b>Packing group</b>	III
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Labels required</b>	9
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.

ADN; ADR; DOT BULK; IMDG; RID



Marine pollutant

**15. REGULATORY INFORMATION****US federal regulations**

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



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

Not listed.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

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

Not regulated.

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

<b>Hazard categories</b>	Immediate Hazard - Yes
	Delayed Hazard - No
	Fire Hazard - No
	Pressure Hazard - No
	Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**      No

**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.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.





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### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date	11-21-2015
Revision date	09-23-2015
Version #	01
HMIS® ratings	Health: 3 Flammability: 1 Physical hazard: 0

#### Disclaimer

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