

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 1 of 18

Version # 01

Print Date: 12-01-2015

1. IDENTIFICATION

Product Description:	TANGERIS GIVCO 212
CAS #	MIXTURE
Other means of identification	
Vigon Item #	502041
Recommended use	Concentrated aromatic ingredient which may be used fragrance compounds according to legal and IFRA guidelines.
Recommended restrictions	For Manufacturing Use Only
<u>Company</u>	<u>24 Hour Emergency Response Information</u>
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

Physical hazards	Flammable liquids	Category 3
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

Label elements



Signal word Warning

Hazard statement

H226	Flammable liquid and vapor.
H315	Causes skin irritation.
H315 + H320	Causes skin and eye irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 2 of 18

Version # 01

Print Date: 12-01-2015

P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing mist or vapor.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.

Response

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use appropriate media to extinguish.
P391	Collect spillage.

Storage

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal

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

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

29.75% 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	%
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

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 3 of 18

Version # 01

Print Date: 12-01-2015

Chemical name	Common name and synonyms	CAS number	%
ISOPROPYLPHENYLBUTANAL	3-(3- propan-2-ylphenyl)butanal BENZENEPROPANAL,BETA-METHYL-3-(1-METHYLETHYL) BETA-METHYL-3-(1-METHYLETHYL)-BENZENEPROPANAL	125109-85-5	5 - < 10
(E)-6,10-DIMETHYLUDECA-5,9-DIEN-2-YL ACETATE		3239-35-8	3 - < 5
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
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-cyclohexylidenephanylacetonitrile 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

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 4 of 18

Version # 01

Print Date: 12-01-2015

Chemical name	Common name and synonyms	CAS number	%
IONONE BETA	beta-cyclocitrylidene 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
Undecylaldehyde	UNDECANAL hendecanal undecyl aldehyde hendecanaldehyde	112-44-7	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
TRIDECENE-2-NITRILE	2-Tridecenenitrile Tridec-2-enenitrile	22629-49-8	< 0.1
Other components below reportable levels			30 - < 40

4. FIRST-AID MEASURES

Inhalation	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.
Skin contact	Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.
Eye contact	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.
Ingestion	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.
Most important symptoms/effects, acute and delayed	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.
Indication of immediate medical attention and special treatment needed	Not available.
General information	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

Suitable extinguishing media	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.



SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 5 of 18

Version # 01

Print Date: 12-01-2015

Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.
Special protective equipment and precautions for firefighters	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.
Fire fighting equipment/instructions	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.
Specific methods	Use water spray to cool unopened containers.
General fire hazards	Static charges generated by emptying package in or near flammable vapor may cause flash fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	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.
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.
----------------------------------	--

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.

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 6 of 18

Version # 01

Print Date: 12-01-2015

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
CARVENE (CAS 5989-27-5)	TWA	165.5 mg/m3
		30 ppm

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Refer to Spec Sheet
Physical state	Liquid.
Form	Liquid.
Color	Refer to Spec Sheet
Odor	Characteristic.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	138.0 °F (58.9 °C) Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 7 of 18

Version # 01

Print Date: 12-01-2015

Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0.24 hPa at 20 °C Calculated (96.4 %)
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	940.97 kg/m ³ at 20 °C
Flammability class	Combustible II estimated
Molecular formula	Not applicable
Specific gravity	0.94 at 25 °C

10. STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products if stored and handled as indicated.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation. Causes mild eye irritation.
Ingestion	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. 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.
-----------------------	--------------------------------------

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 8 of 18

Version # 01

Print Date: 12-01-2015

Product	Species	Test Results
TANGERIS GIVCO 212		
Acute		
<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)		
Acute		
<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)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2500 mg/kg
<i>Oral</i>		
LD50	Rat	2500 mg/kg
2,6-DIMETHYL-7-OCTEN-2-OL (CAS 18479-58-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	3600 mg/kg
2-CYCLOHEXYLIDENE-2- PHENYLACETONITRILE (CAS 10461-98-0)		
Acute		
<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)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 9 of 18

Version # 01

Print Date: 12-01-2015

Components	Species	Test Results
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
CARVENE (CAS 5989-27-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	5 g/kg
<i>Oral</i>		
LD50	Rat	4400 mg/kg
CITRONELLAL (CAS 106-23-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2500 mg/kg
<i>Oral</i>		
LD50	Rat	2420 mg/kg
CITRONELLOL (CAS 106-22-9)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2650 mg/kg
<i>Oral</i>		
LD50	Rat	3450 mg/kg
DECANAL (CAS 112-31-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	5040 mg/kg
<i>Oral</i>		
LD50	Rat	3730 mg/kg
HEXYL CINNAMIC ALDEHYDE (CAS 101-86-0)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 3000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
HEXYL SALICYLATE (CAS 6259-76-3)		
Acute		
<i>Dermal</i>		
	Rabbit	> 5000 mg/kg

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 10 of 18

Version # 01

Print Date: 12-01-2015

Components	Species	Test Results
<i>Oral</i>		
	Rat	> 5000 mg/kg
IONONE BETA (CAS 14901-07-6)		
Acute		
<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	Mouse	> 5300 mg/kg
	Rat	> 4000 mg/kg
ISOPROPYLPHENYLBUTANAL (CAS 125109-85-5)		
Acute		
<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)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2000 mg/kg
<i>Oral</i>		
LD50	Rat	2790 mg/kg
TRIDECENE-2-NITRILE (CAS 22629-49-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg
Undecylaldehyde (CAS 112-44-7)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	5000 mg/kg (OECD Test Guideline 402)

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 11 of 18

Version # 01

Print Date: 12-01-2015

Components	Species	Test Results
<i>Oral</i> LD50	Rat	5000 mg/kg (OECD Test Guideline 401)

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

Skin corrosion/irritation	Causes skin irritation. May cause skin irritation and/or dermatitis.
Serious eye damage/eye irritation	Causes serious eye irritation. May cause irreversible eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	
IARC Monographs. Overall Evaluation of Carcinogenicity	
CARVENE (CAS 5989-27-5)	3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not listed.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
2,4-DIMETHYLCYCLOHEX-3-ENE-1-CARBALDEHYDE (CAS 68039-49-6)		
Aquatic		
<i>Acute</i>		
Algae	EC50	Green algae (Desmodesmus subspicatus) 31 mg/l, 72 hours (based on growth rate - nominal concentration - OECD 201)
Crustacea	EC50	Daphnia magna 22.4 mg/l, 48 hours (measured concentration - similar to OECD 202)
Fish	LC50	Oncorhynchus mykiss (reported as Salmo gairdneri) 7.5 mg/l, 96 hours (measured concentration - 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)

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 12 of 18

Version # 01

Print Date: 12-01-2015

Components			Species	Test Results
Aquatic				
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)
	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)
CARVENE (CAS 5989-27-5)				
Aquatic				
Crustacea	EC50		Water flea (Daphnia pulex)	69.6 mg/l, 48 hours
Fish	LC50		Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours
			Rainbow trout,donaldson trout (Oncorhynchus mykiss)	35 mg/l, 4 days
Other	EC50		Activated Sludge	3.94 mg/l
CITRONELLOL (CAS 106-22-9)				
Aquatic				
<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
HEXYL SALICYLATE (CAS 6259-76-3)				
Aquatic				
<i>Acute</i>				
Algae	EC50		Green algae (Desmodesmus subspicatus)	0.61 mg/l, 72 hours
Crustacea	EC50		Daphnia magna	1.5 mg/l, 24 hours
IONONE BETA (CAS 14901-07-6)				
Other	EC50		Activated sludge of a predominantly domestic sewage	1000 mg/l, 0.5 hours DIN EN ISO 8192-OECD 209-88/302/EEC,P C aerobic

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 13 of 18

Version # 01

Print Date: 12-01-2015

Components		Species	Test Results
Aquatic			
Algae	EC50	Green algae (<i>Chlamydomonas variabilis</i>)	22.15 mg/l, 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 mg/l, 48 hours OECD Guideline 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 mg/l, 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)			
Aquatic			
Algae	ErC50	Green algae (<i>Desmodesmus subspicatus</i>)	11 mg/l, 72 hours
Crustacea	EC50	Water flea (<i>Daphnia magna</i>)	7.7 mg/l, 48 hours
Fish	LC50	<i>Salmo gairdneri</i> (new name <i>Oncorhynchus mykiss</i>)	1.082 mg/l, 96 hours
LINALOOL (CAS 78-70-6)			
Other	EC10	Activated sludge of a predominantly domestic sewage	> 100 mg/l, 3 hours
Aquatic			
Algae	EC50	Green algae (<i>Chlamydomonas variabilis</i>)	88.3 mg/l, 96 hours DIN 38412 Part 9 static. The details of the toxic effect related to the nominal concentration.
Crustacea	EC50	Daphnia magna	20 mg/l, 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 (<i>Leuciscus idus</i>)	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 mg/l, 96 hours

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 14 of 18

Version # 01

Print Date: 12-01-2015

Components	Species	Test Results
TRIDECENE-2-NITRILE (CAS 22629-49-8)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Daphnia magna
		0.02 mg/l, 48 hours OECD Test Guideline 202

* 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.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

CARVENE	4.232
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).
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	1169
UN proper shipping name	EXTRACTS, AROMATIC, LIQUID (METHYL ISOPROPENYL CYCLOHEXENE,HEXYL SALICYLATE)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	III
Environmental hazards	Yes
Labels required	3

ADR

UN number	1169
UN proper shipping name	EXTRACTS, AROMATIC, LIQUID (METHYL ISOPROPENYL CYCLOHEXENE,HEXYL SALICYLATE)

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 15 of 18

Version # 01

Print Date: 12-01-2015

Transport hazard class(es) 3
Subsidiary class(es) -
Packing group III
Environmental hazards Yes
Labels required 3

RID

UN number 1169
UN proper shipping name EXTRACTS, AROMATIC, LIQUID (METHYL ISOPROPENYL CYCLOHEXENE,HEXYL SALICYLATE)
Transport hazard class(es) 3
Subsidiary class(es) -
Packing group III
Environmental hazards Yes
Labels required 3

DOT

BULK

UN number 1169
Proper shipping name EXTRACTS, AROMATIC, LIQUID (METHYL ISOPROPENYL CYCLOHEXENE,HEXYL SALICYLATE)
Hazard class 3
Packing group III
Environmental hazards
 Marine pollutant Yes
Packaging exceptions 150
Packaging bulk 242
Labels required 3

DOT

NON-BULK

UN number 1169
Proper shipping name EXTRACTS, AROMATIC, LIQUID
Hazard class 3
Packing group III
Environmental hazards
 Marine pollutant No
Packaging exceptions 150
Packaging non bulk 203
Labels required 3

IATA

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

SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 16 of 18

Version # 01

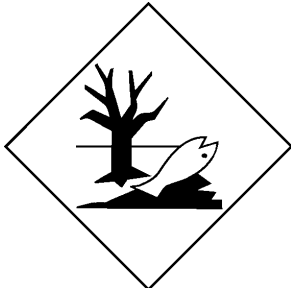
Print Date: 12-01-2015

Labels required	3
IMDG	
UN number	1169
UN proper shipping name	EXTRACTS, AROMATIC, LIQUID (METHYL ISOPROPENYL CYCLOHEXENE,HEXYL SALICYLATE)
Transport hazard class(es)	3
Subsidiary class(es)	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Labels required	3
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

ADN; ADR; DOT BULK; DOT NON-BULK; IATA; 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.

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.



SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 17 of 18

Version # 01

Print Date: 12-01-2015

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)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
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

CARVENE (CAS 5989-27-5)

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.

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)	Yes



SAFETY DATA SHEET

502041 TANGERIS GIVCO 212

Revision Date: 12-01-2015

Page 18 of 18

Version # 01

Print Date: 12-01-2015

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
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)	Yes
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 12-01-2015
Revision date 12-01-2015
Version # 01
HMIS® ratings Health: 2
Flammability: 2
Physical hazard: 0

Disclaimer Vigon cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, disposal, and should not be considered as a guarantee or quality specification. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers, and technical groups and is considered to be accurate to the best of Vigon's knowledge as of the date of this document. It is the responsibility of the user to review all safety information about this product and determine its safety and suitability in their own processes and operations. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations.