

SAFETY DATA SHEET

502804 JASMIN 231

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1. IDENTIFICATION

Product Description: JASMIN 231

CAS # MIXTURE

Other means of identification

Vigon Item # 502804

Recommended use Concentrated aromatic ingredient which may be used fragrance compounds according to legal and IFRA guidelines.

Recommended restrictions For Manufacturing Use Only

Company

Vigon International, Inc.
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

Company name Vigon International, Inc.
Address 127 Airport Road
E. Stroudsburg, PA 18301
United States
Telephone For information call: 570-476-6300
Website www.vigon.com
E-mail Not available.

Emergency phone number 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

Physical hazards	Flammable liquids	Category 4
Health hazards	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Reproductive toxicity	Category 2
Environmental hazards	Hazardous to the aquatic environment, long-term hazard	Category 3

Label elements



Signal word

Danger

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Hazard statement Combustible liquid. May cause an allergic skin reaction. Causes serious eye damage. Suspected of damaging fertility or the unborn child. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing mist or vapor. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.

Storage

Store in a well-ventilated place. Store locked up.

Disposal

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

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Chemical name	Common name and synonyms	CAS number	%
BENZYL ACETATE	PHENYL METHYL ACETATE a-acetoxytoluene benzenemethanol acetate benzenemethanol ethanoate benzyl ethanoate	140-11-4	20 - < 30
HYDROXYCITRONELLAL	7-HYDROXY-3,7-DIMETHYL-OCTANAL HYDROXYCITRONELLAL Octanal, 7-hydroxy-3,7-dimethyl- HYDROXY-CITRONELLAL	107-75-5	20 - < 30
PHENYL ETHYL ALCOHOL	BENZYL CARBINOL 2-Phenylethanol	60-12-8	10 - < 15
BENZYL ALCOHOL	ALPHA-HYDROXYTOLUENE PHENYLCARBINOL PHENYLMETHANOL ALPHA-TOLUENOL Benzenemethanol phenylmethanol Benzyl carbinol	100-51-6	5 - < 7.5
CINNAMIC ALCOHOL	3-PHENYL-2-PROPEN-1-OL STYRYL CARBINOL 1- phenyl prop-1-en-3-ol 3- phenyl allyl alcohol	104-54-1	5 - < 7.5

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Chemical name	Common name and synonyms	CAS number	%
PHENYL ETHYL ACETATE	benzyl carbinyl acetate beta- phenyl ethyl acetate phenethyl ethanoate 2-PHENYLETHYL ACETATE	103-45-7	5 - < 7.5
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	2.5 - < 5
GERANIOL	3,7-DIMETHYL-2,6-OCTADIEN-1-OL (2E)-3,7- dimethylocta-2,6-dien-1-ol LEMONOL GERANYL ALCOHOL	106-24-1	1 - < 2.5
BENZYL BENZOATE	benzyl benzene carboxylate phenyl methyl benzoate BENZYL PHENYL FORMATE	120-51-4	0.1 < 0.5
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	0.1 < 0.5
CRESOL PARA	PARA-CRESYLIC ACID 1-Hydroxy-4-methylbenzene METHYL PHENOL (CRESOL, CRESYLIC ACID) p-METHYLHYDROXYBENZENE P-CRESYLIC ACID 4-Hydroxytoluene PARAMETHYL PHENOL 4-METHYL PHENOL	106-44-5	0.1 < 0.5
CRESYL METHYL ETHER PARA	1- methoxy-4-methylbenzene METHYL P-CRESOL 4-Methylanisole methyl p-tolyl ether 4- methoxytoluene	104-93-8	0.1 < 0.5
DIPENTENE	p- mentha-1,8-diene D,L- limonene 1- methyl-4-prop-1-en-2-ylcyclohexene	138-86-3	0.1 < 0.5
GERANYL ACETATE	geranyl ethanoate 2,6-DIMETHYL-2,6-OCTADIENE-8-YL ACETATE 3,7-DIMETHYL-2-TRANS-6-OCTADIENY L ACETATE [(2E)-3,7- dimethylocta-2,6-dienyl] acetate	105-87-3	0.1 < 0.5
NEROL	(2Z)-3,7- dimethylocta-2,6-dien-1-ol	106-25-2	0.1 < 0.5

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Chemical name	Common name and synonyms	CAS number	%
CINNAMIC ALDEHYDE	CINNAMAL 3- phenylprop-2-enal PHENYL ACROLEIN benzylidene acetaldehyde 3- phenyl acryl aldehyde	104-55-2	0< 0.1
ISOEUGENOL	2- methoxy-4-prop-1-en-2-ylphenol 2-Methoxy-4-(1-propenyl)phenol; 4-Hydroxy-3-methoxy-1-propenylbenzene , Isoeugenol Phenol, 2-methoxy-4-(1-propen-1-yl)-	97-54-1	0< 0.1
Other components below reportable levels			10 - < 20

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. Permanent eye damage including blindness could result. 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.
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.



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

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

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
CRESOL PARA (CAS 106-44-5)	PEL	22 mg/m ³ 5 ppm



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US. ACGIH Threshold Limit Values

Components	Type	Value	Form
BENZYL ACETATE (CAS 140-11-4)	TWA	10 ppm	
CRESOL PARA (CAS 106-44-5)	TWA	20 mg/m ³	Inhalable fraction and vapor.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
CRESOL PARA (CAS 106-44-5)	REL	10 mg/m ³
		2.3 ppm
	TWA	10 mg/m ³ 2.3 ppm

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
BENZYL ALCOHOL (CAS 100-51-6)	TWA	44.2 mg/m ³
		10 ppm
DIPENTENE (CAS 138-86-3)	TWA	165.5 mg/m ³
		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. Adequate ventilation should be provided so that exposure limits are not exceeded.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Avoid contact with eyes.
Skin protection	
Hand protection	Chemical resistant gloves.
Other	Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. 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.

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Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	196.0 °F (91.1 °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.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 0.1 mm Hg at 20°C
Vapor density	Not available.
Relative density	1 at d 20/20
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	
Explosive properties	Not explosive.
Flammability class	Combustible IIIA estimated
Oxidizing properties	Not oxidizing.
VOC	< 32 %

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.

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11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
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. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
BENZYL ACETATE (CAS 140-11-4)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
BENZYL ALCOHOL (CAS 100-51-6)		
Acute		
<i>Inhalation</i>		
LC50	Rat	11 mg/l, 8 Hours
BENZYL BENZOATE (CAS 120-51-4)		
Acute		
<i>Dermal</i>		
LD50	Rat	4000 mg/kg
CINNAMIC ALCOHOL (CAS 104-54-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	2000 mg/kg
CINNAMIC ALDEHYDE (CAS 104-55-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	0.59 ml/kg
<i>Oral</i>		
LD50	Rat	2200 mg/kg

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Components	Species	Test Results
CITRONELLOL (CAS 106-22-9)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2650 mg/kg
<i>Oral</i>		
LD50	Rat	3450 mg/kg
CRESOL PARA (CAS 106-44-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	301 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 710 mg/m ³ , 1 hours
<i>Oral</i>		
LD50	Rat	207 mg/kg Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction:Other changes. Behavioral:Convulsions or effect on seizure threshold. Gastrointestinal:Ulceration or bleeding from stomach.
CRESYL METHYL ETHER PARA (CAS 104-93-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 4850 mg/kg (OECD Test Guideline 402)
<i>Oral</i>		
LD50	Rat	1920 mg/kg (OECD Test Guideline 401)
DIPENTENE (CAS 138-86-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	5 g/kg
<i>Oral</i>		
LD50	Rat	5 g/kg
GERANIOL (CAS 106-24-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	3600 mg/kg

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Components	Species	Test Results
HYDROXYCITRONELLAL (CAS 107-75-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg OECD 402: limit
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg OECD 401: limit
ISOEUGENOL (CAS 97-54-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	1900 mg/kg
<i>Oral</i>		
LD50	Rat	1560 mg/kg
LINALOOL (CAS 78-70-6)		
Acute		
<i>Oral</i>		
LD50	Rat	2790 mg/kg
NEROL (CAS 106-25-2)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 5000 mg/kg
<i>Oral</i>		
LD50	Rat	4500 mg/kg
PHENYL ETHYL ACETATE (CAS 103-45-7)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	6210 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 500 mg/m3
<i>Oral</i>		
LD50	Rat	5000 mg/kg
PHENYL ETHYL ALCOHOL (CAS 60-12-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	2500 mg/kg
<i>Oral</i>		
LD50	Rat	1610 mg/kg

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

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Serious eye damage/eye irritation Causes serious 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

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

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

Not available.

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

Further information This mixture has not been subjected to full toxicological testing. According to available data on the constituents the health classification criteria are met.

12. ECOLOGICAL INFORMATION

Ecotoxicity Harmful 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
BENZYL ACETATE (CAS 140-11-4)		
Aquatic		
Fish	LC50	Medaka, high-eyes (<i>Oryzias latipes</i>) > 3.48 - < 4.6 mg/l, 96 hours
BENZYL ALCOHOL (CAS 100-51-6)		
Aquatic		
Crustacea	EC50	Daphnia magna 55 mg/l, 24 hours
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) 10 mg/l, 96 hours
		Fathead minnow (<i>Pimephales promelas</i>) 460 mg/l, 96 hours

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Components			Species	Test Results
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
CRESOL PARA (CAS 106-44-5)				
Aquatic				
Crustacea	LC50		Water flea (Daphnia magna)	1.4 mg/l, 48 hours
Fish	LC50		Fish (Lepidocephalichthyes guntea)	> 16.42 - < 26.86 mg/l, 24 hours
			Oncorhynchus mykiss (reported as Salmo gairdneri)	7.9 mg/l, 96 hours
CRESYL METHYL ETHER PARA (CAS 104-93-8)				
Aquatic				
<i>Acute</i>				
Algae	EC50		Algae	320 mg/l, 72 hours
			Green algae (Desmodesmus subspicatus)	500 mg/l, 72 hours
Crustacea	EC50		Water flea (Daphnia obtusa)	27 mg/l, 48 hours (OECD Test Guideline 202)(OECD Test Guideline 202)
Fish	LC50		Leuciscus idus (Golden orfe)	68.2 mg/l, 96 hours
Other	EC50		Bacterium	5300 mg/l, 0.5 hours
DIPENTENE (CAS 138-86-3)				
Aquatic				
Fish	LC50		Carp (Leuciscus idus melanotus)	34 mg/l, 48 hours
GERANIOL (CAS 106-24-1)				
Other	EC50		Activated sludge of a predominantly domestic sewage	70 mg/l, 0.5 hours
Aquatic				
Algae	EC50		Green algae (Desmodesmus subspicatus)	13.1 mg/l, 72 hours
Crustacea	EC50		Daphnia magna	10.8 mg/l, 48 hours
Fish	LC50		Danio rerio	22 mg/l, 96 hours
			Fathead minnow (Pimephales promelas)	> 2.7 - < 3.8 mg/l, 96 hours

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Components		Species	Test Results
GERANYL ACETATE (CAS 105-87-3)			
Aquatic			
Algae	EC50	Green algae (<i>Chlamydomonas variabilis</i>)	3.72 mg/l, 72 hours OECD Guideline 201 static. The statement of the toxic effect relates to the analytically determined concentration.
Crustacea	EC50	Daphnia magna	14.1 mg/l, 48 hours Directive 84/449/EEC, C.2 static. The statement of the toxic effect relates to the analytically determined concentration.
Fish	LC50	Fish	68.12 mg/l, 96 hours <i>Cyprinus carpio</i> . OECD Guideline 203 static. The product has not been tested. The statement has been derived from products of a similar structure or composition.
Other	EC10	Bacterium	> 10000 mg/l, 0.5 hours DIN 38412 Part 27 (draft) aquatic. The statement of the toxic effect relates to the analytically determined concentration. The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.
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
NEROL (CAS 106-25-2)			
<i>Acute</i>			
Algae	EC50	Green algae (<i>Pseudokirchneriella subcapitata</i>)	9.54 mg/l, 72 hours

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Components	Species	Test Results
Aquatic		2.16 mg/l, 72 hours
<i>Acute</i>		
Crustacea	EC50 Daphnia magna	32.4 mg/l, 48 hours
Fish	LC50 Danio rerio	20.3 mg/l, 96 hours

Persistence and degradability

Biodegradability

Percent degradation (Aerobic biodegradation)

GERANIOL > 90 % OECD 301A (new version)(aerobic), activated sludge, domestic DOC reduction, Readily biodegradable (according to OECD criteria)

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)

BENZYL ACETATE	1.96
BENZYL ALCOHOL	1.1
BENZYL BENZOATE	3.97
CRESOL PARA	1.94
CRESYL METHYL ETHER PARA	2.66
DIPENTENE	4.232
LINALOOL	2.97, (OECD Guideline 107)
PHENYL ETHYL ALCOHOL	1.36

Mobility in soil No data available.

Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

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	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.



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14. TRANSPORT INFORMATION

ADN

Not regulated as dangerous goods.

ADR

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

DOT

BULK

UN number	NA1993
Proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (DIPENTENE, CRESYL METHYL ETHER PARA)
Hazard class	Combustible liq
Packing group	III
Environmental hazards	
Marine pollutant	No
Packaging exceptions	150
Packaging bulk	242
Labels required	None

DOT

NON-BULK

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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.

SARA 304 Emergency release notification

Not regulated.

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

Not available.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

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

Not regulated.

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)
Serious eye damage or eye irritation
Respiratory or skin sensitization
Reproductive toxicity

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

California Proposition 65

California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

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

Issue date 11-20-2015
Revision date 03-28-2018
Version # 04
HMIS® ratings Health: 3*
Flammability: 2
Physical hazard: 0



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Disclaimer

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Revision information

IDENTIFICATION: Recommended restrictions
HAZARD(S) IDENTIFICATION: Prevention
HAZARD(S) IDENTIFICATION: Response
COMPOSITION/INFORMATION ON INGREDIENTS: Component information
EXPOSURE CONTROLS/PERSONAL PROTECTION: Appropriate engineering controls
Physical & Chemical Properties: Multiple Properties
TOXICOLOGICAL INFORMATION: Carcinogenicity
TOXICOLOGICAL INFORMATION: Inhalation
REGULATORY INFORMATION: California Proposition 65
OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION: References
Material Attributes & Uses; Experimental Data: Material Attributes