

SAFETY DATA SHEET



Valencene 75

5016010

Version 1.0

Revision Date 01/18/2016

Print Date 07/12/2016

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Valencene 75

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-stance/Mixture : Ingredient for fragrances, Ingredient for flavours

1.3 Details of the supplier of the safety data sheet

Company : DSM Nutritional Products Ltd.
PO Box 2676
CH-4002 Basel
Telephone : +41618158888
Telefax : +41618157253
E-mail address Responsible/issuing person : sds.nutritionalproducts@dsm.com

1.4 Emergency telephone number

+41 62 866 2314

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	clear liquid
Colour	colourless, pale yellow
Odour	citrous-like, sweet, woody

GHS Classification

Skin sensitisation : Category 1

Aspiration hazard : Category 1

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.

Precautionary statements : **Prevention:**
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

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P331 Do NOT induce vomiting.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Aggravated Medical Condition : None known.

Symptoms of Overexposure : No specific symptoms known.

Carcinogenicity:**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Additional hazards and advice

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Brief description of the product : Processed natural product

Hazardous components

Component	CAS-No.	Weight percent
[1R-(1 α ,7 β ,8 α)]-1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylvinyl)naphthalene (Valencene)	4630-07-3	90 - 100
dodecanal	112-54-9	0.1 - 1
(R)-p-mentha-1,8-diene	5989-27-5	0.1 - 1
citral	5392-40-5	0.1 - 1

SECTION 4. FIRST AID MEASURESGeneral advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.If inhaled : Move to fresh air.
Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.

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	Wash off with soap and plenty of water. If symptoms persist, call a physician.
In case of eye contact	: Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Obtain medical attention. Do NOT induce vomiting.
Most important symptoms and effects, both acute and delayed	: No specific symptoms known.
Notes to physician	: Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Flammable properties

Flash point : 212 - 230 °F (100 - 110 °C)
The investigation was made with pure substance.

Ignition temperature : not determined

Lower explosion limit : not determined

Upper explosion limit : not determined

Fire fighting

Suitable extinguishing media : Alcohol-resistant foam
Dry chemical
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : High volume water jet

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Protective equipment and precautions for firefighters

Specific hazards during fire-fighting : None known.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Use personal protective equipment.
Ensure adequate ventilation.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).
Avoid contact with skin and eyes.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
Smoking, eating and drinking should be prohibited in the application area.
- Advice on protection against fire and explosion : Take necessary action to avoid static electricity discharge.
Product will burn under fire conditions.
- Conditions for safe storage : Keep under inert gas.
Protect against light.

Keep container tightly closed and dry.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Storage temperature : 50 - 59 °F (10 - 15 °C)

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
citral	5392-40-5	TWA (Inhalable fraction and vapor)	5 ppm	ACGIH

Hazardous components without workplace control parameters

Personal protective equipment

- Respiratory protection : In the case of vapour formation use a respirator with an approved filter.
- Hand protection : Glove material: PVA

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	Consider the hazard characteristics of this product and any special workplace conditions when selecting the appropriate type of protective gloves.
Eye protection	: Safety glasses with side-shields
Skin and body protection	: Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: When using do not eat or drink. When using do not smoke. Avoid contact with skin, eyes and clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	: clear liquid
Colour	: colourless - pale yellow
Odour	: citrous-like, sweet, woody
Odour Threshold	: No information available.
pH	: No data available
Melting point/range	: not determined
Boiling point/boiling range	: 270 - 274 °C (at 1,013 hPa) The investigation was made with pure substance.
Flash point	: 100 - 110 °C The investigation was made with pure substance.
Evaporation rate	: not determined
Lower explosion limit	: not determined
Upper explosion limit	: not determined
Vapour pressure	: < 0.0013 hPa (at 20 °C)
Relative vapour density	: Not applicable
Relative density	: 0.91 - 0.97 (at 20 °C)
Density	: 0.90 - 0.97 g/cm ³ (at 25 °C)
Water solubility	: insoluble
Solubility in other solvents	: Propylene glycol: insoluble Ethanol: soluble Oils and fats: soluble
Partition coefficient: n-octanol/water	: log Pow ca. 6.5 (25 °C; calculated value) Information refers to the main component.
Auto-ignition temperature	: No data available
Ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity, dynamic	: not determined
Explosive properties	: Not explosive

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Oxidizing properties : No data available

9.2 Other information

Refractive index : 1.49 - 1.52 (20 °C)

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Possible incompatibility with materials listed under section 10.5.

Conditions to avoid : Heat

Incompatible materials : Oxidizing agents
Acids
Bases

Hazardous decomposition products : No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
(Calculation method)

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
(Calculation method)

Skin irritation : Mild skin irritation (Rabbit)
Information refers to the main component.

: Patch Test 24 Hrs. on humans: No detectable irritation., Information refers to the main component.

Eye irritation : No data available

Sensitisation
[1R-(1 α ,7 β ,8 α)]-
1,2,3,5,6,7,8,8a-octahydro-
1,8a-dimethyl-7-(1-
methylvinyl)naphthalene : Did not cause sensitization. (human)

dodecanal : Causes sensitisation. (Mouse, Local Lymph Node Assay
(LLNA), OECD Test Guideline 429)
Test performed using a similar product.
publicly available data

(R)-p-mentha-1,8-diene : Causes sensitisation. (Guinea pig)
May cause sensitisation by skin contact.

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citral	: Causes sensitisation.
Carcinogenicity	: This information is not available.
Genotoxicity in vitro	: not genotoxic (Micronucleus test) Test performed using a similar product.
	: not mutagenic (Ames test) Test performed using a similar product.
Reproductive toxicity	: This information is not available.
STOT - repeated exposure	: This information is not available.
Further information	: Solvents may degrease the skin.
Aspiration toxicity	: May be fatal if swallowed and enters airways.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish
dodecanal : Oncorhynchus mykiss (rainbow trout)
LC50 (96 h) 2.6 mg/l
No toxicity at the limit of solubility
publicly available data
(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates
(R)-p-mentha-1,8-diene : Daphnia magna (Water flea)
EC50 (48 h) 0.42 mg/l

No data is available on the product itself.

Persistence and degradability

Biodegradability
dodecanal : Readily biodegradable
73 % (28 d)
(OECD Test Guideline 301F)
publicly available data

No data is available on the product itself.

Bioaccumulative potential

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Bioaccumulation : No data available

Partition coefficient: n-octanol/water : log Pow ca. 6.5 (25 °C ; calculated value)
Information refers to the main component.

Mobility in soil

Distribution among environmental compartments : No data available

Other adverse effects

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Discharge into the environment must be avoided.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Offer surplus and non-recyclable solutions to a licensed disposal company.

User must determine if any wastes generated exhibit hazardous characteristics as per 40 CFR Part 261 or other national / local legislation.

Contaminated packaging : Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

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UN/ID/NA number : NA 1993
Proper shipping name : Combustible liquid, n.o.s.
([1R-(1 α ,7 β ,8 α)]-1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylvinyl)naphthalene)
Class : CBL
Packing group : III
Labels : None
ERG Code : 128
Marine pollutant : no

Special precautions for user

Above applies only to containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal to 119 gallons (450 liters).

Remarks : 49CFR: no dangerous good in non-bulk packaging

SECTION 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.
No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

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No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

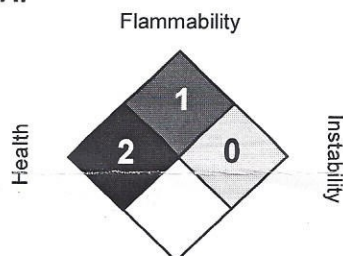
[1R-(1 α ,7 β ,8 α)]-1,2,3,5,6,7,8,8a-octahydro- 4630-07-3 90 - 100 %
1,8a-dimethyl-7-(1-methylvinyl)naphthalene

New Jersey Right To Know

[1R-(1 α ,7 β ,8 α)]-1,2,3,5,6,7,8,8a-octahydro- 4630-07-3 90 - 100 %
1,8a-dimethyl-7-(1-methylvinyl)naphthalene

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

SECTION 16. OTHER INFORMATION**Further information****NFPA:****HMIS III:**

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Abbreviations: ACGIH = American Conference of Governmental Industrial Hygienists. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act. CFR = Code of Federal Regulations. CPR = Controlled Products Regulations. DSL = Canadian Domestic Substance List. DOT = Department of Transportation. EINECS = European Inventory of New and Existing Chemical Substances. EPA = Environmental Protection Agency. HCS = Hazardous Communication Standard. HEPA = High Efficiency Particulate Air. HMIS = Hazardous Material Identification System. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IMDG = International Maritime Dangerous Good. NFPA = National Fire Protection Association. NIOSH = National Institute of Occupational Safety and Health. NJTSR = New Jersey Trade Secret Registry. NTP = National Toxicology Program. OSHA = Occupational Safety and Health Administration. SARA = Superfund Amendments and Reauthorization Act. TDG = Transportation of Dangerous Goods. TLV = Threshold Limit Value. TSCA = Toxic Substance Control Act. WHMIS = Workplace Hazardous Materials Information System.