

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Nootkatone 80

5015563

Version 1.0

Revision Date 07.03.2014

Print Date 25.03.2014

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Nootkatone 80

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

Use of the Substance/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 : sds.nutritionalproducts@dsm.com
Responsible/issuing person

1.4 Emergency telephone number

+41 62 866 2314

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

Classification (67/548/EEC, 1999/45/EC)

Irritant R43: May cause sensitisation by skin contact.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : 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:
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
Disposal:

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P501

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

Hazardous components which must be listed on the label:

4674-50-4

[4R-(4 α ,4 α ,6 β)]-4,4a,5,6,7,8-hexahydro-4,4a-dimethyl-6-(1-methylvinyl)naphthalen-2(3H)-one

2.3 Other hazards

None known.

3. Composition/information on ingredients

Brief description of the product : Substance

3.1 Substances

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
[4R-(4 α ,4 α ,6 β)]-4,4a,5,6,7,8-hexahydro-4,4a-dimethyl-6-(1-methylvinyl)naphthalen-2(3H)-one	4674-50-4 225-124-4	Xi; R43	Skin Sens. 1; H317	>= 80

4. First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
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.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No specific symptoms known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

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5. Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : None known.

5.3 Advice for firefighters

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

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.
Ensure adequate ventilation.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3 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.

6.4 Reference to other sections

For personal protection see section 8.
For disposal considerations see section 13.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national

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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.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

: Keep under inert gas.

Storage temperature : 10 - 15 °C

7.3 Specific end use(s)

Specific use(s) : not applicable

8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection : Glove material: butyl-rubber
: 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 : Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : clear liquid

Colour : yellow

Odour : citrous-like

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Odour Threshold	: No information available.
pH	: No data available
Flash point	: 110 °C
Evaporation rate	: not determined
Lower explosion limit	: not determined
Upper explosion limit	: not determined
Vapour pressure	: not determined
Relative vapour density	: not determined
Density	: 0,97 - 1,05 g/cm ³ (at 20 °C)
Water solubility	: practically insoluble
Solubility in other solvents	: Ethanol 95%: completely miscible
Partition coefficient: n-octanol/water	: log Pow ca. 4 (25 °C; calculated value) Information refers to the main component.
Ignition temperature	: not determined
Thermal decomposition	: No data available
Viscosity, dynamic	: not determined
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2 Other information

No data available

10. Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Possible incompatibility with materials listed under section 10.5.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Strong acids and strong bases
Oxidizing agents

10.6 Hazardous decomposition products

No decomposition if used as directed.

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11. Toxicological information

11.1 Information on toxicological effects

- Acute oral toxicity : LD50 (rat): > 5 000 mg/kg
Information refers to the main component. publicly available data
- Acute dermal toxicity : LD50 (rabbit): > 5 000 mg/kg
Information refers to the main component.
- Skin corrosion/irritation : Mild skin irritation (rabbit)
: No skin irritation (human, 10% solution)
- Respiratory or skin sensitisation : May cause sensitisation by skin contact.
- Genotoxicity in vitro : No data available
- Carcinogenicity : This information is not available.
- Reproductive toxicity : This information is not available.
- STOT - single exposure : The substance or mixture is not classified as specific target organ toxicant, single exposure.
- STOT - repeated exposure : NOAEL (gavage, rat) : 10 mg/kg bw/d
publicly available data
- Aspiration toxicity : No aspiration toxicity classification

12. Ecological information

12.1 Toxicity

No data is available on the product itself.

12.2 Persistence and degradability

- Biodegradability : Not readily biodegradable.
65 % (28 d)
publicly available data

12.3 Bioaccumulative potential

- Bioaccumulation
[4R-(4 α ,4a α ,6 β)]-
4,4a,5,6,7,8-hexahydro-4,4a-
dimethyl-6-(1-
methylvinyl)naphthalen-
2(3H)-one : Temperature: 25 °C
Bioconcentration factor (BCF): 428
Method: calculated value

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Partition coefficient: n-octanol/water : log Pow ca. 4 (25 °C ; calculated value)
Information refers to the main component.

12.4 Mobility in soil

Distribution among environmental compartments : No data available

12.5 Results of PBT and vPvB assessment

Assessment : not determined

12.6 Other adverse effects

Additional ecological information : There is no data available for this product.

13. Disposal considerations

13.1 Waste treatment methods

Product : 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.

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

14. Transport information

14.1 UN number

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.2 Proper shipping name

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.3 Transport hazard class

ADR

Not dangerous goods

RID

Not dangerous goods

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IMDG

Not dangerous goods

IATA

Not dangerous goods

14.4 Packing group

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.5 Environmental hazards

ADR

Not dangerous goods

RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.6 Special precautions for user

Not classified as dangerous in the meaning of transport regulations.

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

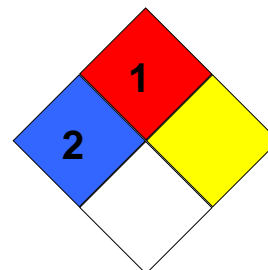
No data available

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

NFPA Classification

: Health hazard: 2
Fire Hazard: 1



15.2 Chemical Safety Assessment

This information is not available.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R43 May cause sensitisation by skin contact.

Full text of H-Statements referred to under sections 2 and 3.

H317 May cause an allergic skin reaction.

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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: 67/548/EEC= Dangerous Substances Directive. 1999/45/EC= Dangerous Preparations Directive. Regulation (EC) No. 1272/2008= Regulation on classification, labelling and packaging of substances and mixtures. DNEL= Derived No-Effect Level. PNEC= Predicted No-Effect Concentration. NFPA= National Fire Protection Association (USA). IATA= International Air Transport Association. IMDG= International Maritime Dangerous Goods. RID= International Rule for Transport of Dangerous Substances by Railway; ADR= European Agreement concerning the International Carriage of Dangerous Goods by Road. TWA= Time Weighted Average. STEL= Short term exposure limit.