

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



Isophytol Technical

0410934

Version 3.3

Revision Date 24.09.2014

Print Date 02.03.2018

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

1.1 Product identifier

Trade name : Isophytol Technical
REACH Registration Number : 01-2119615603-46-0000
Substance name : 3,7,11,15-tetramethylhexadec-1-en-3-ol
CAS-No. : 505-32-8

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

Use of the Substance/Mixture : Intermediate under strictly controlled conditions according to Article 17 or 18 of Regulation (EC) No. 1907/2006

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 irritation, Category 2	H315: Causes skin irritation.
Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 1	H410: Very toxic to aquatic life with long lasting effects.

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

Irritant	R38: Irritating to skin.
Dangerous for the environment	R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :  

Signal word : Warning

Hazard statements : H315 Causes skin irritation.
H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.

Hazardous components which must be listed on the label:
505-32-8 3,7,11,15-tetramethylhexadec-1-en-3-ol

2.3 Other hazards

None known.

3. Composition/information on ingredients

Brief description of the product : Substance
Molecular formula : C20-H40-O

3.1 Substances

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
3,7,11,15-tetramethylhexadec-1-en-3-ol	505-32-8 208-008-8 01-2119615603-46	Xi; R38 N; R50/53	Skin Irrit. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 90 - <= 100

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 : Immediately flush eye(s) with plenty of water.
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.

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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.

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 : Do not allow run-off from fire fighting to enter drains or water courses.

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.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

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

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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 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 : Protect against light.
Protect from humidity.
: Keep container tightly closed and dry.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage temperature : < 25 °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 case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
: In the case of vapour formation use a respirator with an approved filter.

Hand protection : Glove material: for example nitrile 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.

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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 : liquid, viscous
Colour : light yellow
Odour : slight, earthy
Odour Threshold : No information available.
pH : 6,7 (5,8 mg/l, 25 °C)
Melting point/range : < 25 °C
Boiling point/boiling range : 335 °C (at 1 013 hPa)
126,5 °C (at 8 hPa)
Flash point : 170 °C (ISO 2719)
Evaporation rate : not determined
Lower explosion limit : 0,3 %(V)
Upper explosion limit : 3,5 %(V)
Vapour pressure : < 0,001 hPa (at 20 °C)
0,07 hPa (at 100 °C)
Relative vapour density : not determined
Density : 0,8420 - 0,8445 g/cm³ (at 20 °C)
Water solubility : 5,8 mg/l (25 °C)
practically insoluble
Solubility in other solvents : various organic solvents: soluble
Partition coefficient: n-octanol/water : log Pow 8,8 (OECD Test Guideline 117)
Ignition temperature : 330 °C (at 1 021 hPa, DIN 51794)
Thermal decomposition : Not relevant
Viscosity, dynamic : 58,5 mPa.s (at 25 °C)
Explosive properties : Not explosive
Oxidizing properties : No data available

9.2 Other information

Molecular weight : 296,54 g/mol

10. Stability and reactivity

10.1 Reactivity

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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

Acids and bases
Strong oxidizing agents

10.6 Hazardous decomposition products

No decomposition if used as directed.

11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity	: LD50 (Rat): > 8 000 mg/kg
	: LD50 (Mouse): > 8 000 mg/kg
Skin corrosion/irritation	: Skin irritation (Rabbit)
Serious eye damage/eye irritation	: slight irritation (Rabbit) temporary redness
Respiratory or skin sensitisation	: Did not cause sensitization. (Guinea pig, OECD Test Guideline 406)
Genotoxicity in vitro	: not mutagenic (Ames test)
Genotoxicity in vivo	: not genotoxic (Mouse, Bone marrow, Oral, Mutagenicity (micronucleus test))
Carcinogenicity	: No indication for carcinogenicity known.
Reproductive toxicity	: NOAEL: 500 mg/kg bw/d (Rat, Oral, OECD Test Guideline 415)
Teratogenicity	: NOAEL: 500 mg/kg bw/d (Rat, Oral, OECD Test Guideline 415)
STOT - single exposure	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	: NOEL (Oral, Rat) : 250 mg/kg bw/d

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Subacute toxicity study (28 days)

Aspiration toxicity : No aspiration toxicity classification

Further information : May cause irritation of respiratory tract.

12. Ecological information

12.1 Toxicity

Toxicity to fish : Leuciscus idus (Golden orfe)
LC50 (96 h) > 10 000 mg/l
(nominal concentration)
(DIN 38412)
: LC0 (96 h) 10 000 mg/l

Toxicity to daphnia and other aquatic invertebrates : Daphnia magna (Water flea)
EC50 (48 h) 0,13 mg/l
(OECD Test Guideline 202)

Toxicity to algae : Desmodesmus subspicatus (green algae)
EC50 (72 h) > 500 mg/l
(nominal concentration)
: EC10 (72 h) > 500 mg/l
(nominal concentration)

Toxicity to bacteria : Pseudomonas putida
EC50 (0,5 h) > 10 000 mg/l
(nominal concentration)
(DIN 38412)

12.2 Persistence and degradability

Biodegradability : Readily biodegradable.
ca. 75 % (28 d)
(OECD Test Guideline 301F)

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water : log Pow 8,8 (OECD Test Guideline 117)

12.4 Mobility in soil

Distribution among environmental compartments : No data available

12.5 Results of PBT and vPvB assessment

Assessment : The substance does not fulfill the PBT criteria.
: The substance does not fulfill the vPvB criteria.

12.6 Other adverse effects

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

13. Disposal considerations**13.1 Waste treatment methods**

Product : 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.

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

14. Transport information**14.1 UN number**

ADR : 3082
RID : 3082
IMDG : 3082
IATA : 3082

14.2 Proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,7,11,15-tetramethylhexadec-1-en-3-ol)
RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,7,11,15-tetramethylhexadec-1-en-3-ol)
IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (3,7,11,15-tetramethylhexadec-1-en-3-ol)
IATA : Environmentally hazardous substance, liquid, n.o.s. (3,7,11,15-tetramethylhexadec-1-en-3-ol)

14.3 Transport hazard class

ADR : 9
RID : 9
IMDG : 9
IATA : 9

14.4 Packing group

ADR
Packaging group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
Tunnel restriction code : (E)
RID
Packaging group : III
Classification Code : M6
Hazard Identification Number : 90
Labels : 9
IMDG
Packaging group : III

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Labels : 9
EmS Number : F-A, S-F
IATA
Packing instruction (cargo aircraft) : 964
Packaging group : III
Labels : 9

14.5 Environmental hazards

ADR
Environmentally hazardous : yes

RID
Environmentally hazardous : yes

IMDG
Marine pollutant : yes

IATA
Environmentally hazardous : yes

14.6 Special precautions for user

No additional requirements.

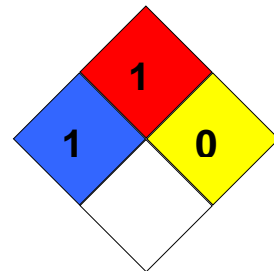
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : Not applicable

15. Regulatory information

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

NFPA Classification : Health hazard: 1
Fire Hazard: 1
Reactivity Hazard: 0



15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

16. Other information

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

R38 Irritating to skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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. WEL = Workplace Exposure Limit.