

Safety data sheet

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BASF Safety data sheet according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended from

time to time.

Date / Revised: 30.07.2024 Version: 4.0
Date / Previous version: 30.07.2024 Previous version: 3.0

Product: iso-Phytol R

(ID no. 30035164/SDS_GEN_GB/EN)

Date of print 08.10.2025

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

iso-Phytol R

Chemical name: 3,7,11,15-Tetramethylhexadec-1-en-3-ol

CAS Number: 505-32-8

REACH registration number: 01-2119457639-23-0000

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

Relevant identified uses: Chemical, Chemical for detergents, Chemical for soaps, detergents and cosmetic

1.3. Details of the supplier of the safety data sheet

Company: BASF SE 67056 Ludwigshafen GERMANY Contact address:
BASF plc
4th and 5th Floors, 2 Stockport Exchange
Railway Road, Stockport, SK1 3GG
UNITED KINGDOM

Telephone: +44 161 475 3000

E-mail address: product-safety-uk-and-ireland@basf.com

1.4. Emergency telephone number

International emergency number: Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

time to time.

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According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Skin Irrit. 2 H315 Causes skin irritation.
Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

M-factor acute: 1

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Pictogram:





Signal Word: Warning

Hazard Statement:

H315 Causes skin irritation. H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P273 Avoid release to the environment.

P280 Wear protective gloves.

Precautionary Statements (Response):

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P391 Collect spillage.

P332 + P313 If skin irritation occurs: Get medical attention.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste

collection point.

2.3. Other hazards

According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

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SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

3,7,11,15-Tetramethylhexadec-1-en-3-ol

CAS Number: 505-32-8 EC-Number: 208-008-8

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

3.2. Mixtures

Not applicable

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

4.3. Indication of any immediate medical attention and special treatment needed

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Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:

water spray, dry powder, alcohol-resistant foam, carbon dioxide

Unsuitable extinguishing media for safety reasons: water jet

5.2. Special hazards arising from the substance or mixture

Endangering substances: harmful vapours, carbon oxides

Advice: The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Cool endangered containers with water-spray.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures, see section 8. Ensure adequate ventilation. Do not breathe vapour/spray. Avoid contact with the skin, eyes and clothing.

6.2. Environmental precautions

Do not discharge into drains/surface waters/groundwater. Inform authorities in the event of product spillage to water courses or sewage systems.

6.3. Methods and material for containment and cleaning up

For small amounts: Contain with absorbent material (e.g. sand, silica gel, acid binder, general purpose binder, sawdust).

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

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SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Wear suitable protective clothing and eye/face protection. Avoid contact with the skin, eyes and clothing. Keep container tightly sealed.

Protection against fire and explosion:

Take precautionary measures against static discharges. Avoid all sources of ignition: heat, sparks, open flame.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep at temperature not exceeding 50°C. Keep container in a well-ventilated place. Do not keep the container sealed.

7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

No substance specific occupational exposure limits known.

PNEC

freshwater: 0.0002 mg/l

marine water: 0.00002 mg/l

STP: 10000 mg/l

sediment (freshwater): 0.224 mg/kg

soil: 0.079 mg/kg

sediment (marine water): 0.0224 mg/kg

A chemical safety assessment acc. to art. 14 of Regulation (EC) No 1907/2006 is not required for registered substances in quantities below 10 tonnes per year.

DNEL

No DNEL value available.

8.2. Exposure controls

time to time.

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Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6,

corresponding > 480 minutes of permeation time according to EN ISO 374-1):

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eve protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Avoid contact with skin. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form: liquid
Colour: colourless
Odour: flowery
pH value: 6.7

(0.0058 g/l, 25 °C)

Melting point:

not applicable

Boiling point: 320 °C Flash point: 174 °C

74 °C (ISO 2719)

Flammability: hardly combustible (derived from flash point)

Lower explosion limit:

For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15

°C below the flash point.

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Upper explosion limit:

For liquids not relevant for

classification and labelling.

230 °C Ignition temperature: (DIN 51794)

Vapour pressure: < 0.001 hPa

(20 °C) Literature data. 0.07 mbar (100 °C)

Density: 0.843 g/cm3 (ISO 2811-3)

(20 °C)

Relative density: approx. 0.844

(20 °C)

Relative vapour density (air):10.2 (calculated)

(20 °C)

Heavier than air.

Solubility in water: (other)

> 5.8 mg/l (25 °C)

Solubility (qualitative) solvent(s): organic solvents

soluble

Partitioning coefficient n-octanol/water (log Kow): 8.8 (measured)

(25 °C)

Self ignition: Based on its structural properties the

product is not classified as self-

igniting.

Test type: Spontaneous self-

ignition at room-temperature.

Thermal decomposition: 225 °C

Viscosity, dynamic: 76.3 mPa.s (OECD Guideline 114)

(20 °C)

Explosion hazard: not explosive (other) Fire promoting properties: not fire-propagating (other)

9.2. Other information

pKA:

The substance does not dissociate.

Adsorption/water - soil: log KOC: 4,296 (calculated)

Adsorption to solid soil phase is

expected.

Surface tension:

Based on chemical structure, surface

activity is not to be expected.

Grain size distribution: The substance / product is marketed or used in a non solid or

granular form.

296.54 g/mol Molar mass:

SECTION 10: Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

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Corrosion to metals: No corrosive effect on metal.

Formation of Remarks: Forms no flammable gases in the

flammable gases: presence of water.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

Strong exothermic reaction.

10.4. Conditions to avoid

See SDS section 7 - Handling and storage.

10.5. Incompatible materials

Substances to avoid: acids, bases

10.6. Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Experimental/calculated data:

LD50 rat (oral): > 5,400 mg/kg (BASF-Test)

LD50 rabbit (dermal): > 5,000 mg/kg (other)

Literature data.

Irritation

Assessment of irritating effects:

Skin contact causes irritation. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Irritant. (BASF-Test)

time to time.

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Serious eye damage/irritation rabbit: non-irritant (BASF-Test)

Respiratory/Skin sensitization

Assessment of sensitization:

Animal studies do not fully exclude a skin sensitizing potential.

Experimental/calculated data:

Skin painting test guinea pig: ambiguous (other)

Guinea pig maximization test guinea pig: ambiguous (OECD Guideline 406)

Literature data.

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in studies with mammals.

Carcinogenicity

Assessment of carcinogenicity:

No data available concerning carcinogenic effects.

Reproductive toxicity

Assessment of reproduction toxicity:

Animal studies gave no indication of a fertility impairing effect at doses which were not toxic to the parental animals.

Developmental toxicity

Assessment of teratogenicity:

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on available data, the classification criteria are not met.

time to time.

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Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No substance-specific organtoxicity was observed after repeated administration to animals.

Aspiration hazard

No aspiration hazard expected.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) > 10,000 mg/l, Leuciscus idus (DIN 38412 Part 15, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:

EC50 (48 h) 0.2 mg/l, Daphnia magna (Directive 84/449/EEC, C.2, semistatic)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. The details of the toxic effect relate to the nominal concentration.

Aquatic plants:

EC50 (72 h) > 500 mg/l (growth rate), Scenedesmus subspicatus (DIN 38412 Part 9, static) The details 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.

Microorganisms/Effect on activated sludge:

EC10 (17 h) > 10,000 mg/l, Pseudomonas putida (DIN 38412 Part 27 (draft), aerobic)

The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. The details of the toxic effect relate to the nominal concentration.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

Study scientifically not justified.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):

Readily biodegradable (according to OECD criteria).

Elimination information:

time to time.

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approx. 70 - 80 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EWG, C.4-D) (aerobic, activated sludge, domestic)

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.

12.4. Mobility in soil

Assessment transport between environmental compartments:

Volatility: The substance will slowly evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is expected.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative). Self classification

12.6. Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Observe national and local legal requirements.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

SECTION 14: Transport Information

Land transport

ADR

UN number or ID number: UN3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains 3,7,11,15-TETRAMETHYLHEXADEC-1-EN-3-OL)

time to time.

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Transport hazard class(es): 9, EHSM

Packing group: III Environmental hazards: yes

Special precautions for

user: None known

RID

UN number or ID number: UN3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains 3,7,11,15-TETRAMETHYLHEXADEC-1-EN-3-OL)

Transport hazard class(es): 9, EHSM

Packing group:

Environmental hazards: yes

Special precautions for None known

user:

Inland waterway transport

ADN

UN number or ID number: UN3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains 3,7,11,15-TETRAMETHYLHEXADEC-1-EN-3-OL)

Transport hazard class(es): 9, EHSM

Packing group: III Environmental hazards: yes

Special precautions for None known

user:

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

UN number or ID number: UN 3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains 3,7,11,15-TETRAMETHYLHEXADEC-1-EN-3-OL)

Transport hazard class(es): 9, EHSM

Packing group: III Environmental hazards: yes

Marine pollutant: YES

Special precautions for

user:

time to time.

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Air transport

IATA/ICAO

UN number or ID number: UN 3082

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains 3,7,11,15-TETRAMETHYLHEXADEC-1-EN-3-OL)

Transport hazard class(es): 9, EHSM

Packing group:

Environmental hazards: yes

Special precautions for None known

user:

14.1. UN number or ID number

See corresponding entries for "UN number or ID number" for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

14.3. Transport hazard class(es)

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for "Packing group" for the respective regulations in the tables above.

14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

14.7. Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information

Product may be shipped as non-hazardous in suitable packages containing a net quantity of 5 L or less under the provisions of various regulatory agencies: ADR, RID, ADN: Special Provision 375; IMDG: 2.10.2.7; IATA: A197; TDG: Special Provision 99(2); 49CFR: §171.4 (c) (2) and also the Special Provision 375 in Appendix B which is regulated in China "Regulations Concerning Road Transportation of Dangerous Goods Part 3: Index of dangerous goods name and transportation requirements" (JT/T 617.3)

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This product is subject to the most recent edition of "The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations" and their amendments (United Kingdom).

SECTION 15: Regulatory Information

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

Prohibitions, Restrictions and Authorizations

UK REACH SI, Annex XVII, Marketing and Use Restrictions Number on List: 3

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU): List entry in regulation: E1

Classification applies for standard conditions of temperature and pressure.

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

This product may be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments if specific threshold tonnages are exceeded (United Kingdom).

15.2. Chemical Safety Assessment

Chemical Safety Assessment not required

SECTION 16: Other Information

Assessment of the hazard classes according to UN GHS criteria (most recent version)

Skin Corr./Irrit. 2 Aquatic Acute 1 Aquatic Chronic 1

M-factor acute: 1

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

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Full text of the classifications, including the hazard classes and the hazard statements, if mentioned

in section 2 or 3:

Skin Irrit. Skin irritation

Aquatic Acute Hazardous to the aquatic environment - acute Aquatic Chronic Hazardous to the aquatic environment - chronic

H315 Causes skin irritation. H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value, MARPOL = The International Convention for the Prevention of Pollution from Ships, NEN = Dutch Norm, NOEC = No Observed Effect Concentration, OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.