

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier**

Trade name	NAFOL 1214
Unique Formula Identifier (UFI):	0X61-10RY-700P-F7T2

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

Use of the Substance/Mixture	Solvent, raw material for lubricants and lubricant additives, raw material for synthesis processes in the chemical industry, raw material for textile auxiliary agents, raw material for washing and cleaning agents, Industrial use
Uses advised against	

1.3 Details of the supplier of the safety data sheet

Company	Sasol Germany GmbH Anckelmannsplatz 1 20537 Hamburg Germany
	Telephone: +49 40 63684-1000 Telefax: +49 40 63684-3700
Information (Product safety)	E-mail: msds-info.germany@de.sasol.com

1.4 Emergency telephone number

Emergency telephone number	+44 1235 239670	Europe
	+44 1235 239671	Middle East, Africa
	+1 215 207 0061	North America, South America
	+65 3158 1074	Asia Pacific Region
	+44 1865 407333	Global (english)

SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Eye irritation Category 2	Causes serious eye irritation.
Short-term (acute) aquatic hazard Category 1	Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 1	Very toxic to aquatic life with long lasting effects.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Hazard pictograms**Signal word**

Warning

Hazard statements

H319

Causes serious eye irritation.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statements

P264

Wash skin thoroughly after handling.

P273

Avoid release to the environment.

P280

Wear eye protection/ face protection.

P337 + P313

If eye irritation persists: Get medical advice/ attention.

P391

Collect spillage.

P501

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

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures**

This product is a mixture in the meaning of regulation (EC) 1907/2006.

COMPONENTS TO BE NAMED IN ACCORDANCE WITH REGULATION (EC) 1907/2006 AS WELL AS OTHER HAZARDOUS INGREDIENTS AND CONTAINED SUBSTANCES WITH WORK PLACE LIMIT VALUES**dodecan-1-ol****content:** >= 50 - < 70 %**component type:** Active ingredient**EC-No.:** 203-982-0**Index-No.:****CAS-No.:** 112-53-8**REACH No.:** 01-2119485976-15-0000**Substance name (REACH / CLP):** dodecan-1-ol**Classification (Regulation (EC) No 1272/2008)**

Eye Irrit. 2

H319

Aquatic Acute

1

H400

Aquatic Chronic

2

H411

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

M-Factor (Acute aquatic toxicity: 1

tetradecanol**content:** >= 30 - < 50 %**component type:** Active ingredient**EC-No.:** 204-000-3**Index-No.:****CAS-No.:** 112-72-1**REACH No.:** 01-2119485910-33-0000**Substance name (REACH / CLP):** tetradecanol**Classification (Regulation
(EC) No 1272/2008)**

Eye Irrit. 2

H319

Aquatic Chronic

1

H410

M-Factor (Chronic aquatic toxicity: 1

decan-1-ol**content:** >= 1 - < 2.5 %**component type:** Impurity**EC-No.:** 203-956-9**Index-No.:****CAS-No.:** 112-30-1**Classification (Regulation
(EC) No 1272/2008)**

Eye Irrit. 2

H319

Aquatic Chronic

3

H412

For information on ingredients listed on the candidate list (Candidate List of Substances of Very High Concern for Authorisation) or in the list of substances subject to authorization (Annex XIV of Regulation (EC) No 1907/2006), see section 15.1. of this data sheet.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures****General advice**

If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately.

If inhaled

Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician.

In case of skin contact

Wash off with plenty of water.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Consult a physician. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed**Symptoms**

No information available.

Risks

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media**Suitable extinguishing media** Water spray, Dry powder, Foam, Carbon dioxide (CO₂)**Unsuitable extinguishing media** High volume water jet**5.2 Special hazards arising from the substance or mixture****Specific hazards during firefighting** Dangerous gases or fumes may occur in case of fire.**5.3 Advice for firefighters****Special protective equipment for firefighters** Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.**Further information** Cool closed containers exposed to fire with water spray. Closed container may rupture if strongly heated. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures**Personal precautions** Use personal protective equipment.**Special precautions** Forms slippery/greasy layers with water. Spilling onto the container's outside will make container slippery. Danger of slipping after spill or leakage.**6.2 Environmental precautions****Environmental precautions** Do not let product enter drains.
Do not flush into surface water.
Avoid subsoil penetration.
Do not allow material to contaminate ground water system.**6.3 Methods and materials for containment and cleaning up****Methods for cleaning up** Pick up and arrange disposal without creating dust. The material taken up must be disposed of in accordance with regulations.**6.4 Reference to other sections**

For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling**Advice on safe handling** Wear personal protective equipment.

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Advice on protection against fire and explosion

No special protective measures against fire required.

Fire-fighting class

B: Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers

No special storage conditions required.

Further information on storage conditions

Protect from frost, heat and sunlight.

Other data

Stable at normal ambient temperature and pressure.

7.3 Specific end use(s)
Specific use(s)

This information is not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
COMPONENTS WITH WORKPLACE CONTROL PARAMETERS
National occupational exposure limits

Control parameters / Substance name	Typ	Control parameters	Update	Basis
dodecan-1-ol	AGW AGW	155 mg/m ³ 20 ppm	2013-09-19 2013-09-19	Germany. Occupational Exposure Limit Values - TRGS 900 (AGW)
	AGS: Committee on Hazardous Substances (Germany)Sum of vapor and aerosols.			
tetradecanol	AGW AGW	178 mg/m ³ 20 ppm	2013-09-19 2013-09-19	Germany. Occupational Exposure Limit Values - TRGS 900 (AGW)
	AGS: Committee on Hazardous Substances (Germany)Sum of vapor and aerosols.			
hexadecan-1-ol	AGW AGW	200 mg/m ³ 20 ppm	2013-09-19 2013-09-19	Germany. Occupational Exposure Limit Values - TRGS 900 (AGW)
	AGS: Committee on Hazardous Substances (Germany)Sum of vapor and aerosols.			
decan-1-ol	AGW AGW	66 mg/m ³ 10 ppm	2019-03-29 2019-03-29	Germany. Occupational Exposure Limit Values - TRGS 900 (AGW)
	Y: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child Committee on Hazardous Substances (Germany)Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (MAK Commission)Sum of vapor and aerosols.			

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Contains no substances with occupational exposure limit values.

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

No data available

DERIVED NO EFFECT LEVEL (DNEL)

Substance name: dodecan-1-ol			
End Use	Exposure routes	Value	Note
Workers	dermal, Acute/short-term exposure - systemic effects		No hazard identified
	Inhalation, Acute/short-term exposure - systemic effects		No hazard identified
	dermal, Acute/short-term exposure - local effects		No hazard identified
	Inhalation, Acute/short-term exposure - local effects		No hazard identified
	dermal, long-term exposure - systemic effects	89 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	313 mg/m3	
	dermal, long-term exposure - local effects		No hazard identified
	Inhalation, long-term exposure - local effects	155 mg/m3	
Consumers	dermal, Acute/short-term exposure - systemic effects		No hazard identified
	Inhalation, Acute/short-term exposure - systemic effects		No hazard identified
	Oral, Acute/short-term exposure - systemic effects		No hazard identified
	dermal, Acute/short-term exposure - local effects		No hazard identified
	Inhalation, Acute/short-term exposure - local effects		No hazard identified
	dermal, long-term exposure - systemic effects	44.5 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	77 mg/m3	
	Oral, long-term exposure - systemic effects	44.5 mg/kg	based on body weight and day
	dermal, long-term exposure - local effects		Not relevant / Not applicable
	Inhalation, long-term exposure - local effects		No hazard identified
	Eye contact,		Low hazard
Workers	Eye contact,		Low hazard

Substance name: tetradecanol

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

End Use	Exposure routes	Value	Note
Workers	Inhalation, long-term exposure - systemic effects	313 mg/m3	
	Inhalation, Acute/short-term exposure - systemic effects		No hazard identified
	Inhalation, long-term exposure - local effects	178 mg/m3	
	Inhalation, Acute/short-term exposure - local effects		No hazard identified
	dermal, long-term exposure - systemic effects	89 mg/kg	based on body weight and day
	dermal, Acute/short-term exposure - systemic effects		No hazard identified
	dermal, long-term exposure - local effects		No hazard identified
	dermal, Acute/short-term exposure - local effects		No hazard identified
	Eye contact,		Low hazard
Consumers	Inhalation, long-term exposure - systemic effects	77 mg/m3	
	Inhalation, Acute/short-term exposure - systemic effects		No hazard identified
	Inhalation, long-term exposure - local effects		No hazard identified
	Inhalation, Acute/short-term exposure - local effects		No hazard identified
	dermal, long-term exposure - systemic effects	44.4 mg/kg	based on body weight and day
	dermal, Acute/short-term exposure - systemic effects		No hazard identified
	dermal, long-term exposure - local effects		No hazard identified
	dermal, Acute/short-term exposure - local effects		No hazard identified
	Oral, long-term exposure - systemic effects	44.4 mg/kg	based on body weight and day
	Oral, Acute/short-term exposure - systemic effects		No hazard identified
	Eye contact,		Low hazard

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance name: dodecan-1-ol		
Environmental Compartment	Value	Note
Fresh water	0.001 mg/l	
Marine water	0 mg/l	
Sewage treatment plant		No hazard identified
Fresh water sediment	0.666 mg/kg	based on dry weight
Marine sediment	0.067 mg/kg	based on dry weight
Soil	0.132 mg/kg	based on dry weight
Air		No hazard identified
food		Not relevant / Not applicable

Substance name: tetradecanol		
Environmental Compartment	Value	Note
Fresh water	0.00063 mg/l	
Marine water	0.000063 mg/l	
Fresh water sediment	2.14 mg/kg	based on dry weight
Marine sediment	0.214 mg/kg	based on dry weight
Sewage treatment plant		No hazard identified
Soil	0.428 mg/kg	based on dry weight
Air		No hazard identified
food		No hazard identified

8.2 Exposure controls

ENGINEERING MEASURES

Provide sufficient air exchange and/or exhaust in work rooms.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection

No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.

Respiratory protection

No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a combined filter (e.g. A-P2 or ABEK-P2), in compliance with EN 141.

Hand protection

Material: Nitrile rubber/nitrile latex
Break through time: >= 480 min
Glove thickness: 0.35 mm

Material: butyl-rubber

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Break through time: ≥ 480 min
Glove thickness: 0.5 mm

The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

Unsuitable material:
Natural rubber/natural latex

Eye protection	Tightly fitting safety goggles
Skin and body protection	Protective suit
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs.
Protective measures	Avoid contact with eyes. Wear suitable gloves and eye/face protection.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice	Do not let product enter drains. Do not flush into surface water. Avoid subsoil penetration. Do not allow material to contaminate ground water system.
-----------------------	---

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state	Physical state: solid; 20 °C; 1,013 hPa Shape: paste
Colour	colourless
Odour	characteristic
Odour Threshold	No data available
Solidification / Setting point	22 - 25 °C
Boiling point/boiling range	ca. 255 - 305 °C
Flammability	No data available
Upper explosion limit	Not applicable Justification: Solid
Lower explosion limit	Not applicable Justification: Solid
Flash point	ca. 130 °C; DIN 51758

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Auto-ignition temperature	ca. 240 °C
Decomposition temperature	Stable under normal conditions.
pH	Justification:, Not applicable, insoluble
Viscosity	
Viscosity, dynamic	ca. 10 - 11 mPas; 40 °C
Solubility(ies)	
Water solubility	insoluble
Partition coefficient: n-octanol/water	not applicable (mixture)
Vapour pressure	ca. < 1.000 hPa; 20 °C
Relative density	No data available
Density	ca.0.8 g/cm ³ ; 40 °C; DIN 51757
Relative vapour density	Not applicable, Justification: Solid

9.2 Other information

Explosives	Constituents do not contain chemical groups associated with explosivity.
Oxidizing properties	not expected based on structure and functional groups
Self-ignition	Not applicable solid with a melting point < 160°C
Evaporation rate	Not relevant / Not applicable Justification: Solid

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity**

Note	Stable at normal ambient temperature and pressure.
------	--

10.2 Chemical stability

Note	No decomposition if stored and applied as directed.
------	---

10.3 Possibility of hazardous reactions

Hazardous reactions	Hazardous decomposition products formed under fire conditions.
---------------------	--

10.4 Conditions to avoid

Conditions to avoid	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.
---------------------	---

10.5 Incompatible materials to avoid**10.6 Hazardous decomposition products**

Hazardous decomposition products	No decomposition if stored and applied as directed.
Thermal decomposition	Stable under normal conditions.

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Not classified based on available information.

Acute oral toxicity*dodecan-1-ol:*

LD50 Rat: > 2,000 mg/kg; OECD Test Guideline 401

Symptoms: No adverse effects
(literature value)*tetradecanol:*LD50 Rat: > 5,000 mg/kg
(literature value)**Acute inhalation toxicity***dodecan-1-ol:*

LC50 Rat: > 71 mg/l; 1 h

Target Organs: Lungs

Symptoms: Salivation, Drowsiness, Loss of balance, Shortness of breath

The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

Test substance: Decan-1-ol

tetradecanol:

LC50 Rat: > 1.5 mg/l; 1 h

Test atmosphere: vapour
(literature value)**Acute dermal toxicity***dodecan-1-ol:*

LD50 Rabbit: > 5,000 mg/kg;

tetradecanol:

LD50 Rabbit: > 5,000 mg/kg;

Target Organs: Skin

Symptoms: Local irritation
(literature value)**Skin corrosion/irritation**

Not classified based on available information.

Skin irritation*dodecan-1-ol:*Human: No skin irritation; OECD Test Guideline 404
(literature value)*tetradecanol:*Human: No skin irritation
(literature value)**Serious eye damage/eye irritation**

Causes serious eye irritation.

Eye irritation*dodecan-1-ol:*

Rabbit: irritating; OECD Test Guideline 405

*tetradecanol:*Rabbit: Irritation to eyes, reversing after 7 to 21 days; OECD Test Guideline 405
(literature value)**Skin sensitisation / Respiratory sensitisation**

Skin contact: Not classified based on available information.

Inhalation: Not classified based on available information.

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Sensitisation*dodecan-1-ol:*

Maximisation Test Guinea pig: not sensitizing; OECD Test Guideline 406 (literature value)
Based on available data, the classification criteria are not met.

dodecan-1-ol:

Respiratory sensitisation :
No data available

tetradecanol:

Maximisation Test Guinea pig: Not a skin sensitizer.; OECD Test Guideline 406 (literature value)

tetradecanol:

Respiratory sensitisation :
No data available

Germ cell mutagenicity

Not classified based on available information.

Genotoxicity in vitro*dodecan-1-ol:*

In vitro tests did not show mutagenic effects (literature value)
Category approach

tetradecanol:

In vitro tests did not show mutagenic effects (literature value)
Category approach

Genotoxicity in vivo*dodecan-1-ol:*

In vivo tests did not show mutagenic effects (literature value)
Category approach

tetradecanol:

In vivo tests did not show mutagenic effects (literature value)
Category approach

Germ cell mutagenicity - Assessment*tetradecanol:*

In vitro tests did not show mutagenic effects
In vivo tests did not show mutagenic effects

Carcinogenicity

Not classified based on available information.

Carcinogenicity*dodecan-1-ol:*

Animal testing did not show any carcinogenic effects. (literature value)

tetradecanol:

Animal testing did not show any carcinogenic effects. (literature value)

Carcinogenicity - Assessment*tetradecanol:*

Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Not classified based on available information.

Effects on fertility*dodecan-1-ol:*

Rat; Oral
No toxicity to reproduction

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Effects on foetal development	(literature value)
	<i>tetradecanol</i> : Rat; Oral; OECD Test Guideline 422 No toxicity to reproduction
	(literature value) Category approach
	<i>dodecan-1-ol</i> : Rat; Oral; OECD Test Guideline 422 Did not show teratogenic effects in animal experiments.
Reproductive toxicity - Assessment	(literature value)
	<i>tetradecanol</i> : Rat; Oral Did not show teratogenic effects in animal experiments.
	Category approach (literature value)
	<i>tetradecanol</i> : No toxicity to reproduction Did not show teratogenic effects in animal experiments.

STOT - single exposure

Not classified based on available information.

Assessment	<i>dodecan-1-ol</i> : The substance or mixture is not classified as specific target organ toxicant, single exposure.
	<i>tetradecanol</i> : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Not classified based on available information.

Assessment	<i>dodecan-1-ol</i> : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
	<i>tetradecanol</i> : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Repeated dose toxicity	<i>dodecan-1-ol</i> : Rat; oral feed; 56 days NOAEL: 2,000 mg/kg (based on body weight and day); OECD Test Guideline 422 (literature value)
	<i>tetradecanol</i> : Rat; oral feed; 90-day NOAEL: 3,548 mg/kg (based on body weight and day) (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Alcohols, C14-15- branched and linear

Aspiration hazard

Not classified based on available information.

Aspiration toxicity	<i>dodecan-1-ol</i> :
----------------------------	-----------------------

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Not applicable

tetradecanol:

Not applicable

11.2 Information on other hazards**Endocrine disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information*dodecan-1-ol:*

Toxicokinetics

The substance is poorly absorbed via skin.

The substance is metabolised and excreted.

tetradecanol:

Toxicokinetics

The substance is poorly absorbed via skin.

The substance is metabolised and excreted.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity****Toxicity to fish***dodecan-1-ol:*

LC50 (96 h) Pimephales promelas (fathead minnow): > 1 - 10 mg/l ; flow-through test; US EPA 1975 (literature value)

tetradecanol:

Oncorhynchus mykiss (rainbow trout) ; semi-static test; OECD Test Guideline 203
In the range of water solubility not toxic under test conditions.
(literature value)

Toxicity to fish - Chronic toxicity*dodecan-1-ol:*

study scientifically unjustified

tetradecanol:

study scientifically unjustified

Toxicity to daphnia and other aquatic invertebrates*dodecan-1-ol:*

EC50 (48 h) Daphnia magna (Water flea): > 0.1 - 1 mg/l ; static test; OECD Test Guideline 202
(literature value)

tetradecanol:

Daphnia magna (Water flea) ; semi-static test; OECD Test Guideline 202
In the range of water solubility not toxic under test conditions.
(literature value)

Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity*dodecan-1-ol:*

EC10 (21 d) Daphnia magna (Water flea): 0.013 mg/l; reproduction rate; semi-static test; OECD Test Guideline 211
(literature value)

tetradecanol:

EC10 (21 d) Daphnia magna (Water flea): 0.0063 mg/l; reproduction rate; semi-static test; OECD Test Guideline 211
(literature value)

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Toxicity to aquatic plants*dodecan-1-ol:*

ErC50 (72 h) *Desmodesmus subspicatus* (green algae): > 0.1 - 1 mg/l ; static test;
OECD Test Guideline 201; (literature value)

dodecan-1-ol:

EC10 (72 h) *Desmodesmus subspicatus* (green algae): 0.27 mg/l ; static test;
OECD Test Guideline 201; (literature value)

tetradecanol:

Desmodesmus subspicatus (green algae) ; Growth rate; static test; In the range of
water solubility not toxic under test conditions.
(literature value)

M-Factors*dodecan-1-ol:*

M-Factor (Acute aquatic toxicity): 1

tetradecanol:

M-Factor (Chronic aquatic toxicity)1

1

Toxicity to bacteria*dodecan-1-ol:*

EC0 (30 min) *Pseudomonas putida*: > 10,000 mg/l; Respiration inhibition; DIN
38412
(literature value)
Category approach

tetradecanol:

The substance is not to be considered to be inhibitory to bacteria.
Category approach
(literature value)

Toxicity to soil dwelling organisms*dodecan-1-ol:*

No data available

tetradecanol:

LC50 (72 h) *Caenorhabditis elegans*, Worm (Nematoda): > 1,000 mg/kg; mortality
(literature value)

tetradecanol:

EC50 (7 d) *Folsomia candida*, Arthropod (Collembola): 530 mg/kg; Immobilization
(literature value)

Plant toxicity*tetradecanol:*

No data available

12.2 Persistence and degradability**Biodegradability***dodecan-1-ol:*

Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301D
(literature value)

dodecan-1-ol:

Biodegradable; > 60 %; 56 d; anaerobic
(literature value)
Category approach

tetradecanol:

Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301B
(literature value)

tetradecanol:

Biodegradable; > 60 %; 56 d; anaerobic
Category approach
(literature value)

12.3 Bioaccumulative potential**Bioaccumulation***dodecan-1-ol:*

Fish; Bioconcentration factor (BCF): < 500; QSAR

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Bioaccumulation is unlikely.

tetradecanol:

Fish; Bioconcentration factor (BCF): < 1,000; QSAR

Bioaccumulation is unlikely.

(literature value)

12.4 Mobility in soil**Distribution among
environmental compartments***dodecan-1-ol:*

Adsorption/Soil; Koc: 17980; log Koc: 4.25; calculated

immobile

strong adsorption to soil

The substance and its relevant degradation products decompose rapidly.

*tetradecanol:*Adsorption/Soil/Sewage sludge; Koc: 33983; log Koc: 4.53; OECD Test Guideline
121

(literature value)

immobile

strong adsorption to soil

The substance and its relevant degradation products decompose rapidly.

12.5 Results of PBT and vPvB assessment**Results of PBT assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Results of PBT assessment*dodecan-1-ol:*

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

This substance is not considered to be very persistent and very bioaccumulating (vPvB).

tetradecanol:

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Endocrine disrupting properties**Endocrine disrupting potential**

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects**Additional ecological
information***dodecan-1-ol:*

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

tetradecanol:

Very toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Product**

Can be incinerated, when in compliance with local regulations.

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

Contaminated packaging

Empty remaining contents.

Waste Code

A waste code in accordance with the European Waste Catalogue (EWC) may not be assigned to this product since it admits of a classification only when the consumer uses it for some purpose.
The waste code must be determined in agreement with the regional waste disposal authority or company.

SECTION 14: TRANSPORT INFORMATION**14.1 UN number or ID number**

ADR	3077
RID	3077
ADN	3077
IMDG	3077
ICAO/IATA	3077

14.2 UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MOLTEN (tetradecanol, MOLTEN)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MOLTEN (tetradecanol, MOLTEN)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MOLTEN (tetradecanol, MOLTEN)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MOLTEN (tetradecanol, MOLTEN)
ICAO/IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., MOLTEN (tetradecanol, MOLTEN)

14.3 Transport hazard class(es)

ADR	9
RID	9
ADN	9
IMDG	9
ICAO/IATA	9

14.4 Packing group

ADR	III
RID	III
ADN	III
IMDG	III
ICAO/IATA	III

14.5 Environmental hazards

ADR	Environmentally hazardous	yes
RID	Environmentally hazardous	yes
ADN	Environmentally hazardous	yes
IMDG	Marine pollutant	yes
ICAO/IATA	Environmentally hazardous	yes

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

14.6 Special precautions for user

ADR	Hazard Identification Number	90
	Labels	9
	Tunnel restriction code	(-)
IMDG	Labels	9
	EmS Number 1	F-A
	EmS Number 2	S-F
ICAO/IATA	Labels	9

14.7 Maritime transport in bulk according to IMO instruments

Remarks	No information available.
---------	---------------------------

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU PIC: Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals

Not applicable

EU SVHC: REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Not applicable

EU. REACH-Annex XIV: REACH - List of substances subject to authorisation (Annex XIV)

Not applicable

EC 1005/2009: Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

Not applicable

EU POP: Regulation (EU) 2019/1021 on persistent organic pollutants (recast)

Not applicable

UK. REACH Annex XIV: UK REACH List of substances subject to authorisation (Annex XIV)

Not applicable

UK SVHC: UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation

Not applicable

GB POPs: The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)

Not applicable

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)

Not applicable

Legislation on the control of major-accident hazards involving dangerous substances**Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.**

list entry in the directive:: ENVIRONMENTAL HAZARDS; E1

Qualifying quantity 1: 100 t; Qualifying quantity 2: 200 t;

Notification status

Australian Inventory of Industrial Chemicals	ZAU_AIIC	listed (product or constituents are listed)
Canadian Domestic Substances List (DSL)	DSL	listed (product or constituents are listed)
Switzerland. Consolidated Inventory (based on EU-EINECS and EU-NLP)	CH INV	listed (product or constituents are listed)
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	listed (product or constituents are listed)
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	listed (product or constituents are listed)
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC	listed (product or constituents are listed)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	listed (product or constituents are listed)
Taiwan Chemical Substance Inventory (TCSI)	ZTW_INV	listed (product or constituents are listed)
United States TSCA Inventory	TSCA	listed (product or constituents are listed)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical safety assessment**dodecan-1-ol**

A Chemical Safety Assessment has been carried out for this substance.

tetradecanol

A Chemical Safety Assessment has been carried out for this substance.

NAFOL 1214

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

SECTION 16: OTHER INFORMATION**Full text of H-Statements referred to under sections 2 and 3.**

H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety datasheet sections which have been updated:

1. Identification of the substance/mixture and of the company/undertaking
2. Hazards identification
3. Composition/information on ingredients
4. First aid measures
9. Physical and chemical properties
11. Toxicological information
12. Ecological information
15. Regulatory information
16. Other information

Further information:

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.
This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Key or legend to abbreviations and acronyms used in the safety data sheet

ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
BCF	Bioconcentration factor
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC...	Effect concentration ... %
ENCS	Existing Notified Chemical Substances (Japan)
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
KECI	Korea Existing Chemicals Inventory
LC...	Lethal Concentration, ...%
LD...	Lethal Dose, ...%
MARPOL	International Convention for the Prevention of Pollution From Ships
NDSL	Non-Domestic Substances List
NOAEL	no observable adverse effect level
NOEL/NOEC	No Observed-effect level/concentration
NZIoC	New Zealand Inventory of Chemicals
OECD	Organisation for Economic Co-operation and Development

**NAFOL 1214**

Version: 11.00

Date of first issue: 2001/10/01

Revision Date: 2023/07/25

Date of last issue: 2021/12/11

PBT	persistent, bioaccumulative, toxic
PICCS	Philippine Inventory of Chemicals and Chemical Substances
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises dangereuses
TG	Test Guideline
TRGS	Technische Regeln für Gefahrstoffe
TSCA	Toxic Substances Control Act
vPvB	very persistent, very bioaccumulative
WGK	Wassergefährdungsklasse

Annex

Attachments to the safety data sheet and/or lists of the identified uses for the listed substances can be downloaded using the internet links below.

dodecan-1-ol

http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000024824_EN_01.pdf

tetradecanol

http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000024825_EN_01.pdf
