

**NAFOL 1620**

Version: 6.07

Revision Date 10.12.2018

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier****Trade name** NAFOL 1620**1.2 Relevant identified uses of the substance or mixture and uses advised against****Use** Industrial use  
raw material for washing and cleaning agents  
raw material for textile auxiliary agents  
raw material for synthesis processes in the chemical industry  
raw material for lubricants and lubricant additives  
anti-foaming agent**Uses advised against****1.3 Details of the supplier of the safety data sheet****Company** SASOL Germany GmbH  
Anckelmannsplatz 1  
20537 HamburgTelephone: +49 40 63684-1000  
Telefax: +49 40 63684-3700**Information (Product safety):** Telephone: + 49 (0) 23 65 - 49 47 05  
Telefax: + 49 (0) 23 65 - 49 92 40**E-mail address** msds-info.germany@de.sasol.com**1.4 Emergency telephone number****Emergency telephone number** + 49 (0) 5 51 - 1 92 40 (GIZ-Nord Poisons Centre)**SECTION 2: HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Long-term (chronic) aquatic hazard Category 3 Harmful to aquatic life with long lasting effects.

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

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P273 Avoid release to the environment.

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

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### 2.3 Other hazards

None known.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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

### CHEMICAL CHARACTERIZATION

Alcohol blend, C16-20

#### Hexadecan-1-ol

EC-No.: 253-149-0                      Index-No.:  
 REACH No.: 01-2119485905-24-0000  
 Substance name (REACH / CLP): hexadecan-1-ol

component type: Active ingredient

CAS-No.: 36653-82-4

#### Octadecan-1-ol

EC-No.: 204-017-6                      Index-No.:  
 REACH No.: 01-2119485907-20-0000  
 Substance name (REACH / CLP): octadecan-1-ol

component type: Active ingredient

CAS-No.: 112-92-5

#### Icosan-1-ol

EC-No.: 211-119-4                      Index-No.:  
 REACH No.: 01-2119485909-16-0000  
 Substance name (REACH / CLP): icosan-1-ol

component type: Active ingredient

CAS-No.: 629-96-9

### 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

#### Tetradecanol

content:  $\geq 1 - < 2,5 \%$ 

component type: Impurity

EC-No.: 204-000-3  
 Classification (Regulation  
 (EC) No 1272/2008):

Index-No.:  
 Eye Irrit. 2  
 Aquatic Chronic

H319  
 1

CAS-No.: 112-72-1  
 H410

#### Dodecan-1-ol

content:  $\geq 0,1 - < 0,25 \%$ 

component type: Impurity

EC-No.: 203-982-0  
 Classification (Regulation  
 (EC) No 1272/2008):

Index-No.:  
 Eye Irrit. 2  
 Aquatic Acute  
 Aquatic Chronic

H319  
 1  
 2

CAS-No.: 112-53-8  
 H400  
 H411

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

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**SECTION 4: FIRST AID MEASURES**

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**4.1 Description of first aid measures**

<b>General advice</b>	If you feel unwell, seek medical advice (show the label where possible). Take off all contaminated clothing immediately.
<b>If inhaled</b>	Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, give oxygen if necessary. Consult a physician.
<b>In case of skin contact</b>	Wash off immediately with plenty of water. Consult a physician if necessary.
<b>In case of eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Protect unharmed eye.
<b>If swallowed</b>	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**

<b>Most important symptoms and effects, both acute and delayed</b>	Symptoms: No information available. Risks: No information available.
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**4.3 Indication of any immediate medical attention and special treatment needed**

<b>Indication of any immediate medical attention and special treatment needed</b>	Treatment: No information available.
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**SECTION 5: FIREFIGHTING MEASURES**

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**5.1 Extinguishing media**

<b>Suitable extinguishing media</b>	Water spray, Dry powder, Foam, Carbon dioxide (CO2)
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**5.2 Special hazards arising from the substance or mixture**

<b>Specific hazards during firefighting</b>	Dangerous gases or fumes may occur in case of fire.
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**5.3 Advice for firefighters**

<b>Special protective equipment for firefighters</b>	Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.
<b>Further information</b>	Prevent fire extinguishing water from contaminating surface water or the ground water system.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**6.1 Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Use personal protective equipment.
<b>Special precautions</b>	Forms slippery/greasy layers with water.

**6.2 Environmental precautions**

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**Environmental precautions** Avoid subsoil penetration.  
Do not flush into surface water or sanitary sewer system.

### 6.3 Methods and materials for containment and cleaning up

**Methods for cleaning up** Use mechanical handling equipment. The material taken up must be disposed of in accordance with regulations. Molten form Allow to solidify, use mechanical handling equipment.

### 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.

**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.

**Storage class (TRGS 510)** 10-13: German Storage Class 10 to 13

**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
SURFOL 14 (FATTY ALCOHOL; N-TETRADECANOL)	ST ESL	100	12 2010	TX ESL
SURFOL 14 (FATTY ALCOHOL; N-TETRADECANOL)	AN ESL	10	12 2010	TX ESL
EPAL 12 (LAURYL ALCOHOL)	ST ESL	15	12 2010	TX ESL
Screening levels that have the odor designations represent the levels of constituents in the air at which the odor would be a nuisance.				

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EPAL 12 (LAURYL ALCOHOL)	AN ESL	100	12 2010	TX ESL
Screening levels that have the odor designations represent the levels of constituents in the air at which the odor would be a nuisance.				

### EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

No data available

### DERIVED NO EFFECT LEVEL (DNEL)

Substance name: hexadecan-1-ol			
End Use	Exposure routes	Value	Note
Workers	dermal, Acute/short-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	220 mg/m3	
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	220 mg/m3	
Consumers	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable
	dermal, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	65 mg/m3	
	Oral, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	65 mg/m3	
	Oral, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable

Substance name: octadecan-1-ol			
End Use	Exposure routes	Value	Note

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Workers	dermal, Acute/short-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	220 mg/m <sup>3</sup>	
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	220 mg/m <sup>3</sup>	
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable
Consumers	dermal, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	65 mg/m <sup>3</sup>	
	Oral, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	65 mg/m <sup>3</sup>	
	Oral, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable

Substance name: tetradecanol			
End Use	Exposure routes	Value	Note
Workers	dermal, Acute/short-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	220 mg/m <sup>3</sup>	
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	220 mg/m <sup>3</sup>	
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local		Not relevant / not applicable

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	effects		
Consumers	dermal, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	65 mg/m3	
	Oral, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	65 mg/m3	
	Oral, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable

Substance name: icosan-1-ol			
End Use	Exposure routes	Value	Note
Workers	dermal, Acute/short-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	220 mg/m3	
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	220 mg/m3	
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable
Consumers	dermal, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	65 mg/m3	
	Oral, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic	65 mg/m3	

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	effects		
	Oral, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable

Substance name: docosan-1-ol			
End Use	Exposure routes	Value	Note
Workers	dermal, Acute/short-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	220 mg/m3	
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	220 mg/m3	
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable
Consumers	dermal, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	65 mg/m3	
	Oral, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	65 mg/m3	
	Oral, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable

Substance name: dodecan-1-ol			
End Use	Exposure routes	Value	Note
Workers	dermal, Acute/short-term exposure - systemic effects	125 mg/kg	based on body weight and day



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	Inhalation, Acute/short-term exposure - systemic effects	220 mg/m <sup>3</sup>	
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	125 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	220 mg/m <sup>3</sup>	
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable
Consumers	dermal, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, Acute/short-term exposure - systemic effects	65 mg/m <sup>3</sup>	
	Oral, Acute/short-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Inhalation, Acute/short-term exposure - local effects		Not relevant / not applicable
	dermal, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	Inhalation, long-term exposure - systemic effects	65 mg/m <sup>3</sup>	
	Oral, long-term exposure - systemic effects	75 mg/kg	based on body weight and day
	dermal, long-term exposure - local effects		Not relevant / not applicable
	Inhalation, long-term exposure - local effects		Not relevant / not applicable

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### PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance name: hexadecan-1-ol		
Environmental Compartment	Value	Note
Fresh water	0,00156 mg/l	
Marine water	0,000156 mg/l	
intermittent release		Not relevant / not applicable
treatment plant	0,00013 mg/l	
Fresh water sediment	4,8 mg/kg	based on dry weight
Marine sediment	0,48 mg/kg	based on dry weight
Soil	4 mg/kg	based on dry weight
food		Not relevant / not applicable

Substance name: octadecan-1-ol		
Environmental Compartment	Value	Note
Fresh water	0,00156 mg/l	
Marine water	0,000156 mg/l	
intermittent release		Not relevant / not applicable
treatment plant	0,000011 mg/l	
Fresh water sediment	16 mg/kg	based on dry weight
Marine sediment	1,6 mg/kg	based on dry weight
Soil	13 mg/kg	based on dry weight
food		Not relevant / not applicable

Substance name: tetradecanol		
Environmental Compartment	Value	Note
Fresh water	0,00032 mg/l	
Marine water	0,000032 mg/l	
intermittent release		Not relevant / not applicable
treatment plant	0,0019 mg/l	
Fresh water sediment	0,36 mg/kg	based on dry weight
Marine sediment	0,036 mg/kg	based on dry weight
Soil	0,28 mg/kg	based on dry weight
food		Not relevant / not applicable

Substance name: icosan-1-ol		
Environmental Compartment	Value	Note
Fresh water	0,00156 mg/l	
Marine water	0,000156 mg/l	

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intermittent release		Not relevant / not applicable
treatment plant	0,000027 mg/l	
Fresh water sediment	82 mg/kg	based on dry weight
Marine sediment	8,2 mg/kg	based on dry weight
Soil	66 mg/kg	based on dry weight
food		Not relevant / not applicable

Substance name: docosan-1-ol		
Environmental Compartment	Value	Note
Fresh water	0,00156 mg/l	
Marine water	0,000156 mg/l	
intermittent release		Not relevant / not applicable
treatment plant	0,000036 mg/l	
Fresh water sediment	82 mg/kg	based on dry weight
Marine sediment	8,2 mg/kg	based on dry weight
Soil	66 mg/kg	based on dry weight
food		Not relevant / not applicable

Substance name: dodecan-1-ol		
Environmental Compartment	Value	Note
Fresh water	0,0028 mg/l	
Marine water	0,00028 mg/l	
intermittent release		Not relevant / not applicable
treatment plant	0,021 mg/l	
Fresh water sediment	1,1 mg/kg	based on dry weight
Marine sediment	0,11 mg/kg	based on dry weight
Soil	0,888 mg/kg	based on dry weight
Air		No hazard identified
food		Not relevant / not applicable

### 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.

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### Hand protection

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).

#### gloves suitable for permanent contact:

Material: Nitrile rubber/nitrile latex

Break through time: &gt;= 480 min

Layer thickness: 0,35 mm

Material: butyl-rubber

Break through time: &gt;= 480 min

Layer thickness: 0,5 mm

### Eye protection

Tightly fitting safety goggles

### Skin and body protection

Wear suitable protective equipment.

### 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

Avoid subsoil penetration.

Do not flush into surface water or sanitary sewer system.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	solid; 20 °C; 1.013 hPa
Form	solid
Colour	colourless
Odour	characteristic
Odour Threshold	No data available
pH	Justification:, Not applicable, insoluble
Melting point/range	ca. 47 - 54 °C
Boiling point/boiling range	ca. 300 - 355 °C
Flash point	ca. > 155 °C; DIN 51758
Evaporation rate	Not relevant / not applicable Justification: Solid
Flammability (solid, gas)	No data available

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<b>Lower explosion limit</b>	Not applicable Justification: Solid
<b>Upper explosion limit</b>	Not applicable Justification: Solid
<b>Vapour pressure</b>	ca. < 1,000 hPa; 20 °C
<b>Relative vapour density</b>	Not applicable, Justification: Solid
<b>Density</b>	ca.0,8 g/cm <sup>3</sup> ; 60 °C; DIN 51757
<b>Relative density</b>	No data available
<b>Water solubility</b>	insoluble
<b>Partition coefficient: n-octanol/water</b>	not applicable (mixture)
<b>Ignition temperature</b>	ca. 235 °C
<b>Auto-ignition temperature</b>	Not applicable solid with a melting point < 160°C
<b>Viscosity, dynamic</b>	ca. 11,0 mPas; 60 °C
<b>Explosive properties</b>	Constituents do not contain chemical groups associated with explosivity.
<b>Oxidizing properties</b>	not expected based on structure and functional groups

**9.2 Other data**

None known.

**SECTION 10: STABILITY AND REACTIVITY**

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**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** Incompatible with oxidizing agents.  
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****Materials to avoid** Strong oxidizing agents;**10.6 Hazardous decomposition products****Hazardous decomposition products** No decomposition if stored and applied as directed.**Thermal decomposition** Stable under normal conditions.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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**11.1 Information on toxicological effects****Acute toxicity****Acute oral toxicity**

Hexadecan-1-ol:  
LD50 Rat: > 5.000 mg/kg; OECD Test Guideline 401  
(literature value)  
Based on available data, the classification criteria are not met.

Octadecan-1-ol:  
LD50 Rat: > 5.000 mg/kg; OECD Test Guideline 401  
(literature value)  
Based on available data, the classification criteria are not met.

Icosan-1-ol:  
LD50 Rat: > 5.000 mg/kg; OECD Test Guideline 401  
Based on available data, the classification criteria are not met.

Tetradecanol:  
LD50 Rat: > 5.000 mg/kg  
Based on available data, the classification criteria are not met.

**Acute inhalation toxicity**

Hexadecan-1-ol:  
LC50 Rat: > 1,5 mg/l; 1 h  
maximal attainable concentration  
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Test substance: 1-Tetradecanol  
Based on available data, the classification criteria are not met.

Octadecan-1-ol:  
Obtaining data is technically impossible.  
Justification:  
The LC50 is expected to be greater than the saturated vapour concentration based on weight of evidence across category.

Icosan-1-ol:  
The study is not necessary.  
Justification:  
The LC50 is expected to be greater than the saturated vapour concentration based on weight of evidence across category.

Tetradecanol:  
LC50 Rat: > 1,5 mg/l; 1 h  
Based on available data, the classification criteria are not met.

**Acute dermal toxicity**

Hexadecan-1-ol:  
LD50 Dermal Rabbit: > 5.000 mg/kg;  
Symptoms: Erythema, Emaciation, Weakness  
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Test substance: 1-Tetradecanol  
Based on available data, the classification criteria are not met.

Octadecan-1-ol:  
LD50 Dermal Rabbit: > 5.000 mg/kg;  
Symptoms: Erythema, Emaciation, Weakness  
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Test substance: 1-Tetradecanol  
Based on available data, the classification criteria are not met.

Icosan-1-ol:  
LD50 Rabbit: > 5.000 mg/kg;  
(literature value)  
Based on available data, the classification criteria are not met.

Tetradecanol:  
LD50 Rabbit: > 5.000 mg/kg;

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Target Organs: Skin  
Symptoms: Local irritation  
Based on available data, the classification criteria are not met.

**Skin corrosion/irritation****Skin irritation**

Hexadecan-1-ol:  
Rabbit: not irritating; OECD Test Guideline 404  
(literature value)  
Based on available data, the classification criteria are not met.

Octadecan-1-ol:  
Rabbit: not irritating; OECD Test Guideline 404  
(literature value)  
Based on available data, the classification criteria are not met.

Icosan-1-ol:  
Rabbit: not irritating; OECD Test Guideline 404  
(literature value)  
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Test substance: Docosan-1-ol  
Based on available data, the classification criteria are not met.

Tetradecanol:  
Human: not irritating; OECD Test Guideline 404  
(literature value)  
Based on available data, the classification criteria are not met.

**Human experience -Skin contact**

Hexadecan-1-ol:  
not irritating

Octadecan-1-ol:  
not irritating

**Serious eye damage/eye irritation****Eye irritation**

Hexadecan-1-ol:  
Rabbit: not irritating; OECD Test Guideline 405  
(literature value)  
Based on available data, the classification criteria are not met.

Octadecan-1-ol:  
Rabbit: not irritating; OECD Test Guideline 405  
(literature value)  
Based on available data, the classification criteria are not met.

Icosan-1-ol:  
Rabbit: not irritating; OECD Test Guideline 405  
(literature value)  
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Test substance: Docosan-1-ol  
Based on available data, the classification criteria are not met.

Tetradecanol:  
Rabbit: irritating; OECD Test Guideline 405  
Causes serious eye irritation.

**Respiratory or skin sensitisation****Sensitisation**

Hexadecan-1-ol:  
Maximisation Test Guinea pig: not sensitizing; OECD Test Guideline 406  
(literature value)  
Based on available data, the classification criteria are not met.

Octadecan-1-ol:  
Maximisation Test Guinea pig: not sensitizing; OECD Test Guideline 406  
(literature value)  
Based on available data, the classification criteria are not met.

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Icosan-1-ol:  
Maximisation Test Guinea pig: not sensitizing; OECD Test Guideline 406  
Based on available data, the classification criteria are not met.

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

### Germ cell mutagenicity

#### Genotoxicity in vitro

Hexadecan-1-ol:  
In vitro tests did not show mutagenic effects  
(literature value)  
Category approach

Octadecan-1-ol:  
In vitro tests did not show mutagenic effects  
(literature value)

Icosan-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

Hexadecan-1-ol:  
In vivo tests did not show mutagenic effects  
(literature value)

Octadecan-1-ol:  
In vivo tests did not show mutagenic effects  
(literature value)

Icosan-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

#### Remarks

Hexadecan-1-ol:  
Based on available data, the classification criteria are not met.

Octadecan-1-ol:  
Based on available data, the classification criteria are not met.

Icosan-1-ol:  
Based on available data, the classification criteria are not met.

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

### Carcinogenicity

#### Carcinogenicity

Hexadecan-1-ol:  
The study is not necessary.  
Justification:  
The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.  
Category approach

Octadecan-1-ol:  
The study is not necessary.  
Justification:



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The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.  
Category approach

Icosan-1-ol:  
The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.  
Category approach

Tetradecanol:  
The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.  
Category approach

**Reproductive toxicity**

**Reproductive toxicity**

Hexadecan-1-ol:  
Rat; Oral; 90-day  
No toxicity to reproduction  
Category approach

Octadecan-1-ol:  
Rat; Oral; 55-day; OECD Test Guideline 422  
No toxicity to reproduction  
(literature value)

Icosan-1-ol:  
Rat; Oral; 182-day  
No toxicity to reproduction  
(literature value)  
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Test substance: Docosan-1-ol

Tetradecanol:  
Rat; Oral; 55-day  
NOAEL ((parents)): 2.000 mg/kg (based on body weight and day)  
NOAEL (F1): 2.000 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: dodecan-1-ol

**RemarksReproductive toxicity**

Hexadecan-1-ol:  
Based on available data, the classification criteria are not met.

Octadecan-1-ol:  
Based on available data, the classification criteria are not met.

Icosan-1-ol:  
Based on available data, the classification criteria are not met.

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

**Teratogenicity**

Hexadecan-1-ol:  
Rat; Oral; OECD Test Guideline 422  
Did not show teratogenic effects in animal experiments.  
(literature value)  
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Test substance: dodecan-1-ol

Octadecan-1-ol:  
Rat; Oral; OECD Test Guideline 422  
Did not show teratogenic effects in animal experiments.  
(literature value)

Icosan-1-ol:  
Rabbit; Oral; OECD Test Guideline 414  
Did not show teratogenic effects in animal experiments.  
(literature value)

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Remarks-Teratogenicity	<p>The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Docosan-1-ol</p> <p>Tetradecanol: Rat; Oral NOAEL: 2.000 mg/kg (based on body weight and day); OECD Test Guideline 422 (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: dodecan-1-ol</p> <p>Hexadecan-1-ol: Based on available data, the classification criteria are not met.</p> <p>Octadecan-1-ol: Based on available data, the classification criteria are not met.</p> <p>Icosan-1-ol: Based on available data, the classification criteria are not met.</p> <p>Tetradecanol: Based on available data, the classification criteria are not met.</p>
STOT - single exposure	
Remarks	<p>Hexadecan-1-ol: The substance or mixture is not classified as specific target organ toxicant, single exposure.</p> <p>Octadecan-1-ol: The substance or mixture is not classified as specific target organ toxicant, single exposure.</p> <p>Icosan-1-ol: The substance or mixture is not classified as specific target organ toxicant, single exposure.</p> <p>Tetradecanol: The substance or mixture is not classified as specific target organ toxicant, single exposure.</p>
STOT - repeated exposure	
Remarks	<p>Hexadecan-1-ol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.</p> <p>Octadecan-1-ol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.</p> <p>Icosan-1-ol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.</p> <p>Tetradecanol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.</p>
Repeated dose toxicity	<p>Hexadecan-1-ol: Rat; Oral; Subchronic toxicity NOAEL: &gt; 4.000 mg/kg (based on body weight and day) (literature value)</p> <p>Octadecan-1-ol: Rat; Oral; Subacute toxicity NOAEL: 1.000 mg/kg (based on body weight and day); OECD Test Guideline 407 (literature value)</p> <p>Icosan-1-ol: Rat; Oral; Subchronic toxicity NOAEL: 1.000 mg/kg (based on body weight and day); OECD Test Guideline 408</p>

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(literature value)

The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).  
Test substance: Docosan-1-ol

Tetradecanol:

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

#### Aspiration toxicity

Hexadecan-1-ol:

Not applicable

Octadecan-1-ol:

Not applicable

Icosan-1-ol:

Not applicable

Tetradecanol:

Not applicable

### Toxicological information

Hexadecan-1-ol:

Toxicokinetics

The substance is poorly absorbed via skin.

Components of the product may be absorbed into the body by ingestion.

The substance is metabolised and excreted.

Octadecan-1-ol:

Toxicokinetics

The substance is poorly absorbed via skin.

Components of the product may be absorbed into the body by ingestion.

The substance is metabolised and excreted.

Icosan-1-ol:

Toxicokinetics, metabolism and distribution

The substance is poorly absorbed via skin.

Components of the product may be absorbed into the body by ingestion.

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

Hexadecan-1-ol:

(96 h) *Salmo gairdneri* ; semi-static test; OECD Test Guideline 203

(literature value)

In the range of water solubility not toxic under test conditions.

Octadecan-1-ol:

(96 h) *Oncorhynchus mykiss* (rainbow trout) ; semi-static test; OECD Test Guideline 203

In the range of water solubility not toxic under test conditions.

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	(literature value)
	Icosan-1-ol: (96 h) Oncorhynchus mykiss (rainbow trout) ; semi-static test; OECD Test Guideline 203 In the range of water solubility not toxic under test conditions. (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Octadecan-1-ol
	Tetradecanol: LC50 (96 h) Oncorhynchus mykiss (rainbow trout) ; semi-static test; OECD Test Guideline 203 In the range of water solubility not toxic under test conditions. (literature value)
<b>Toxicity to fish - Chronic toxicity</b>	Hexadecan-1-ol: The study is not necessary. Sufficient information is available to predict no toxicity at the limit of solubility.
	Octadecan-1-ol: Sufficient information is available to predict no toxicity at the limit of solubility.
	Icosan-1-ol: The study is not necessary. Sufficient information is available to predict no toxicity at the limit of solubility.
<b>Toxicity to daphnia and other aquatic invertebrates</b>	Hexadecan-1-ol: (48 h) Daphnia magna (Water flea) ; calculated; QSAR (literature value) In the range of water solubility not toxic under test conditions.
	Octadecan-1-ol: (48 h) Daphnia magna (Water flea) ; static test; OECD Test Guideline 202 In the range of water solubility not toxic under test conditions. (literature value)
	Icosan-1-ol: (48 h) Daphnia magna (Water flea) ; calculated; QSAR In the range of water solubility not toxic under test conditions. (literature value)
	Tetradecanol: EC50 (48 h) Daphnia magna (Water flea) ; semi-static test; OECD Test Guideline 202 In the range of water solubility not toxic under test conditions. (literature value)
<b>Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity</b>	Hexadecan-1-ol: The study is not necessary. Sufficient information is available to predict no toxicity at the limit of solubility.
	Octadecan-1-ol: NOEC (21 d) Daphnia magna (Water flea); reproduction rate; flow-through test; EPA OPPTS 850.1300; (literature value) In the range of water solubility not toxic under test conditions. Test substance: Octadecanol, branched
	Icosan-1-ol: The study is not necessary. Sufficient information is available to predict no toxicity at the limit of solubility.
	Tetradecanol: NOEC (21 d) Daphnia magna (Water flea): > 0,001 - 0,01 mg/l; reproduction rate; semi-static test; OECD Test Guideline 211; (literature value)
<b>Toxicity to aquatic plants</b>	Hexadecan-1-ol: (96 h) Desmodesmus subspicatus (green algae) ; static test; OECD Test Guideline 201; (literature value) In the range of water solubility not toxic under test conditions.

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	<p>Octadecan-1-ol: (96 h) <i>Desmodesmus subspicatus</i> (green algae) ; static test; OECD Test Guideline 201; In the range of water solubility not toxic under test conditions. (literature value)</p> <p>Icosan-1-ol: EC50 (72 h) ; calculated; In the range of water solubility not toxic under test conditions. (literature value) Category approach</p> <p>Tetradecanol: EL50 (96 h) <i>Desmodesmus subspicatus</i> (green algae) ; static test; In the range of water solubility not toxic under test conditions. (literature value)</p>
<b>Toxicity to bacteria</b>	<p>Hexadecan-1-ol: No data available</p> <p>Octadecan-1-ol: No data available</p> <p>Icosan-1-ol: The study is not necessary. Readily biodegradable. The substance is not to be considered to be inhibitory to bacteria.</p> <p>Tetradecanol: No data available</p>
<b>Toxicity to soil dwelling organisms</b>	<p>Hexadecan-1-ol: No data available</p> <p>Octadecan-1-ol: No data available</p> <p>Icosan-1-ol: The study is not necessary. The substance does not pose a chronic hazard to soil organisms. exposure considerations</p> <p>Tetradecanol: LC50 (72 h) <i>Caenorhabditis elegans</i>, Worm (Nematoda): &gt; 1.000 mg/kg; mortality (literature value)</p> <p>Tetradecanol: EC50 (7 d) <i>Folsomia candida</i>, Arthropod (Collembola): 530 mg/kg; Immobilization (literature value)</p>
<b>Toxicity to terrestrial flora</b>	<p>Icosan-1-ol: The study is not necessary. The substance does not pose a chronic hazard to soil organisms. exposure considerations</p>
<b>Toxicity for other terrestrial non-mammalian fauna</b>	<p>Icosan-1-ol: The study is not necessary. Studies on birds do not need to be conducted due to large mammalian dataset.</p>
<b>12.2 Persistence and degradability</b>	
<b>Biodegradability</b>	<p>Hexadecan-1-ol: Readily biodegradable.; &gt; 60 %; 28 d; aerobic; OECD Test Guideline 301B (literature value)</p> <p>Hexadecan-1-ol: Biodegradable; &gt; 60 %; 28 d; anaerobic (literature value)</p> <p>Octadecan-1-ol: Readily biodegradable.; &gt; 60 %; 28 d; aerobic; OECD Test Guideline 301B (literature value)</p> <p>Icosan-1-ol:</p>

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

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

**12.3 Bioaccumulative potential****Bioaccumulation**

Hexadecan-1-ol:  
Bioaccumulation is unlikely.

Octadecan-1-ol:  
Bioaccumulation is unlikely.

Icosan-1-ol:  
Bioaccumulation is unlikely.

Tetradecanol:  
Bioaccumulation is unlikely.

**12.4 Mobility in soil****Mobility**

Hexadecan-1-ol:  
Adsorption/Soil; Koc: 143000; log Koc: 5,15; calculated  
immobile  
strong adsorption to soil  
The substance and its relevant degradation products decompose rapidly.

Octadecan-1-ol:  
Adsorption/Soil; Koc: 471350; log Koc: 5,67; OECD Test Guideline 106  
immobile  
strong adsorption to soil

Icosan-1-ol:  
Adsorption/Soil; Koc: 112000; calculated  
immobile  
strong adsorption to soil  
The substance and its relevant degradation products decompose rapidly.

Tetradecanol:  
Adsorption/Soil; Koc: 50828; log Koc: 4,71; calculated  
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**

Hexadecan-1-ol:  
Based on available data, the classification criteria are not met.  
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Octadecan-1-ol:  
Based on available data, the classification criteria are not met.  
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Icosan-1-ol:  
Based on available data, the classification criteria are not met.  
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

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

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(vPvB).

### 12.6 Other adverse effects

#### General advice

Hexadecan-1-ol:  
None known.Octadecan-1-ol:  
None known.Icosan-1-ol:  
None known.Tetradecanol:  
Very toxic to aquatic life with long lasting effects.

#### Environmental distribution

Hexadecan-1-ol:  
Predicted distribution to environmental compartments  
After release, adsorbs onto soil.Octadecan-1-ol:  
Predicted distribution to environmental compartments  
After release, adsorbs onto soil.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Can be incinerated, when in compliance with local regulations.

#### waste code of the European Union: EWC

The waste code must be determined in agreement with the regional waste disposal authority or company. 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.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 UN number

ADR Not dangerous goods

RID Not dangerous goods

ADN Not dangerous goods

IMDG Not dangerous goods

ICAO/IATA Not dangerous goods

### 14.2 Proper shipping name

ADR Not dangerous goods

RID Not dangerous goods

ADN Not dangerous goods

IMDG Not dangerous goods

ICAO/IATA Not dangerous goods

### 14.3 Transport hazard class

ADR Not dangerous goods

RID Not dangerous goods

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ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

**14.4 Packing group**

ADR	Not dangerous goods
RID	Not dangerous goods
ADN	Not dangerous goods
IMDG	Not dangerous goods
ICAO/IATA	Not dangerous goods

**14.5 Environmental hazards**

ADR	Environmentally hazardous	no
RID	Environmentally hazardous	no
ADN	Environmentally hazardous	no
IMDG	Marine pollutant	no
ICAO/IATA	Environmentally hazardous	no

**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**

Remarks No information available.

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

<b>Legislation on the control of major-accident hazards involving dangerous substances</b>	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:: Not applicable
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### NOTIFICATION STATUS

Switzerland. Consolidated Inventory	CH INV	listed (product or constituents are listed)
US. Toxic Substances Control Act	TSCA	listed (product or constituents are listed)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	listed (product or constituents are listed)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	listed (product or constituents are listed)
Japan. Kashin-Hou Law List	ENCS (JP)	listed (product or constituents are listed)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	listed (product or constituents are listed)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	listed (product or constituents are listed)
China. Inventory of Existing Chemical Substances	INV (CN)	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

#### hexadecan-1-ol

A Chemical Safety Assessment has been carried out for this substance. An annex to the MSDS is not required.

#### octadecan-1-ol

A Chemical Safety Assessment has been carried out for this substance. An annex to the MSDS is not required.

#### icosan-1-ol

A Chemical Safety Assessment has been carried out for this substance. An annex to the MSDS is not required.

#### tetradecanol

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

## 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.

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### Safety datasheet sections which have been updated:

- 2. Hazards identification
- 3. Composition/information on ingredients
- 8. Exposure controls/personal protection
- 9. Physical and chemical properties
- 11. Toxicological information
- 12. Ecological information
- 15. Regulatory 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
IUAPC	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
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

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### Annex

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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.

**hexadecan-1-ol**

[http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000062\\_EN\\_01.pdf](http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000062_EN_01.pdf)

**octadecan-1-ol**

[http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000063\\_EN\\_01.pdf](http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000063_EN_01.pdf)

**icosan-1-ol**

[http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000108\\_EN\\_01.pdf](http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000108_EN_01.pdf)

**tetradecanol**

[http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000101\\_EN\\_01.pdf](http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000101_EN_01.pdf)

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