

NAFOL 1618

Version: 5.04

Revision Date 30.08.2017

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

Trade name	NAFOL 1618
INCI	Cetearyl Alcohol

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

Use	Industrial use raw material for cosmetic agents 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 raw material for stabilizers
Uses advised against	

1.3 Details of the supplier of the safety data sheet

Company	SASOL Germany GmbH Anckelmannsplatz 1 20537 Hamburg Telephone: +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)
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SECTION 2: HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Chronic aquatic toxicity 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.

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P501

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

2.3 Other hazards

No hazards to be specially mentioned.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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

CHEMICAL CHARACTERIZATION**Hexadecan-1-ol****content:** $\geq 23 - 76 \%$ **component type:** Active ingredient**EC-No.:** 253-149-0**Index-No.:****CAS-No.:** 36653-82-4**REACH No.:** 01-2119485905-24-0000**Substance name (REACH / CLP):** hexadecan-1-ol**Octadecan-1-ol****content:** $\geq 20 - 75 \%$ **component type:** Active ingredient**EC-No.:** 204-017-6**Index-No.:****CAS-No.:** 112-92-5**REACH No.:** 01-2119485907-20-0000**Substance name (REACH / CLP):** octadecan-1-ol**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:** $< 2,5 \%$ **component type:** Impurity**EC-No.:** 204-000-3**Index-No.:****CAS-No.:** 112-72-1**Classification (Regulation (EC) No 1272/2008):**Eye Irrit. 2
Aquatic ChronicH319
1

H410

Dodecan-1-ol**content:** $\leq 1,3 \%$ **component type:** Impurity**EC-No.:** 203-982-0**Index-No.:****CAS-No.:** 112-53-8**Classification (Regulation (EC) No 1272/2008):**Eye Irrit. 2
Aquatic Acute
Aquatic ChronicH319
1
2H400
H411**Substances for which maximum allowable workplace concentrations have been laid down****Hexadecan-1-ol****content:** $\geq 23 - \leq 76 \%$ **component type:** Active ingredient**EC-No.:** 253-149-0**Index-No.:****CAS-No.:** 36653-82-4**REACH No.:** 01-2119485905-24-0000**Substance name (REACH / CLP):** hexadecan-1-ol

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Octadecan-1-ol**content:** ≥ 20 - ≤ 75 %**component type:** Active ingredient**EC-No.:** 204-017-6**Index-No.:****CAS-No.:** 112-92-5**REACH No.:** 01-2119485907-20-0000**Substance name (REACH / CLP):** octadecan-1-ol**Icosan-1-ol****content:** ≤ 3 %**component type:** Impurity**EC-No.:** 211-119-4**Index-No.:****CAS-No.:** 629-96-9

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**

No hazards which require special first aid measures.

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 with plenty of water.

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

Symptoms: No information available.

Risks: No information available.

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

Treatment: No information available.

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media****Suitable extinguishing media**Water spray, Dry powder, Foam, Carbon dioxide (CO₂)**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**

Wear self-contained breathing apparatus for firefighting if necessary.

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Further information

Standard procedure for chemical fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment.
Special precautions	Danger of slipping after spill or leakage.

6.2 Environmental precautions

Environmental precautions	Should not be released into the environment.
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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal.
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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 protection against fire and explosion	Normal measures for preventive fire protection.
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.
Storage class (TRGS 510)	11: Combustible Solids
Other data	Stable under normal conditions.

7.3 Specific end use(s)

Specific use(s)	This information is not available.
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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
ALFOL (EPAL) 16 ALCOHOL (95-97% 1-HEXADECANOL)	ST ESL	100	12 2010	TX ESL
ALFOL (EPAL) 16 ALCOHOL (95-97% 1-HEXADECANOL)	AN ESL	200	12 2010	TX ESL
OCTADECANOL, 1-	ST ESL	100	12 2010	TX ESL
ALFOL (EPAL)18	AN ESL	10	12 2010	TX ESL
EICOSANOL, 1-	ST ESL	100	12 2010	TX ESL
EICOSANOL, 1-	AN ESL	10	12 2010	TX ESL
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.			
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

Contains no substances with occupational exposure limit values.

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

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	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: octadecan-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 -		Not relevant / not applicable

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	local effects		
	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

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

8.2 Exposure controls

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 dust, fibres and smoke occur, use self-contained breathing apparatus or breathing apparatus with a type P2 or P3 filter, in compliance with EN 143.

Hand protection

The choice of an appropriate glove does not only depend on its material but also

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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: \geq 480 min

Layer thickness: 0,35 mm

Material: butyl-rubber

Break through time: \geq 480 min

Layer thickness: 0,5 mm

Eye protection

Safety glasses

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

Protective measures

No special protective equipment required.

ENVIRONMENTAL EXPOSURE CONTROLS**General advice**

Should not be released into the environment.

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 valid method available
pH	Not applicable, Justification: insoluble
Melting point/range	ca. 47 - 56 °C
Boiling point/boiling range	ca. 300 - 355 °C
Flash point	> 155 °C; DIN 51758
Evaporation rate	Not relevant / not applicable Justification: Solid
Flammability (solid, gas)	not auto-flammable
Lower explosion limit	Not applicable Justification: Solid
Upper explosion limit	Not applicable

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	Justification: Solid
Vapour pressure	< 1,000 hPa; 20 °C
Relative vapour density	Not applicable, Justification: Solid
Density	ca.0,8 g/cm ³ ; 60 °C; DIN 51757
Water solubility	insoluble
Partition coefficient: n-octanol/water	not applicable (mixture)
Ignition temperature	ca. 235 °C
Viscosity, dynamic	ca. 8,5 - 9,5 mPas; 60 °C
Explosive properties	Constituents do not contain chemical groups associated with explosivity.
Oxidizing properties	not expected based on structure and functional groups

9.2 Other data

None known.

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

Materials to avoid Strong oxidizing agents; Strong acids

10.6 Hazardous decomposition products

Hazardous decomposition products No decomposition if used as directed.

Thermal decomposition No decomposition if used as directed.

SECTION 11: TOXICOLOGICAL INFORMATION

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)

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	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.
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.
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.
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.
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.
Respiratory or skin sensitisation	
Sensitisation	Hexadecan-1-ol: Maximisation Test Guinea pig: not sensitizing; OECD Test Guideline 406

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

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	Test substance: dodecan-1-ol Octadecan-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
Remarks-Teratogenicity	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.
STOT - single exposure	
Remarks	Hexadecan-1-ol: The substance or mixture is not classified as specific target organ toxicant, single exposure. Octadecan-1-ol: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	
Remarks	Hexadecan-1-ol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure. Octadecan-1-ol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Repeated dose toxicity	Hexadecan-1-ol: Rat; Oral; Subchronic toxicity NOAEL: > 4.000 mg/kg (based on body weight and day) (literature value) Octadecan-1-ol: Rat; Oral; Subacute toxicity NOAEL: 1.000 mg/kg (based on body weight and day); OECD Test Guideline 407 (literature value)
Aspiration hazard	
Aspiration toxicity	Hexadecan-1-ol: Not applicable Octadecan-1-ol: 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.

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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.
(literature value)

Toxicity to fish - Chronic toxicity

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.

Toxicity to daphnia and other aquatic invertebrates

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)

Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity

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

Toxicity to aquatic plants

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.

Octadecan-1-ol:
(96 h) *Desmodesmus subspicatus* (green algae) ; static test; OECD Test Guideline 201; In the range of water solubility not toxic under test conditions.
(literature value)

Toxicity to bacteria

Hexadecan-1-ol:
No data available

Octadecan-1-ol:
No data available

Toxicity to soil dwelling organisms

Hexadecan-1-ol:
No data available

Octadecan-1-ol:
No data available

12.2 Persistence and degradability**Biodegradability**

Hexadecan-1-ol:
Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301B
(literature value)

Hexadecan-1-ol:
Biodegradable; > 60 %; 28 d; anaerobic

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	(literature value)
	Octadecan-1-ol: 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.
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
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).
12.6 Other adverse effects	
General advice	Hexadecan-1-ol: None known. Octadecan-1-ol: None known.
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	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

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Union: EWC

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**

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
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.

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SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**NATIONAL/OTHER REGULATIONS****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:: Not applicable

NOTIFICATION STATUS

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)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	NZIOC	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)
Switzerland. Consolidated Inventory	CH INV	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**octadecan-1-ol**

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

hexadecan-1-ol

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

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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:

- 8. Exposure controls/personal protection
- 11. Toxicological information
- 12. Ecological information
- 15. Regulatory information
- Annex

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
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



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TSCA
vPvB
WGK

Toxic Substances Control Act
very persistent, very bioaccumulative
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.

hexadecan-1-ol

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
