

CERALUTION H

Version: 5.04

Revision Date 2013/09/13

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name	CERALUTION H
INCI	Behenyl Alcohol, Glyceryl Stearate, Glyceryl Stearate Citrate, Disodium Ethylene Dicotamide PEG-15 Disulfate

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

Use	industrial use raw material for cosmetic agents
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:	msds-info.germany@de.sasol.com

1.4 Emergency telephone number

Emergency telephone number	+ 49 (0) 23 65 - 49 22 32
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SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

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

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

2.2 Label elements

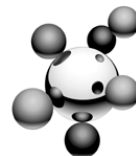
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3 Other hazards

Forms slippery/greasy layers with water.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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

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CHEMICAL CHARACTERIZATION**Glycerides, C16-18 mono-, di- and tri-**

content: 30 - 50 %

component type: Active ingredient

EC-No.: 293-215-6

Index-No.:

CAS-No.: 91052-54-9

REACH No.:

Substance name (REACH / CLP): Glycerides, C16-18 mono-, di- and tri-

Docosan-1-ol

content: 10 - 25 %

component type: Active ingredient

EC-No.: 211-546-6

Index-No.:

CAS-No.: 661-19-8

REACH No.: 01-2119487963-20-0000

Substance name (REACH / CLP): docosan-1-ol

Octadecan-1-ol

content: 10 - 25 %

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

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt

content: 10 - 20 %

component type: Active ingredient

EC-No.:

Index-No.:

CAS-No.: 519050-73-8

REACH No.: Not relevant (polymer)

Glycerides, C16-18 mono-, di- and tri-, hydrogenated, citrates, potassium salts

content: 10 - 20 %

component type: Active ingredient

EC-No.: 294-600-1

Index-No.:

CAS-No.: 91744-38-6

REACH No.:

Substance name (REACH / CLP): Glycerides, C16-18 mono-, di- and tri-, hydrogenated, citrates, potassium salts

Icosan-1-ol

content: 3 - 7 %

component type: Active ingredient

EC-No.: 211-119-4

Index-No.:

CAS-No.: 629-96-9

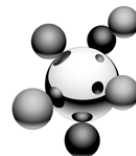
REACH No.: 01-2119485909-16-0000

Substance name (REACH / CLP): icosan-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

No dangerous ingredients according to Regulation (EC) No. 1907/2006

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



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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.
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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.
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SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

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

Specific hazards during firefighting	Dangerous gases or fumes may occur in case of fire.
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5.3 Advice for firefighters

Special protective equipment for firefighters	Wear self contained breathing apparatus for fire fighting if necessary.
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.

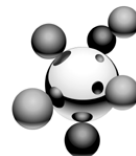
6.2 Environmental precautions

Environmental precautions	No special environmental precautions required.
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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. Molten form: Allow to solidify, use mechanical handling equipment.
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6.4 Reference to other sections



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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.

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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

no data available

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

no data available

8.2 Exposure controls

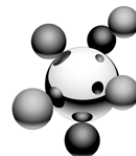
PERSONAL PROTECTIVE EQUIPMENT

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 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: butyl-rubber
Break through time: >= 480 min

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Material thickness: ≥ 0.7 mm**gloves suitable for splash protection:**

Material: Nitrile rubber/nitrile latex

Break through time: ≥ 30 minMaterial thickness: ≥ 0.4 mm

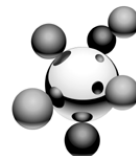
Eye protection	Safety glasses
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.
Protective measures	No special protective equipment required.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice	No special environmental precautions required.
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Physical state	solid; 20 °C; 1,013 hPa
Form	waxy
Colour	yellow
Odour	mild
Odour Threshold	no data available
pH	ca. 6.4; 10 g/l; 20 °C
Melting point/range	61.2 °C; 1,013 hPa
Boiling point/boiling range	ca. 90 °C; 1,013 hPa
Flash point	> 90 °C; 1,013 hPa
Evaporation rate	Not relevant / not applicable
Flammability (solid, gas)	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	< 0.1 hPa; 20 °C
Relative vapour density	no data available
Density	0.881 g/cm ³ ; 75 °C; DIN 51757
Relative density	no data available
Bulk density	not applicable
Water solubility	no data available
Partition coefficient: n-octanol/water	not applicable
Ignition temperature	no data available



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Auto-ignition temperature	no data available
Viscosity, dynamic	1,000 mPas; 60 °C; ISO 6388
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 None known.;

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

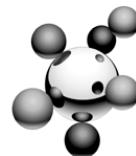
Acute toxicity

Acute oral toxicity

Docosan-1-ol:
LD50 rat: > 2,000 mg/kg
(literature value)
Based on available data, the classification criteria are not met.

Octadecan-1-ol:
LD50 rat: > 2,000 mg/kg; OECD Test Guideline 401
(literature value)
Based on available data, the classification criteria are not met.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
LD50 rat: > 2,000 mg/kg; OECD Test Guideline 401
Based on available data, the classification criteria are not met.

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Acute inhalation toxicity

Icosan-1-ol:
LD50 rat: > 5,000 mg/kg; OECD Test Guideline 401
Based on available data, the classification criteria are not met.

Docosan-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.

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.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
no data available

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.

Acute dermal toxicity

Docosan-1-ol:
LD50 rabbit: > 5,000 mg/kg;
(literature value)
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Test substance: Icosan-1-ol
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.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
LD50 rabbit: > 2,000 mg/kg; OECD Test Guideline 402
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.

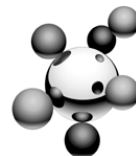
Skin corrosion/irritation**Skin irritation**

Docosan-1-ol:
rabbit: not irritating; OECD Test Guideline 404
(literature value)
No skin irritation

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

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
rabbit: slightly irritating; OECD Test Guideline 404
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



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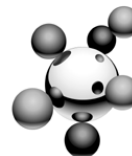
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Human experience -Skin contact

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

Octadecan-1-ol:
not irritating**Serious eye damage/eye irritation****Eye irritation**Docosan-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 404
(literature value)
Based on available data, the classification criteria are not met.C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
rabbit: slightly irritating; OECD Test Guideline 405
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.**Respiratory or skin sensitisation****Sensitisation**Docosan-1-ol:
Maximisation Test guinea pig: not sensitizing; OECD Test Guideline 406
(literature value)
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Test substance: Octadecan-1-ol
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.C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
Buehler Test guinea pig: not sensitizing; OECD Test Guideline 406
Based on available data, the classification criteria are not met.Icosan-1-ol:
Maximisation Test guinea pig: not sensitizing; OECD Test Guideline 406
(literature value)
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
Test substance: Octadecan-1-ol
Based on available data, the classification criteria are not met.**Germ cell mutagenicity****Genotoxicity in vitro**Docosan-1-ol:
In vitro tests did not show mutagenic effects
(literature value)
Category approachOctadecan-1-ol:
In vitro tests did not show mutagenic effects
(literature value)C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
Ames test; Salmonella typhimurium; with and without metabolic activation: not
mutagenic; OECD Test Guideline 471

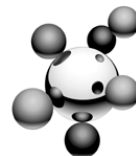


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Genotoxicity in vivo	<p>Icosan-1-ol: In vitro tests did not show mutagenic effects (literature value) Category approach</p> <p>Docosan-1-ol: In vivo tests did not show mutagenic effects (literature value) Category approach</p> <p>Octadecan-1-ol: In vivo tests did not show mutagenic effects (literature value)</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: no data available</p>
Remarks	<p>Icosan-1-ol: In vivo tests did not show mutagenic effects (literature value) Category approach</p> <p>Docosan-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>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: 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>
Carcinogenicity	
Carcinogenicity	<p>Docosan-1-ol: The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential. Category approach</p> <p>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</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: This information is not available.</p> <p>Icosan-1-ol: The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential. Category approach</p>
Reproductive toxicity	
Reproductive toxicity	<p>Docosan-1-ol: rat; Oral NOAEL ((parents)): > 1,000 mg/kg (based on body weight and day) NOAEL (F1): > 1,000 mg/kg (based on body weight and day) (literature value)</p> <p>Octadecan-1-ol: 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); OECD Test Guideline 422 (literature value)</p> <p>Octadecan-1-ol:</p>

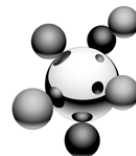


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<p>rat; Oral; 90-day NOAEL ((parents)): 1,127 mg/kg (based on body weight and day) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Hexan-1-ol</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: This information is not available.</p> <p>Icosan-1-ol: rat; Oral; 182-day NOAEL ((parents)): 1,000 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: Docosan-1-ol</p> <p>RemarksReproductive toxicity</p> <p>Docosan-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>Teratogenicity</p> <p>Docosan-1-ol: rabbit; Oral NOAEL: > 2,000 mg/kg (based on body weight and day) NOAEL (dam): > 2,000 mg/kg (based on body weight and day) (literature value)</p> <p>Octadecan-1-ol: rat; Oral NOAEL: 2,000 mg/kg (based on body weight and day) NOAEL (dam): 2,000 mg/kg (based on body weight and day); OECD Test Guideline 422 (literature value)</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: This information is not available.</p> <p>Icosan-1-ol: rabbit; Oral NOAEL: 2,000 mg/kg (based on body weight and day) NOAEL (dam): 2,000 mg/kg (based on body weight and day); OECD Test Guideline 414 (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Docosan-1-ol</p> <p>Remarks-Teratogenicity</p> <p>Docosan-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>STOT - single exposure</p> <p>Remarks</p> <p>Docosan-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>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: The substance or mixture is not classified as specific target organ toxicant, single</p>	<p>rat; Oral; 90-day NOAEL ((parents)): 1,127 mg/kg (based on body weight and day) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Hexan-1-ol</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: This information is not available.</p> <p>Icosan-1-ol: rat; Oral; 182-day NOAEL ((parents)): 1,000 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: Docosan-1-ol</p> <p>Docosan-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>Docosan-1-ol: rabbit; Oral NOAEL: > 2,000 mg/kg (based on body weight and day) NOAEL (dam): > 2,000 mg/kg (based on body weight and day) (literature value)</p> <p>Octadecan-1-ol: rat; Oral NOAEL: 2,000 mg/kg (based on body weight and day) NOAEL (dam): 2,000 mg/kg (based on body weight and day); OECD Test Guideline 422 (literature value)</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: This information is not available.</p> <p>Icosan-1-ol: rabbit; Oral NOAEL: 2,000 mg/kg (based on body weight and day) NOAEL (dam): 2,000 mg/kg (based on body weight and day); OECD Test Guideline 414 (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Docosan-1-ol</p> <p>Docosan-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>Docosan-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>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: The substance or mixture is not classified as specific target organ toxicant, single</p>
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exposure.

Icosan-1-ol:

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure**Remarks**

Docosan-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.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:

This information is not available.

Icosan-1-ol:

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Docosan-1-ol:

rat; Oral; 182-day

NOAEL: 1,000 mg/kg (based on body weight and day); OECD Test Guideline 408 (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)

Icosan-1-ol:

rat; Oral; Subchronic toxicity

NOAEL: 1,000 mg/kg (based on body weight and day); OECD Test Guideline 408 (literature value)

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

Test substance: Docosan-1-ol

Aspiration hazard**Aspiration toxicity**

Docosan-1-ol:

not applicable

Octadecan-1-ol:

not applicable

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:

not applicable

Icosan-1-ol:

not applicable

Toxicological information

Docosan-1-ol:

Toxicokinetics

The substance is poorly absorbed via skin.

The substance is predicted to be bioavailable via the oral route.

The substance is metabolised and excreted.

Octadecan-1-ol:

Toxicokinetics

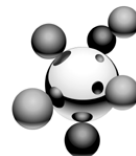
The substance is poorly absorbed via skin.

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

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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.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity****Toxicity to fish**

Docosan-1-ol:
LC50 (96 h) *Oncorhynchus mykiss* (rainbow trout): > 100 mg/l; semi-static test; OECD Test Guideline 203
concentration/loading rate greater than the limit of water solubility (literature value)

Octadecan-1-ol:
(96 h) *Salmo gairdneri*; 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: Hexadecan-1-ol

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
LC50 (96 h) *Cyprinus carpio* (Carp): > 1 - 10 mg/l; semi-static test; OECD Test Guideline 203

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

Toxicity to fish - Chronic toxicity

Docosan-1-ol:
The study is not necessary.
Justification:
Obtaining data is technically impossible.

Octadecan-1-ol:
The study is not necessary.
Justification:
Obtaining data is technically impossible.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
no data available

Icosan-1-ol:
The study is not necessary.
Sufficient information is available to predict no toxicity at the limit of solubility.

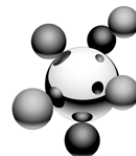
Toxicity to daphnia and other aquatic invertebrates

Docosan-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)

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
EC50 (48 h) *Daphnia magna* (Water flea): > 10 - 100 mg/l; static test; OECD Test Guideline 202

Icosan-1-ol:
(48 h) *Daphnia magna* (Water flea); calculated; QSAR

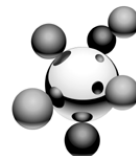


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	In the range of water solubility not toxic under test conditions. (literature value)
Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity	<p>Docosan-1-ol: The study is not necessary. Justification: Obtaining data is technically impossible.</p> <p>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</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: no data available</p> <p>Icosan-1-ol: The study is not necessary. Sufficient information is available to predict no toxicity at the limit of solubility.</p>
Toxicity to aquatic plants	<p>Docosan-1-ol: ; calculated; In the range of water solubility not toxic under test conditions. Category approach</p> <p>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)</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: EC50 (72 h) Desmodesmus subspicatus (green algae): > 1 - 10 mg/l; static test; OECD Test Guideline 201</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>
Toxicity to bacteria	<p>Docosan-1-ol: The study is not necessary. Justification: Readily biodegradable.</p> <p>Octadecan-1-ol: The study is not necessary. Justification: Readily biodegradable.</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: EC50 (7 h) Pseudomonas putida: > 10,000 mg/l; Cell multiplication inhibition test; DIN 38412</p> <p>Icosan-1-ol: The study is not necessary. Justification: Readily biodegradable.</p>
Toxicity to soil dwelling organisms	<p>Docosan-1-ol: The study is not necessary. Justification: unlikely direct and indirect exposure of the soil compartment Readily biodegradable.</p> <p>Octadecan-1-ol: The study is not necessary. Justification: Readily biodegradable. unlikely direct and indirect exposure of the soil compartment</p> <p>C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt: The study is not necessary.</p>



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Toxicity to terrestrial flora

Justification:
Readily biodegradable.

Icosan-1-ol:
The study is not necessary.

Justification:
Readily biodegradable.
unlikely direct and indirect exposure of the soil compartment

Docosan-1-ol:
The study is not necessary.
Justification:
unlikely direct and indirect exposure of the soil compartment
Readily biodegradable.

Octadecan-1-ol:
The study is not necessary.
Justification:
unlikely direct and indirect exposure of the soil compartment

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
The study is not necessary.
Justification:
Readily biodegradable.

Icosan-1-ol:
The study is not necessary.
Justification:
Readily biodegradable.
unlikely direct and indirect exposure of the soil compartment

Toxicity for other terrestrial non-mammalian fauna

Docosan-1-ol:
The study is not necessary.
Justification:
Studies on birds do not need to be conducted due to large mammalian dataset.

Octadecan-1-ol:
The study is not necessary.
Studies on birds do not need to be conducted due to large mammalian dataset.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
The study is not necessary.
Justification:
Readily biodegradable.

Icosan-1-ol:
The study is not necessary.
Studies on birds do not need to be conducted due to large mammalian dataset.

12.2 Persistence and degradability

Biodegradability

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

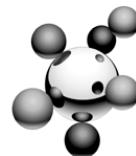
Octadecan-1-ol:
Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301 B (literature value)

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
Readily biodegradable.; > 70 %; 28 d; aerobic; OECD Test Guideline 301 A (new version)

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
Readily biodegradable.; > 60 %; 28 d; aerobic; OECD Test Guideline 301 B

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

12.3 Bioaccumulative potential

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Bioaccumulation

Docosan-1-ol:
Bioaccumulation is unlikely.

Octadecan-1-ol:
Bioaccumulation is unlikely.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
no data available

Icosan-1-ol:
Bioaccumulation is unlikely.

12.4 Mobility in soil**Mobility**

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

Octadecan-1-ol:
Adsorption/Soil; Koc: 471350; calculated
immobile
strong adsorption to soil

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
no data available

Icosan-1-ol:
Adsorption/Soil; Koc: 112000; 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**

Docosan-1-ol:
Based on available data, the classification criteria are not met.
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

Octadecan-1-ol:
Based on available data, the classification criteria are not met.
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

Icosan-1-ol:
Based on available data, the classification criteria are not met.
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects**General advice**

Docosan-1-ol:
None known.

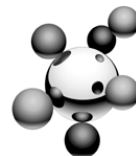
Octadecan-1-ol:
None known.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt:
None known.

Icosan-1-ol:
None known.

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

Can be incinerated, when in compliance with local regulations.



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waste code of the European Union: EWC

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**

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

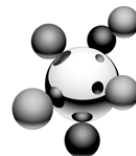
ADR	Environmentally hazardous	no
RID	Environmentally hazardous	no
ADN	Environmentally hazardous	no
IMDG	Marine pollutant	no
ICAO/IATA	Environmentally hazardous	no

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

Directive 96/82/EC on the control of major-accident hazards involving dangerous substances list entry in the directive: Directive 96/82/EC does not apply

NOTIFICATION STATUS

US. Toxic Substances Control Act	TSCA	n (Negative listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	n (Negative listing)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	n (Negative listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	NZIOC	n (Negative listing)
Japan. Kashin-Hou Law List	ENCS (JP)	n (Negative listing)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	n (Negative listing)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	n (Negative listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	n (Negative listing)
China. Inventory of Existing Chemical Substances	INV (CN)	y (positive listing)
Switzerland. Consolidated Inventory	CH INV	y (positive listing)

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

docosan-1-ol

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

octadecan-1-ol

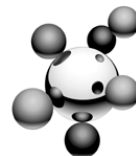
A Chemical Safety Assessment has been carried out for this substance.

C12/C14-Fatty acid-ethylendiamidethersulfate, sodium salt

A Chemical Safety Assessment is not required for this substance (exempted from obligation to register).

icosan-1-ol

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



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SECTION 16: OTHER INFORMATION

Safety datasheet sections which have been updated:

3. Composition/information on ingredients

Further information:

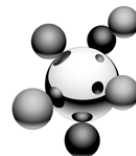
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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

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.



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docosan-1-ol

http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000109_EN_01.pdf

octadecan-1-ol

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