**ISOFOL 20**

Version: 4.10

Revision Date 2012/03/29

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

Trade name	<b>ISOFOL 20</b>
INCI	Octyldodecanol
REACH No.	01-2119488016-36-0000
Substance name (REACH / CLP)	2-octyldodecan-1-ol

**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 raw material for welding and soldering aids
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) 5 51 - 1 92 40
----------------------------	-------------------------

**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)**

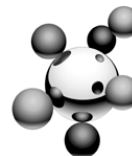
Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

**2.2 Label elements**

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

**2.3 Other hazards**

Danger of slipping after spill or leakage.

**ISOFOL 20**

Version: 4.10

Revision Date 2012/03/29

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

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

**CHEMICAL CHARACTERIZATION****2-Octyldodecan-1-ol****component type:** Active ingredient**EC-No.:** 226-242-9**Index-No.:****CAS-No.:** 5333-42-6**REACH No.:** 01-2119488016-36-0000**Substance name (REACH / CLP):** 2-octyldodecan-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**

<b>General advice</b>	No hazards which require special first aid measures.
<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>	Take off all contaminated clothing immediately.
<b>In case of eye contact</b>	Rinse with water.
<b>If swallowed</b>	Call a physician immediately.

**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.
--	---

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

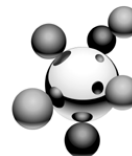
<b>Indication of any immediate medical attention and special treatment needed</b>	Treatment: No information available.
---	--------------------------------------

**SECTION 5: FIREFIGHTING MEASURES****5.1 Extinguishing media**

<b>Suitable extinguishing media</b>	Water spray, Dry powder, Foam, Carbon dioxide (CO2)
-------------------------------------	---

**5.2 Special hazards arising from the substance or mixture**

<b>Specific hazards during</b>	Dangerous gases or fumes may occur in case of fire.
--------------------------------	---

**ISOFOL 20**

Version: 4.10

Revision Date 2012/03/29

**firefighting****5.3 Advice for firefighters****Special protective equipment for firefighters**

Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures****Personal precautions**

Handle in accordance with good industrial hygiene and safety practice. Danger of slipping after spill or leakage.

**6.2 Environmental precautions****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**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**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**

Handle in accordance with good industrial hygiene and safety practice. Provide sufficient air exchange and/or exhaust in work rooms.

**Advice on protection against fire and explosion**

The product is flammable but not readily ignited. 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****Storage class (TRGS 510)**

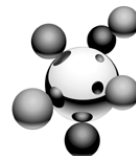
10-13: German Storage Class 10 to 13

**Other data**

Stable under normal conditions.

**7.3 Specific end uses****Specific use(s)**

This information is not available.

**ISOFOL 20**

Version: 4.10

Revision Date 2012/03/29

---

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

---

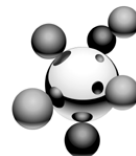
**8.1 Control parameters****COMPONENTS WITH WORKPLACE CONTROL PARAMETERS****NATIONAL OCCUPATIONAL EXPOSURE LIMITS**

no data available

**EUROPEAN OCCUPATIONAL EXPOSURE LIMITS**

no data available

**DERIVED NO EFFECT LEVEL (DNEL)****2-octyldodecan-1-ol**Workers, dermal, Acute/short-term exposure - systemic effects:  
Not relevant / not applicableWorkers, Inhalation, Acute/short-term exposure - systemic effects:  
Not relevant / not applicableWorkers, dermal, Acute/short-term exposure - local effects:  
Not relevant / not applicableWorkers, Inhalation, Acute/short-term exposure - local effects:  
Not relevant / not applicableWorkers, dermal, long-term exposure - systemic effects: 35 mg/kg  
based on body weight and dayWorkers, Inhalation, long-term exposure - systemic effects: 247 mg/m<sup>3</sup>Workers, dermal, long-term exposure - local effects:  
Not relevant / not applicableWorkers, Inhalation, long-term exposure - local effects:  
Not relevant / not applicableConsumers, dermal, Acute/short-term exposure - systemic effects:  
Not relevant / not applicableConsumers, Inhalation, Acute/short-term exposure - systemic effects:  
Not relevant / not applicableConsumers, Oral, Acute/short-term exposure - systemic effects:  
Not relevant / not applicableConsumers, dermal, Acute/short-term exposure - local effects:  
Not relevant / not applicableConsumers, Inhalation, Acute/short-term exposure - local effects:  
Not relevant / not applicableConsumers, dermal, long-term exposure - systemic effects: 21 mg/kg  
based on body weight and dayConsumers, Inhalation, long-term exposure - systemic effects: 73 mg/m<sup>3</sup>Consumers, Oral, long-term exposure - systemic effects: 21 mg/kg  
based on body weight and dayConsumers, dermal, long-term exposure - local effects:  
Not relevant / not applicableConsumers, Inhalation, long-term exposure - local effects:  
Not relevant / not applicable



## ISOFOL 20

Version: 4.10

Revision Date 2012/03/29

## PREDICTED NO EFFECT CONCENTRATION (PNEC)

<b>2-octyldodecan-1-ol</b>	Fresh water:	Not relevant / not applicable
	Marine water:	Not relevant / not applicable
	intermittent release:	Not relevant / not applicable
	treatment plant:	Not relevant / not applicable
	Fresh water sediment:	Not relevant / not applicable
	Marine sediment:	Not relevant / not applicable
	Soil:	Not relevant / not applicable
	food:	Not relevant / not applicable

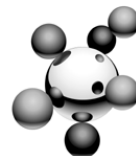
## 8.2 Exposure controls

## PERSONAL PROTECTIVE EQUIPMENT

<b>Respiratory protection</b>	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.
<b>Hand protection</b>	<p>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).</p> <p><b>gloves suitable for permanent contact:</b>  Material: Nitrile rubber/nitrile latex  Break through time: &gt;= 480 min  Material thickness: 0.35 mm</p> <p>Material: butyl-rubber  Break through time: &gt;= 480 min  Material thickness: 0.5 mm</p>
<b>Eye protection</b>	Safety glasses
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Protective measures</b>	Avoid contact with the skin and the eyes.

## ENVIRONMENTAL EXPOSURE CONTROLS

<b>General advice</b>	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.
-----------------------	---

**ISOFOL 20**

Version: 4.10

Revision Date 2012/03/29

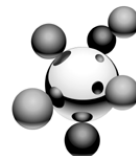
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1 Information on basic physical and chemical properties**

<b>Physical state</b>	liquid; 20 °C; 1,013 hPa
<b>Form</b>	liquid
<b>Colour</b>	colourless
<b>Odour</b>	characteristic
<b>Odour Threshold</b>	no data available
<b>pH</b>	not applicable
<b>Melting point/range</b>	ca. -4 - 1 °C
<b>Flash point</b>	ca. > 170 °C; DIN 51758
<b>Evaporation rate</b>	no data available
<b>Flammability (solid, gas)</b>	not auto-flammable
<b>Lower explosion limit</b>	no data available
<b>Upper explosion limit</b>	no data available
<b>Vapour pressure</b>	ca. < 1.000 hPa; 20 °C
<b>Relative vapour density</b>	no data available
<b>Density</b>	ca. 0.8 g/cm <sup>3</sup> ; 20 °C; DIN 51757
<b>Relative density</b>	no data available
<b>Bulk density</b>	no data available
<b>Water solubility</b>	insoluble
<b>Partition coefficient: n-octanol/water</b>	log Pow: > 8; 23 °C; pH: 7.1; OECD Test Guideline 117
<b>Ignition temperature</b>	258 °C
<b>Autoignition temperature</b>	not auto-flammable
<b>Viscosity, dynamic</b>	ca. 60 mPas; 20 °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**

<b>Additional advice</b>	This sheet describes a group of products. It only contains safety-relevant data. For specific data, see Product Information sheet.
--------------------------	--

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

**ISOFOL 20**

Version: 4.10

Revision Date 2012/03/29

---

<b>Note</b>	Stable under recommended storage conditions.
<b>10.2 Chemical stability</b>	
<b>Note</b>	No decomposition if stored and applied as directed.
<b>10.3 Possibility of hazardous reactions</b>	
<b>Hazardous reactions</b>	Stable under normal conditions.
<b>10.4 Conditions to avoid</b>	
<b>Conditions to avoid</b>	Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.
<b>10.5 Incompatible materials to avoid</b>	
<b>Materials to avoid</b>	None known.;
<b>10.6 Hazardous decomposition products</b>	
<b>Thermal decomposition</b>	> 350 °C

**SECTION 11: TOXICOLOGICAL INFORMATION**

---

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

<b>Acute oral toxicity</b>	LD50 rat: > 2,000 mg/kg Based on available data, the classification criteria are not met.
<b>Acute inhalation toxicity</b>	study scientifically unjustified Data are available from alternate exposure routes.
<b>Acute dermal toxicity</b>	LD50 rabbit: > 2 ml/kg

**Skin corrosion/irritation**

<b>Skin irritation</b>	rabbit: slightly irritating Based on available data, the classification criteria are not met.
<b>Human experience - Skin contact</b>	not irritating The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). 2-Butyloctan-1-ol

**Serious eye damage/eye irritation**

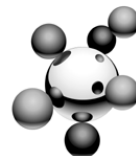
<b>Eye irritation</b>	rabbit: slightly irritating Based on available data, the classification criteria are not met.
-----------------------	--

**Respiratory or skin sensitization**

<b>Sensitisation</b>	Maximisation Test guinea pig: not sensitizing (literature value) Based on available data, the classification criteria are not met.
----------------------	--

**Germ cell mutagenicity**

<b>Genotoxicity in vitro</b>	In vitro tests did not show mutagenic effects (literature value) Category approach
<b>Genotoxicity in vivo</b>	The study is not necessary. In vitro tests did not show mutagenic effects



## ISOFOL 20

Version: 4.10

Revision Date 2012/03/29

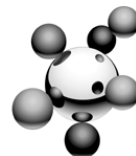
	Category approach
<b>Remarks</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	
<b>Carcinogenicity</b>	The study is not necessary. Justification: The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.
<b>Reproductive toxicity</b>	
<b>Reproductive toxicity</b>	Two-generation reproductive toxicity; OECD Test Guideline 416 Testing proposal
<b>Teratogenicity</b>	rat; Oral; 20 days NOAEL: 1,000 mg/kg (based on body weight and day) NOAEL (dam): 1,000 mg/kg (based on body weight and day); OECD Test Guideline 414
<b>Remarks-Teratogenicity</b>	Based on available data, the classification criteria are not met.
<b>STOT - single exposure</b>	
<b>Remarks</b>	The substance or mixture is not classified as specific target organ toxicant, single exposure.
<b>STOT - repeated exposure</b>	
<b>Remarks</b>	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
<b>Repeated dose toxicity</b>	rat; Oral; Subchronic toxicity NOAEL: 839.6 mg/kg (based on body weight and day) (literature value)
<b>Aspiration hazard</b>	
<b>Aspiration toxicity</b>	not applicable
<b>Further information</b>	
<b>Toxicological information</b>	The substance is metabolised and excreted. Bioaccumulation is unlikely.

## SECTION 12: ECOLOGICAL INFORMATION

## 12.1 Toxicity

<b>Toxicity to fish</b>	LC50 (48 h) Leuciscus idus (Golden orfe): > 100 mg/l; static test; DIN 38412 Category approach
<b>Toxicity to fish - Chronic toxicity</b>	The study is not necessary. Justification: Substance is readily biodegradable and has a low aquatic toxicity.
<b>Toxicity to daphnia and other aquatic invertebrates</b>	EC50 (48 h) Daphnia magna (Water flea); static test; OECD Test Guideline 202 In the range of water solubility not toxic under test conditions. Category approach
<b>Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity</b>	The study is not necessary. Justification: Substance is readily biodegradable and has a low aquatic toxicity.



**ISOFOL 20**

Version: 4.10

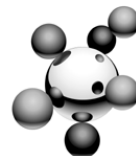
Revision Date 2012/03/29

<b>Toxicity to aquatic plants</b>	ErC50 (72 h) <i>Desmodesmus subspicatus</i> (green algae); static test; DIN 38412; In the range of water solubility not toxic under test conditions.
<b>Toxicity to bacteria</b>	EC0 (3 h) activated sludge of a predominantly domestic sewage: > 1,000 mg/l; Respiration inhibition; OECD Test Guideline 209
<b>Toxicity to soil dwelling organisms</b>	The study is not necessary. Justification: Readily biodegradable. unlikely direct and indirect exposure of the soil compartment
<b>Toxicity to terrestrial flora</b>	The study is not necessary. Justification: Readily biodegradable. unlikely direct and indirect exposure of the soil compartment
<b>Toxicity for other terrestrial non-mammalian fauna</b>	The study is not necessary. Justification: Readily biodegradable. unlikely direct and indirect exposure of the soil compartment
<b>12.2 Persistence and degradability</b>	
<b>Biodegradability</b>	Readily biodegradable; > 60 %; 28 d; aerobic; OECD Test Guideline 310
<b>12.3 Bioaccumulative potential</b>	
<b>Bioaccumulation</b>	Bioconcentration factor (BCF): 53 - 539; calculated (literature value) Bioaccumulation is unlikely.
<b>12.4 Mobility in soil</b>	
<b>Mobility</b>	Adsorption/Soil/Sewage sludge; log Koc: 8.92 - 9.79; OECD Test Guideline 121 immobile strong adsorption to soil The substance and its relevant degradation products decompose rapidly.
<b>12.5 Results of PBT and vPvB assessment</b>	
<b>Results of PBT assessment</b>	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). Based on available data, the classification criteria are not met.
<b>12.6 Other adverse effects</b>	
<b>General advice</b>	None known.

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

<b>Product</b>	Can be incinerated, when in compliance with local regulations.
<b>waste code of the European Union: EWC</b>	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**



## ISOFOL 20

Version: 4.10

Revision Date 2012/03/29

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

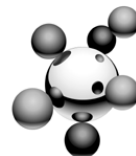
Remarks No information available.

## 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** list entry in the directive: Directive 96/82/EC does not apply



## ISOFOL 20

Version: 4.10

Revision Date 2012/03/29

## substances

## NOTIFICATION STATUS

US. Toxic Substances Control Act	TSCA	y (positive listing)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 144)	DSL	y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	NZIOC	y (positive listing)
Japan. Kashin-Hou Law List	ENCS (JP)	y (positive listing)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	y (positive listing)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	y (positive 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

## 2-octyldodecan-1-ol

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

## SECTION 16: OTHER INFORMATION

## Safety datasheet sections which have been updated:

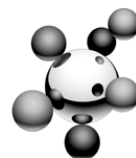
12. Ecological information

## 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)



## ISOFOL 20

Version: 4.10

Revision Date 2012/03/29

---

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.**

**2-octyldodecan-1-ol**

[http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/00000000072\\_EN\\_01.pdf](http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/00000000072_EN_01.pdf)