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	**ISOFOL 20**
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.

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

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	Take off all contaminated clothing immediately.
In case of eye contact	Rinse with water.
If swallowed	Call a physician immediately.

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	Dangerous gases or fumes may occur in case of fire.

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.

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 applicable
	Workers, Inhalation, Acute/short-term exposure - systemic effects: Not relevant / not applicable
	Workers, dermal, Acute/short-term exposure - local effects: Not relevant / not applicable
	Workers, Inhalation, Acute/short-term exposure - local effects: Not relevant / not applicable
	Workers, dermal, long-term exposure - systemic effects: 35 mg/kg based on body weight and day
	Workers, Inhalation, long-term exposure - systemic effects: 247 mg/m3
	Workers, dermal, long-term exposure - local effects: Not relevant / not applicable
	Workers, Inhalation, long-term exposure - local effects: Not relevant / not applicable
	Consumers, dermal, Acute/short-term exposure - systemic effects: Not relevant / not applicable
	Consumers, Inhalation, Acute/short-term exposure - systemic effects: Not relevant / not applicable
	Consumers, Oral, Acute/short-term exposure - systemic effects: Not relevant / not applicable
	Consumers, dermal, Acute/short-term exposure - local effects: Not relevant / not applicable
	Consumers, Inhalation, Acute/short-term exposure - local effects: Not relevant / not applicable
	Consumers, dermal, long-term exposure - systemic effects: 21 mg/kg based on body weight and day
	Consumers, Inhalation, long-term exposure - systemic effects: 73 mg/m3
	Consumers, Oral, long-term exposure - systemic effects: 21 mg/kg based on body weight and day
	Consumers, dermal, long-term exposure - local effects: Not relevant / not applicable
	Consumers, Inhalation, long-term exposure - local effects: Not relevant / not applicable

PREDICTED NO EFFECT CONCENTRATION (PNEC)

2-octyldodecan-1-ol	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

Respiratory protection	No personal respiratory protective equipment normally required. In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.
Hand protection	The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time., Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). **gloves suitable for permanent contact:** Material: Nitrile rubber/nitrile latex Break through time: >= 480 min Material thickness: 0.35 mm Material: butyl-rubber Break through time: >= 480 min Material thickness: 0.5 mm
Eye protection	Safety glasses
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.
Protective measures	Avoid contact with the skin and the eyes.

ENVIRONMENTAL EXPOSURE CONTROLS

General advice	Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	liquid; 20 °C; 1,013 hPa
Form	liquid
Colour	colourless
Odour	characteristic
Odour Threshold	no data available
pH	not applicable
Melting point/range	ca. -4 - 1 °C
Flash point	ca. > 170 °C; DIN 51758
Evaporation rate	no data available
Flammability (solid, gas)	not auto-flammable
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	ca. < 1.000 hPa; 20 °C
Relative vapour density	no data available
Density	ca.0.8 g/cm3; 20 °C; DIN 51757
Relative density	no data available
Bulk density	no data available
Water solubility	insoluble
Partition coefficient: n-octanol/water	log Pow: > 8; 23 °C; pH: 7.1; OECD Test Guideline 117
Ignition temperature	258 °C
Autoignition temperature	not auto-flammable
Viscosity, dynamic	ca. 60 mPas; 20 °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

Additional advice	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

Note	Stable under recommended storage conditions.

10.2 Chemical stability

Note	No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	Stable under normal 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

Thermal decomposition	> 350 °C

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

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

Skin corrosion/irritation

Skin irritation	rabbit: slightly irritating Based on available data, the classification criteria are not met.
Human experience - Skin contact	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

Eye irritation	rabbit: slightly irritating Based on available data, the classification criteria are not met.

Respiratory or skin sensitization

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

Germ cell mutagenicity

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

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

Carcinogenicity

Carcinogenicity	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.

Reproductive toxicity

Reproductive toxicity	Two-generation reproductive toxicity; OECD Test Guideline 416 Testing proposal
Teratogenicity	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
Remarks-Teratogenicity	Based on available data, the classification criteria are not met.

STOT - single exposure

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

STOT - repeated exposure

Remarks	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Repeated dose toxicity	rat; Oral; Subchronic toxicity NOAEL: 839.6 mg/kg (based on body weight and day) (literature value)

Aspiration hazard

Aspiration toxicity	not applicable

Further information

Toxicological information	The substance is metabolised and excreted. Bioaccumulation is unlikely.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	LC50 (48 h) Leuciscus idus (Golden orfe): > 100 mg/l; static test; DIN 38412 Category approach
Toxicity to fish - Chronic toxicity	The study is not necessary. Justification: Substance is readily biodegradable and has a low aquatic toxicity.
Toxicity to daphnia and other aquatic invertebrates	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
Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity	The study is not necessary. Justification: Substance is readily biodegradable and has a low aquatic toxicity.

Toxicity to aquatic plants	ErC50 (72 h) Desmodesmus subspicatus (green algae); static test; DIN 38412; In the range of water solubility not toxic under test conditions.
Toxicity to bacteria	EC0 (3 h) activated sludge of a predominantly domestic sewage: > 1,000 mg/l; Respiration inhibition; OECD Test Guideline 209
Toxicity to soil dwelling organisms	The study is not necessary. Justification: Readily biodegradable. unlikely direct and indirect exposure of the soil compartment
Toxicity to terrestrial flora	The study is not necessary. Justification: Readily biodegradable. unlikely direct and indirect exposure of the soil compartment
Toxicity for other terrestrial non-mammalian fauna	The study is not necessary. Justification: Readily biodegradable. unlikely direct and indirect exposure of the soil compartment

12.2 Persistence and degradability

Biodegradability	Readily biodegradable; > 60 %; 28 d; aerobic; OECD Test Guideline 310

12.3 Bioaccumulative potential

Bioaccumulation	Bioconcentration factor (BCF): 53 - 539; calculated (literature value) Bioaccumulation is unlikely.

12.4 Mobility in soil

Mobility	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.

12.5 Results of PBT and vPvB assessment

Results of PBT assessment	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). Based on available data, the classification criteria are not met.

12.6 Other adverse effects

General advice	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

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

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)

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/000000000072_EN_01.pdf