

Version: 11.07

Revision Date 06.02.2019

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

1.1 Product identifier	
Trade name	ISOFOL 12
INCI REACH No.	Butyloctanol 01-2119978234-31-0000
Substance name (REACH / CLP)	2-Butyloctan-1-ol
1.2 Relevant identified uses of the substa	nce or mixture and uses advised against
Use	raw material for cosmetic 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 Solvent
Uses advised against	raw material for welding and soldering aids
1.3 Details of the supplier of the safety da	ata 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)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)	
Short-term (acute) aquatic hazard Category 1	Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 2	Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Version: 11.07

Hazard pictograms	
Signal word	Warning
Hazard statements	
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
Precautionary statements	
P273	Avoid release to the environment.
P391	Collect spillage.
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 substance in the meaning of regulation (EC) 1907/2006.

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

2-Butyloctan-1-ol

EC-No.: 223-470-0	Index-No.:		CAS-No.: 3913-02-8
REACH No.: 01-2119978234-31-0000			
Substance name (REACH / CLP): 2-Butyloctan-1-ol			
Classification (Regulation	Aquatic Acute	1	H400
(EC) No 1272/2008):	Aquatic Chronic	2	H411

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	Take off all contaminated clothing immediately.
In case of eye contact	Rinse with water.



Version: 11.07

Revision Date 06.02.2019

If swallowed	Call a physician immediately.
4.2 Most important symptoms and effe	cts, 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 medica	al 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 su	ubstance 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	Use personal protective equipment. Wear self-contained breathing apparatus for firefighting 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 contain	ment 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.



Version: 11.07

Revision Date 06.02.2019

	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, includ	ing any incompatibilities
Storage class (TRGS 510)	10-13: German Storage Class 10 to 13
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

DERIVED NO EFFECT LEVEL (DNEL)

Substance name: 2-Butyloctan-1-ol

Not relevant / not applicable

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance name: 2-Butyloctan-1-ol		
Environmental Compartment	Value	Note
Fresh water	0,00014 mg/l	
Marine water	0,000014 mg/l	
intermittent release	0,014 mg/l	
treatment plant	10 mg/l	
Fresh water sediment		Not relevant / not applicable
Marine sediment		Not relevant / not applicable
Soil		Not relevant / not applicable
food		Not relevant / not applicable



Version: 11.07

Revision Date 06.02.2019

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 Layer thickness: 0,35 mm		
	Material: butyl-rubber Break through time: >= 480 min Layer thickness: 0,5 mm		
	unsuitable gloves Material: Natural rubber/natural latex		
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	
рН	Not applicable	
Melting point/range	-75 °C	



Version: 11.07

Boiling point/boiling range	ca. 243 °C
Flash point	ca. 120 °C; DIN 51758
Evaporation rate	No data available
Flammability (solid, gas)	not applicable (liquid)
Lower explosion limit	No data available
Lower explosion minit	
Upper explosion limit	No data available
Vapour pressure	0,081 hPa; 38 °C
Relative vapour density	No data available
Density	ca.0,8 g/cm3; 20 °C; DIN 51757
Relative density	No data available
Water solubility	0,001 g/l; 23 °C; ASTM E 1148
Partition coefficient: n- octanol/water	log Pow: 5,5; 23 °C; pH: 5,7; OECD Test Guideline 117
Ignition temperature	ca. 255 °C
Auto-ignition temperature	not auto-flammable
Viscosity, dynamic	ca. 23 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	

None known.

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 produc Thermal decomposition	ts > 350 °C



7/13

ISOFOL 12

Version: 11.07

Revision Date 06.02.2019

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effect	s
Acute toxicity	
Acute oral toxicity	2-Butyloctan-1-ol: LD50 Rat: > 5.000 mg/kg; OECD Test Guideline 401 Based on available data, the classification criteria are not met.
Acute inhalation toxicity	2-Butyloctan-1-ol: study scientifically unjustified Negligible or unlikely exposure pathways Data are available from alternate exposure routes.
Acute dermal toxicity	2-Butyloctan-1-ol: LD50 Rabbit: > 2 ml/kg Target Organs: Skin Symptoms: Local irritation Category approach Based on available data, the classification criteria are not met.
Skin corrosion/irritation	
Skin irritation	2-Butyloctan-1-ol: Human: not irritating; Patch Test 48 Hrs.
	2-Butyloctan-1-ol: Rabbit: slightly irritating; OECD Test Guideline 404 Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	
Eye irritation	2-Butyloctan-1-ol: Rabbit: slightly irritating; OECD Test Guideline 405 Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	
Sensitisation	2-Butyloctan-1-ol: Maximisation Test Guinea pig: not sensitizing; OECD Test Guideline 406 Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity in vitro	2-Butyloctan-1-ol: In vitro tests did not show mutagenic effects Category approach
Genotoxicity in vivo	2-Butyloctan-1-ol: The study is not necessary. Justification: In vitro tests did not show mutagenic effects
Remarks	2-Butyloctan-1-ol: Based on available data, the classification criteria are not met.
Carcinogenicity	
Carcinogenicity	2-Butyloctan-1-ol: This information is not available.
Reproductive toxicity	
Reproductive toxicity	2-Butyloctan-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)
Print Date 03.12.2019	00000002766 CONEUSDBUS E

sasol

sion: <i>11</i> .07	Revision Date 06.02.2019
	The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Docosan-1-ol
RemarksReproductive toxicity	2-Butyloctan-1-ol: Based on available data, the classification criteria are not met.
Teratogenicity	2-Butyloctan-1-ol: Rat; Oral NOAEL: 1.000 mg/kg (based on body weight and day) NOAEL (pregnant female): 1.000 mg/kg (based on body weight and day); OE Test Guideline 414 (literature value) Category approach
	2-Butyloctan-1-ol: Rabbit; Oral NOAEL: > 2.000 mg/kg (based on body weight and day) NOAEL (pregnant female): > 2.000 mg/kg (based on body weight and day) (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Docosan-1-ol
Remarks-Teratogenicity	2-Butyloctan-1-ol: Based on available data, the classification criteria are not met.
STOT - single exposure	
Remarks	2-Butyloctan-1-ol: The substance or mixture is not classified as specific target organ toxicant, sir exposure.
STOT - repeated exposure	
Remarks	2-Butyloctan-1-ol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Repeated dose toxicity	2-Butyloctan-1-ol: Rat; Oral; 90-day NOAEL: 839,6 mg/kg (based on body weight and day); OECD Test Guideline Category approach
Aspiration hazard	
Aspiration toxicity	2-Butyloctan-1-ol:

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to daphnia and other	2-Butyloctan-1-ol:	
Toxicity to fish - Chronic toxicity	2-Butyloctan-1-ol: The study is not necessary. Justification: exposure considerations	
Toxicity to fish	2-Butyloctan-1-ol: LC50 (96 h) Oncorhynchus mykiss (rainbow trout): > 0,1 - 1 mg/l ; semi-static OECD Test Guideline 203	test;
	Toxicity to fish - Chronic toxicity	Toxicity to fish - Chronic toxicity LC50 (96 h) Oncorhynchus mykiss (rainbow trout): > 0,1 - 1 mg/l; semi-static OECD Test Guideline 203 Toxicity to fish - Chronic toxicity 2-Butyloctan-1-ol: The study is not necessary. Justification: exposure considerations



Version: <i>11</i> .07	Revision Date 06.02.2019
aquatic invertebrates	EC50 (48 h) Daphnia magna (Water flea): > 0,1 - 1 mg/l ; static test; OECD Test Guideline 202
Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity	2-Butyloctan-1-ol: NOEC (21 d) Daphnia magna (Water flea): 0,014 mg/l; reproduction rate; semi- static test; OECD Test Guideline 211; (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: dodecan-1-ol
Toxicity to aquatic plants	2-Butyloctan-1-ol: ErC50 (72 h) Pseudokirchneriella subcapitata (green algae): > 1 - 10 mg/l ; Growth rate; OECD Test Guideline 201
	2-Butyloctan-1-ol: NOEC (72 h) Pseudokirchneriella subcapitata (green algae): 0,38 mg/l ; Growth rate; static test; OECD Test Guideline 201
Toxicity to bacteria	2-Butyloctan-1-ol: (3 h) activated sludge of a predominantly domestic sewage: 1.000 mg/l; Respiration inhibition; OECD Test Guideline 209 Category approach
Toxicity to soil dwelling organisms	2-Butyloctan-1-ol: The study is not necessary. Justification: unlikely direct and indirect exposure of the soil compartment Readily biodegradable.
Toxicity to terrestrial flora	2-Butyloctan-1-ol: The study is not necessary. Justification: unlikely direct and indirect exposure of the soil compartment Readily biodegradable.
Toxicity for other terrestrial non-mammalian fauna	2-Butyloctan-1-ol: The study is not necessary. Justification: unlikely direct and indirect exposure of the soil compartment
12.2 Persistence and degradability	
Biodegradability	2-Butyloctan-1-ol: rapidly biodegradable; > 60 %; 28 d; aerobic; OECD Test Guideline 310 Category approach
12.3 Bioaccumulative potential	
Bioaccumulation	2-Butyloctan-1-ol: Bioconcentration factor (BCF): 84; QSAR Bioaccumulation is unlikely.
12.4 Mobility in soil	
Mobility	2-Butyloctan-1-ol: immobile The substance and its relevant degradation products decompose rapidly.
12.5 Results of PBT and vPvB assessi	nent
Results of PBT assessment	2-Butyloctan-1-ol: Based on available data, the classification criteria are not met.
12.6 Other adverse effects	
General advice	2-Butyloctan-1-ol: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.



Version: 11.07

Revision Date 06.02.2019

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	3082	
RID	3082	
ADN	3082	
IMDG	3082	
ICAO/IATA	3082	
14.2 Proper shipping name		
ADR	ENVIRONMENTALLY HAZARDOUS SUBSTA 1-ol)	ANCE, LIQUID, N.O.S. (2-Butyloctan-
RID	ENVIRONMENTALLY HAZARDOUS SUBSTA 1-ol)	ANCE, LIQUID, N.O.S. (2-Butyloctan-
ADN	ENVIRONMENTALLY HAZARDOUS SUBST/ 1-ol)	ANCE, LIQUID, N.O.S. (2-Butyloctan-
IMDG	ENVIRONMENTALLY HAZARDOUS SUBST/ 1-ol)	ANCE, LIQUID, N.O.S. (2-Butyloctan-
ICAO/IATA	ENVIRONMENTALLY HAZARDOUS SUBSTA 1-ol)	ANCE, LIQUID, N.O.S. (2-Butyloctan-
14.3 Transport hazard class		
ADR	9	
RID	9	
ADN	9	
IMDG	9	
ICAO/IATA	9	
14.4 Packing group		
ADR	III	
RID	III	
ADN	III	
IMDG	III	
ICAO/IATA	III	
14.5 Environmental hazards		
ADR	Environmentally hazardous	yes
RID	Environmentally hazardous	yes



Version: 11.07

Revision Date 06.02.2019

ADN	Environmentally hazardous	yes
IMDG	Marine pollutant	yes
ICAO/IATA	Environmentally hazardous	yes
14.6 Special precautions for user		
ADR	Hazard Identification Number	90
	Labels	9
	Tunnel restriction code	(-)
IMDG	Labels 9	
	EmS Number 1 F-A	
	EmS Number 2 S-F	
ICAO/IATA	Labels	9MI

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

Legislation on the control of	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on
major-accident hazards	the control of major-accident hazards involving dangerous substances.
involving dangerous	list entry in the directive:: ENVIRONMENTAL HAZARDS; E1
substances	Qualifying quantity 1: 100 t; Qualifying quantity 2: 200 t;
Directive 1999/13/EC (VOC)	The question whether this product or components thereof has/have to be considered as volatile organic compound/compounds (VOC) as defined by Directive 1999/13/EU can only be answered when detailed knowledge on the use as solvent in connection with certain activities in certain facilities is available.



Version: 11.07

Revision Date 06.02.2019

NOTIFICATION STATUS		
Switzerland. Consolidated Inventory	CH INV	listed (product or constituents are listed)
US. Toxic Substances Control Act	TSCA	listed (product or constituents are listed)
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	DSL	listed (product or constituents are listed)
Australia. Industrial Chemical (Notification and Assessment) Act	AICS	listed (product or constituents are listed)
Japan. Kashin-Hou Law List	ENCS (JP)	listed (product or constituents are listed)
Japan. Industrial Safety & Health Law (ISHL) List	ISHL (JP)	listed (product or constituents are listed)
Korea. Existing Chemicals Inventory (KECI)	KECI (KR)	listed (product or constituents are listed)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	PICCS (PH)	not listed (product or constituents are not listed)
China. Inventory of Existing Chemical Substances (IECSC)	INV (CN)	listed (product or constituents are listed)

Please note: the names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in chapter 3.

15.2 Chemical safety assessment

2-Butyloctan-1-ol

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

SECTION 16: OTHER INFORMATION

ŀ	1400	
ŀ	411	

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Safety datasheet sections which have been updated:

14. Transport 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.
----------------------	--



Version: 11.07

Revision Date 06.02.2019

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	International All Mansport Association
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	•
KECI	International Union of Pure and Applied Chemistry
LC	Korea Existing Chemicals Inventory
LO	Lethal Concentration,% Lethal Dose,%
LD MARPOL	
NDSL	International Convention for the Prevention of Pollution From Ships Non-Domestic Substances List
NOAEL	no observable adverse effect level
NOAEL NOEL/NOEC	No Observable adverse effect level/ No Observed-effect level/concentration
NZIOC	
OECD	New Zealand Inventory of Chemicals
PBT	Organisation for Economic Co-operation and Development 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 TSCA	Technische Regeln für Gefahrstoffe Toxic Substances Control Act
vPvB WGK	very persistent, very bioaccumulative
WGN	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-Butyloctan-1-ol

http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/00000000067_EN_01.pdf