

**MARLON OS 80H**

Version: 2.01

Revision Date 31.10.2018

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

Trade name	MARLON OS 80H
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**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Use	Metal extraction, refining and processing of metals
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Uses advised against	
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**1.3 Details of the supplier of the safety data sheet**

Company	SASOL Germany GmbH Anckelmannsplatz 1 20537 Hamburg
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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
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E-mail address	msds-info.germany@de.sasol.com
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**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)**

Acute toxicity Category 4 (Oral)	Harmful if swallowed.
Serious eye damage Category 1	Causes serious eye damage.
Short-term (acute) aquatic hazard Category 1	Very toxic to aquatic life.
Long-term (chronic) aquatic hazard Category 1	Very toxic to aquatic life with long lasting effects.

**2.2 Label elements****Labelling (REGULATION (EC) No 1272/2008)****Hazard pictograms**

Signal word	Danger
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**Hazard statements**

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H302	Harmful if swallowed.
H318	Causes serious eye damage.
H410	Very toxic to aquatic life with long lasting effects.

### Precautionary statements

P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P391	Collect spillage.
P501	Dispose of contents/ container to an approved waste disposal plant.

### Hazardous components which must be listed on the label:

- Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol

### 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.

### 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

#### Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol

<b>content:</b> >= 70 - < 90 %	<b>component type:</b> Active ingredient	
<b>EC-No.:</b> 946-448-9	<b>Index-No.:</b>	<b>CAS-No.:</b>
<b>REACH No.:</b> 01-2120769724-42-0000		
<b>Substance name (REACH / CLP):</b> Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol		
<b>Classification (Regulation (EC) No 1272/2008):</b>	Acute Tox. 4 (Oral)	H302
	Eye Dam. 1	H318
	Aquatic Acute	1 H400
	Aquatic Chronic	1 H410

#### 2-Butyloctan-1-ol

<b>content:</b> >= 20 - < 25 %	<b>component type:</b> Active ingredient	
<b>EC-No.:</b> 223-470-0	<b>Index-No.:</b>	<b>CAS-No.:</b> 3913-02-8
<b>REACH No.:</b> 01-2119978234-31-0000		
<b>Substance name (REACH / CLP):</b> 2-Butyloctan-1-ol		
<b>Classification (Regulation (EC) No 1272/2008):</b>	Aquatic Acute	1 H400
	Aquatic Chronic	2 H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

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**SECTION 4: FIRST AID MEASURES**

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**4.1 Description of first aid measures**

<b>General advice</b>	Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the label where possible).
<b>If inhaled</b>	Provide fresh air.
<b>In case of skin contact</b>	Wash off with plenty of water.
<b>In case of eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Protect unharmed eye.
<b>If swallowed</b>	Rinse mouth. Call a physician immediately. Do NOT induce vomiting.

**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.
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**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.
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**SECTION 5: FIREFIGHTING MEASURES**

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**5.1 Extinguishing media**

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

<b>Specific hazards during firefighting</b>	Dangerous gases or fumes may occur in case of fire. Exposure to decomposition products may be a hazard to health.
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**5.3 Advice for firefighters**

<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus for firefighting if necessary.
<b>Further information</b>	Cool closed containers exposed to fire with water spray. Closed container may rupture if strongly heated. In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**6.1 Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Use personal protective equipment.
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**6.2 Environmental precautions**

<b>Environmental precautions</b>	Should not be released into the environment.
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**6.3 Methods and materials for containment and cleaning up**

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**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**Wear personal protective equipment.  
Avoid contact with skin and eyes.**Advice on protection against fire and explosion**

No special protective measures against fire required.

**7.2 Conditions for safe storage, including any incompatibilities****Further information on storage conditions**

loading temperature 20 °C

**Storage class (TRGS 510)**

10: Combustible liquids

**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: Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol			
End Use	Exposure routes	Value	Note
Workers	Inhalation, long-term exposure - systemic effects	6 mg/m <sup>3</sup>	
	dermal, long-term exposure - systemic effects	85 mg/kg Body weight/day	
	dermal, Acute/short-term exposure - systemic effects		Not relevant / not applicable
	dermal, long-term exposure - local effects		Not relevant / not applicable

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	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
Consumers	Inhalation, long-term exposure - systemic effects	1,5 mg/m <sup>3</sup>	
	dermal, long-term exposure - systemic effects	42,5 mg/kg Body weight/day	
	dermal, Acute/short-term exposure - systemic effects		Not relevant / not applicable
	dermal, long-term exposure - local effects		Not relevant / not applicable
	dermal, Acute/short-term exposure - local effects		Not relevant / not applicable
	Oral, long-term exposure - systemic effects	0,425 mg/kg Body weight/day	

**Substance name: 2-Butyloctan-1-ol**

Not relevant / not applicable

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## 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

Substance name: Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol		
Environmental Compartment	Value	Note
Fresh water	0,0024 mg/l	
Marine water	0,0024 mg/l	
Fresh water sediment	7,77mg/kg dry mass	
Marine sediment	0,777mg/kg dry mass	
treatment plant	0,126 mg/l	
Soil	0,154mg/kg dry mass	
Air		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: butyl-rubber  
Break through time: >= 480 min  
Layer thickness: >= 0,7 mm

## gloves suitable for splash protection:

Material: Nitrile rubber/nitrile latex  
Break through time: >= 30 min

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Layer thickness:  $\geq 0,4$  mm

<b>Eye protection</b>	Tightly fitting safety goggles
<b>Skin and body protection</b>	Wear suitable protective equipment.
<b>Hygiene measures</b>	Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice.
<b>Protective measures</b>	Wear suitable gloves and eye/face protection.

### ENVIRONMENTAL EXPOSURE CONTROLS

<b>General advice</b>	Should not be released into the environment.
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## 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>	viscous liquid
<b>Colour</b>	clear
<b>Odour</b>	characteristic
<b>Odour Threshold</b>	No valid method available
<b>pH</b>	7 - 9,5; 5 % active substance; DIN EN 1262
<b>pour point</b>	-24 °C; ASTM D97
<b>Initial boiling point and boiling range</b>	> 250 °C
<b>Flash point</b>	> 120 °C
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	not applicable (liquid)
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Relative vapour density</b>	> 1
<b>Density</b>	0,9860 g/cm <sup>3</sup> ; 25 °C; ASTM D 7042
<b>Water solubility</b>	dispersible
<b>Partition coefficient: n-octanol/water</b>	not applicable (mixture)
<b>Ignition temperature</b>	> 200 °C
<b>Auto-ignition temperature</b>	not auto-flammable
<b>Viscosity, kinematic</b>	4190 mm <sup>2</sup> /s; 40 °C; ASTM D 7042
<b>Explosive properties</b>	not expected based on structure and functional groups

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**Oxidizing properties** not expected based on structure and functional groups

**9.2 Other data**

**Additional advice** no data

**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** No dangerous reaction known under conditions of normal use.

**10.4 Conditions to avoid**

**Conditions to avoid** Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation.

**10.5 Incompatible materials to avoid**

**Materials to avoid** Strong oxidizing agents; hydrogen peroxide

**10.6 Hazardous decomposition products**

**Hazardous decomposition products** Stable under normal conditions.

**Thermal decomposition** Stable under normal conditions.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute toxicity**

**Acute oral toxicity** Acute toxicity estimate : 588,24 mg/kg; Calculation method

Acute toxicity estimate : 625 mg/kg; Calculation method

**Acute oral toxicity**

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:

LD50 Rat: > 300 - 2.000 mg/kg; OECD Test Guideline 420

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

Test substance: Alkylbenzenesulfonicacid (C10-13), MIPA-salt

Harmful if swallowed.

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**

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:

study scientifically unjustified



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	Negligible or unlikely exposure pathways 2-Butyloctan-1-ol: study scientifically unjustified Negligible or unlikely exposure pathways Data are available from alternate exposure routes.
<b>Acute dermal toxicity</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: LD50 Rat: > 2.000 mg/kg; OECD Test Guideline 402 The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). (literature value) Test substance: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts Based on available data, the classification criteria are not met.  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.
<b>Skin corrosion/irritation</b>	
<b>Skin irritation</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Rabbit: irritating; OECD Test Guideline 404 Category approach Causes skin irritation.  Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: in vitro assay: not irritating; EPISKIN Human Skin Model Test The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Alkylbenzenesulfonicacid (C10-13), MIPA-salt Based on available data, the classification criteria are not met.  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.
<b>Serious eye damage/eye irritation</b>	
<b>Eye irritation</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: in vitro assay: Risk of serious damage to eyes.; Human Corneal Epithelial Model (HCE) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Alkylbenzenesulfonicacid (C10-13), MIPA-salt Causes serious eye damage.  2-Butyloctan-1-ol: Rabbit: slightly irritating; OECD Test Guideline 405 Based on available data, the classification criteria are not met.
<b>Respiratory or skin sensitisation</b>	
<b>Sensitisation</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Maximisation Test Guinea pig: not sensitizing; OECD Test Guideline 406 The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Alkylbenzenesulfonicacid (C10-13), MIPA-salt Based on available data, the classification criteria are not met.

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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**

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:

Ames test; Salmonella typhimurium; with and without metabolic activation: Non mutagenic; OECD Test Guideline 471

The preparation, as such, was examined for toxicological characteristics and then classified accordingly.

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:

In vitro tests did not show mutagenic effects

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

Test substance: Alkylbenzenesulfonicacid (C10-13), MIPA-salt

2-Butyloctan-1-ol:

In vitro tests did not show mutagenic effects

Category approach

**Genotoxicity in vivo**

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:

In vivo tests did not show mutagenic effects (literature value)

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

Test substance: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

2-Butyloctan-1-ol:

The study is not necessary.

Justification:

In vitro tests did not show mutagenic effects

**Remarks**

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:

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

2-Butyloctan-1-ol:

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

**Carcinogenicity****Carcinogenicity**

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:

not expected based on structure and functional groups

The substance has been shown to be not genotoxic, therefore it is not expected to have a carcinogenic potential.

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

Test substance: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

2-Butyloctan-1-ol:

This information is not available.

**Reproductive toxicity****Reproductive toxicity**

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:

Fertility and developmental toxicity tests did not reveal any effect on reproduction. (literature value)

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

Test substance: Benzenesulfonic acid, C10-14-alkyl derivs., sodium salts

2-Butyloctan-1-ol:

Rat; Oral

NOAEL ((parents)): > 1.000 mg/kg (based on body weight and day)

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	<p>NOAEL (F1): &gt; 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>
<b>Remarks</b>	<p><b>Reproductive toxicity</b> Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Based on available data, the classification criteria are not met.</p> <p>2-Butyloctan-1-ol: Based on available data, the classification criteria are not met.</p>
<b>Teratogenicity</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Rat; Oral NOAEL: 300 mg/kg (based on body weight and day) NOAEL (pregnant female): 2 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: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</p> <p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Did not show teratogenic effects in animal experiments. (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</p> <p>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); OECD Test Guideline 414 (literature value) Category approach</p> <p>2-Butyloctan-1-ol: Rabbit; Oral NOAEL: &gt; 2.000 mg/kg (based on body weight and day) NOAEL (pregnant female): &gt; 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</p>
<b>Remarks</b>	<p><b>Teratogenicity</b> Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Based on available data, the classification criteria are not met.</p> <p>2-Butyloctan-1-ol: Based on available data, the classification criteria are not met.</p>
<b>STOT - single exposure</b>	
<b>Remarks</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: The substance or mixture is not classified as specific target organ toxicant, single exposure.</p> <p>2-Butyloctan-1-ol: The substance or mixture is not classified as specific target organ toxicant, single exposure.</p>
<b>STOT - repeated exposure</b>	
<b>Remarks</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: The substance or mixture is not classified as specific target organ toxicant,</p>

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	repeated exposure.
	2-Butyloctan-1-ol: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
<b>Repeated dose toxicity</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Rat; Drinking water; 9 months NOAEL: 85 mg/kg (based on body weight and day) LOAEL: 145 mg/kg (based on body weight and day) Target Organs: Kidney (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, C10-14-alkyl derivs., sodium salts
	2-Butyloctan-1-ol: Rat; Oral; 90-day NOAEL: 839,6 mg/kg (based on body weight and day); OECD Test Guideline 408 Category approach
<b>Aspiration hazard</b>	
<b>Aspiration toxicity</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Not applicable
	2-Butyloctan-1-ol: Not applicable

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

<b>Toxicity to fish</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: LC50 (96 h) Cyprinus carpio (Carp): > 0,1 - 1 mg/l ; flow-through test; OECD Test Guideline 203 The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, 4-C15-16-alkyl derivs.
	2-Butyloctan-1-ol: LC50 (96 h) Oncorhynchus mykiss (rainbow trout): > 0,1 - 1 mg/l ; semi-static test; OECD Test Guideline 203
<b>Toxicity to fish - Chronic toxicity</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: NOEC (28 d) : 0,024 mg/l; QSAR (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, 4-C15-16-alkyl derivs.
	2-Butyloctan-1-ol: The study is not necessary. Justification: exposure considerations
<b>Toxicity to daphnia and other aquatic invertebrates</b>	Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: EC50 (48 h) Daphnia magna (Water flea): > 0,1 - 1 mg/l ; static test; OECD Test

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	<p>Guideline 202 The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, 4-C15-16-alkyl derivs.</p>
	<p>2-Butyloctan-1-ol: EC50 (48 h) Daphnia magna (Water flea): &gt; 0,1 - 1 mg/l ; static test; OECD Test Guideline 202</p>
<b>Toxicity to daphnia and other aquatic invertebrates - Chronic toxicity</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: NOEC (21 d) : 0,024 mg/l; QSAR; (literature value) The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, 4-C15-16-alkyl derivs.</p> <p>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</p>
<b>Toxicity to aquatic plants</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: ErC50 (72 h) Pseudokirchneriella subcapitata (green algae): &gt; 99 mg/l ; Growth rate; static test; OECD Test Guideline 201; The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, 4-C15-16-alkyl derivs.</p> <p>2-Butyloctan-1-ol: ErC50 (72 h) Pseudokirchneriella subcapitata (green algae): &gt; 1 - 10 mg/l ; Growth rate; OECD Test Guideline 201</p> <p>2-Butyloctan-1-ol: NOEC (72 h) Pseudokirchneriella subcapitata (green algae): 0,38 mg/l ; Growth rate; static test; OECD Test Guideline 201</p>
<b>Toxicity to bacteria</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: IC50 (24 h) activated sludge: 12,62 mg/l; OECD Test Guideline 301F The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, 4-C15-16-alkyl derivs.</p> <p>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</p>
<b>Toxicity to soil dwelling organisms</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: EC10 Aporroectodea caliginosa: 71,7 mg/kg; Growth The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). (literature value) Test substance: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</p> <p>2-Butyloctan-1-ol: The study is not necessary. Justification: unlikely direct and indirect exposure of the soil compartment Readily biodegradable.</p>
<b>Toxicity to terrestrial flora</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Growth; EC50: 90 mg/kg; Galinsoga parviflora; OECD Test Guideline 208 The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). (literature value) Test substance: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</p>

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	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Growth; EC10: 55 mg/kg; Galinsoga parviflora; OECD Test Guideline 208 The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). (literature value) Test substance: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</p> <p>2-Butyloctan-1-ol: The study is not necessary. Justification: unlikely direct and indirect exposure of the soil compartment Readily biodegradable.</p>
<b>Toxicity for other terrestrial non-mammalian fauna</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: No data available</p> <p>2-Butyloctan-1-ol: The study is not necessary. Justification: unlikely direct and indirect exposure of the soil compartment</p>
<b>12.2 Persistence and degradability</b>	
<b>Biodegradability</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: inherently biodegradable; &gt; 60 %; 42 d; aerobic; OECD Test Guideline 301F The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). Test substance: Benzenesulfonic acid, 4-C15-16-alkyl derivs.</p> <p>2-Butyloctan-1-ol: rapidly biodegradable; &gt; 60 %; 28 d; aerobic; OECD Test Guideline 310 Category approach</p>
<b>12.3 Bioaccumulative potential</b>	
<b>Bioaccumulation</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: Pimephales promelas (fathead minnow); 192 h; Bioconcentration factor (BCF): 1.000; OECD Test Guideline 305 E The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). (literature value) Test substance: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</p> <p>2-Butyloctan-1-ol: Bioconcentration factor (BCF): 84; QSAR Bioaccumulation is unlikely.</p>
<b>12.4 Mobility in soil</b>	
<b>Mobility</b>	<p>Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol: adsorption/desorption (soil); Medium: Sewage sludge - soil; Koc: 2500; log Koc: 3,4 The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy). (literature value)</p> <p>2-Butyloctan-1-ol: immobile The substance and its relevant degradation products decompose rapidly.</p>
<b>12.5 Results of PBT and vPvB assessment</b>	
<b>Results of PBT assessment</b>	<p>This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative</p>

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**Results of PBT assessment**

(vPvB) at levels of 0.1% or higher.

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:  
Based on available data, the classification criteria are not met.

2-Butyloctan-1-ol:  
Based on available data, the classification criteria are not met.

### 12.6 Other adverse effects

**General advice**

Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol:  
Very toxic to aquatic life.  
Very toxic to aquatic life with long lasting effects.

2-Butyloctan-1-ol:  
Very toxic to aquatic life.  
Toxic to aquatic life with long lasting effects.

## 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 SUBSTANCE, LIQUID, N.O.S. (Alkylbenzenesulfonic acid)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkylbenzenesulfonic acid)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkylbenzenesulfonic acid)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkylbenzenesulfonic acid)
ICAO/IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkylbenzenesulfonic acid)

### 14.3 Transport hazard class

ADR	9
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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
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**

**Occupational restrictions** Employment restrictions for children and young workers in accordance with Directive 94/33/EC and the respective national provisions are to be observed.

**NATIONAL/OTHER REGULATIONS**

**Legislation on the control of major-accident hazards involving dangerous substances** Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.  
list entry in the directive:: Not applicable



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### NOTIFICATION STATUS

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

#### Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol

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

#### 2-Butyloctan-1-ol

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

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3.

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

### Safety datasheet sections which have been updated:

- 2. Hazards identification
- 3. Composition/information on ingredients
- 8. Exposure controls/personal protection
- 11. Toxicological information

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12. Ecological information  
 15. Regulatory information  
 Annex

### Further information:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.  
 This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

### Key or legend to abbreviations and acronyms used in the safety data sheet

ADN	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
AICS	Australian Inventory of Chemical Substances
ANSI	American National Standards Institute
ASTM	American Society of Testing and Materials (US)
BCF	Bioconcentration factor
CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DIN	Deutsches Institut für Normung
DNEL	Derived No-Effect Level
DSL	Domestic Substances List
EC...	Effect concentration ... %
ENCS	Existing Notified Chemical Substances (Japan)
EWC	European Waste Catalogue
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISHL	Industrial Safety and Health Law (Japan)
ISO	International Organization for Standardization
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.

### Benzenesulfonic acid, 4-C15-16-sec-alkyl derivs.-, compd. with 1-aminopropane-2-ol

[http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000024572\\_EN\\_01.pdf](http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000024572_EN_01.pdf)



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### 2-Butyloctan-1-ol

[http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000067\\_EN\\_01.pdf](http://www.sasolgermany.de/fileadmin/doc/productsafety/Annex/000000000067_EN_01.pdf)

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