



Trade name: Alcohol n-butylicus

Date revised: 23.09.08

Dangerous substance number: 152100

Version: 1 / CH

Date of printing: 23.09.08

## 01. Identification of the substance/preparation and of the company/undertaking

### Trade name

Alcohol n-butylicus

Item-No. 15210000

### Company/undertaking identification

#### Address

Hänseler AG

Industriestrasse 35

9101 Herisau

Telephone no. 0041 (0)71 353 58 58

Emergency telephone 0041 (0)44 251 51 51

## 02. Hazards identification

### Classification

Classification	R10
	Xn, R22
	R67
	Xi, R37/38-R41

### Hazard symbols

Xn	Harmful
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### R phrases

10	Flammable.
22	Harmful if swallowed.
37/38	Irritating to respiratory system and skin.
41	Risk of serious damage to eyes.
67	Vapours may cause drowsiness and dizziness.

## 03. Composition / information on ingredients

### Hazardous ingredients

#### Butan-1-ol

CAS no. 71-36-3

EINECS no. 200-751-6

Concentration &gt;= 50 %

Classification Xn, R22

Xi, R37/38-R41

R10

R67

## 04. First aid measures

### General information

Remove affected person from danger area.. Remove contaminated, soaked clothing immediately and dispose of safely.

### After inhalation

Ensure supply of fresh air.. If necessary, give oxygen. Seek medical advice immediately.. If the patient is likely to become unconscious, place and transport in stable sideways position.

### After skin contact

Wash off immediately with soap and water and rinse well.

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**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.).. Begin with medical treatment.

**After ingestion**

Rinse out mouth and give plenty of water to drink.. Administer activated charcoal.. Take medical treatment.

**Hints for the physician / symptoms**

Dizziness, Dizziness, Nausea, Vomiting, Intoxication, Narcosis, Cardiovascular disturbance, CNS Disturbance

**05. Fire-fighting measures****Suitable extinguishing media**

Carbon dioxide, Dry powder, Water spray jet, Extinguish greater fire with alcohol-resistant foam.

**Non Suitable extinguishing media**

Full water jet

**Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases**

Carbon monoxide (CO); Can build mixtures of gas and air which are capable of explosion.

**Special protective equipment for fire-fighting**

Use self-contained breathing apparatus.

**Other information**

Cool endangered containers with water spray jet.

**06. Accidental release measures****Personal precautions**

Wear protective equipment. Keep away unprotected persons.

**Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.. Advise water authority if spillage has entered water course or drainage system.

**Methods for cleaning up**

Take up with absorbent material (eg sand, kieselguhr, universal binder).. When picked up, treat material as prescribed under heading "Disposal".. Ensure adequate ventilation.

**07. Handling and storage****Handling****Advice on safe handling**

Provide good ventilation of working area (local exhaust ventilation if necessary).. Provide good room ventilation even at ground level (vapours are heavier than air).. Keep container tightly closed.. Avoid formation of aerosols.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - refrain from smoking.. Use explosion-proof equipment/fittings and non-sparking tools.

**Storage****Requirements for storage rooms and vessels**

Provide solvent-resistant and impermeable floor.. Use polyethylene or polypropylene containers.. Use steel or stainless steel containers.

**Hints on storage assembly**

Do not store with oxidizing agents.



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**Further information on storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place.. Protect from heat and direct sunlight.

**08. Expose controls/personal protection****Exposure limit values****Butan-1-ol**

Type	MAK			
Value	150	mg/m <sup>3</sup>	50	ppm(V)
Short term exposure limit	150	mg/m <sup>3</sup>	50	ppm(V)
Short-term exposure limit	15 min			
Pregnancy group	C			

**General protective and hygiene measures**

Keep away from food-stuffs, beverages and feed-stocks. Wash hands before breaks and after work. At work do not eat, drink, smoke or take drugs. Avoid contact with eyes and skin. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols.

**Occupational exposure controls****Respiratory protection**

Breathing apparatus in the event of aerosol or mist formation.; Gas filter class A1.

**Hand protection**

Gloves (solvent-resistant)

Appropriate Material	nitrile rubber - NBR
Material thickness	0.35 mm
Penetrating time	>= 8 h

Gloves (solvent-resistant)

Appropriate Material	Butyl rubber - Butyl
Material thickness	0.5 mm
Penetrating time	>= 8 h

Gloves (solvent-resistant)

Appropriate Material	Fluoro carbon rubber - FKM
Material thickness	0.4 mm
Penetrating time	>= 8 h

Not suitable: gloves made of thick material

Not suitable: leather gloves

Not suitable: rubber gloves

Not suitable: PVC gloves

**Eye protection**

Tightly fitting safety glasses

**Skin protection**

Solvent-resistant protective clothing

**09. Physical and chemical properties****General information**

Form	liquid
Colour	colourless
Odour	alcohol-like

**Important health, safety and environmental information****Flash point**

Value	35	°C
Source	DIN 51755	



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**Boiling point**

Value	116	to	118	°C
method	DIN 51761			

**Melting point**

Value	-89			°C
method	DIN 51761			

**Ignition temperature**

Value	340			°C
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**Explosion limits**

Lower explosion limit	1.5	to	11.3	%(V)
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**Vapour pressure**

Value	5.6			hPa
temperature	20	°C		

**Density**

Value	0.810			g/cm <sup>3</sup>
temperature	20	°C		
method	DIN 51757			

**Viscosity****dynamic**

Value	2.95			
method	DIN 51550			

**Solubility in water**

Value	77			g/l
temperature	20	°C		

**pH**

Value	7			
Concentration/H <sub>2</sub> O	70	g/l		
temperature	20	°C		

**log Pow**

log Pow	0.88			
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The product is not dangerous for explosions.. Forms explosive mixture with air are possible.

**10. Stability and reactivity****Conditions to avoid**

To avoid thermal decomposition, do not overheat.

**Materials to avoid**

Reactions with acids., Reactions with oxidising agents., Reactions with halogenated compounds., Reactions with light metals, with evolution of hydrogen., Reactions with alkali metals., Reactions with earth alkali metals.

**Other information**

Vapours and gases can form an explosive mixture with air.

**11. Toxicological information****Acute toxicity / further data****Acute oral toxicity**

Species	rat			
LD50	790			mg/kg

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**Acute dermal toxicity**

Species	rabbit		
LD50	3400		mg/kg

**Acute inhalational toxicity**

Species	rat		
LC50	> 18		mg/l
Duration of exposure	4	h	

**Irritant/corrosive effects****Irritant effect on skin**

Remarks	Irritating effects on the skin and mucous membrane.
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**Irritant effect on eyes**

Remarks	Irritates the eyes.
Remarks	Danger acute eye damage.

**Sensitization**

Remarks	No sensitisation effect known.
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**Effects after repeated or prolonged exposition (subacute, subchronic, cronic)****Subacute, subchronic, chronic toxicity**

Remarks	Repeated absorption/exposure may cause disorder of liver and kidneys.
Remarks	Change of blood count possible.

**Experience in practice**

Inhalation of vapours may lead to headache, drowsiness and dizziness.

**12. Ecological information****Fish toxicity**

Species	golden orfe (Leuciscus idus)		
LC50	1200		mg/l
Duration of exposure	96	h	

**Daphnia toxicity**

Species	Daphnia magna		
EC50	1983		mg/l
Duration of exposure	48	h	

**Algae toxicity**

IC50	> 500		mg/l
Duration of exposure	72	h	

**Biodegradability**

valuation	Readily biodegradable
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**Evaluation of persistence and bioaccumulation potential**

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not possible.

**General information / ecology**

Innocuous! to aquatic organisms.. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

**13. Disposal considerations****Disposal recommendations for the product**

Disposal in compliance with local and national regulations.

**Disposal recommendations for packaging**

Dispose of as unused product.

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## 14. Transport information

### Land transport ADR/RID

UN number	1120
Class	3
Packing group	III
Label	3
Technical name	BUTANOLS
Danger releasing substance	Butan-1-ol

### Marine transport IMDG/GGVSee

UN number	1120
Class	3
Packing group	III
Technical name	BUTANOLS
Danger releasing substance	Butan-1-ol

### Air transport ICAO/IATA

UN number	1120
Class	3
Packing group	III
Technical name	BUTANOLS
Danger releasing substance	Butan-1-ol

## 15. Regulatory information

### Labelling in accordance with EC directives

The product is classified and labelled in accordance with EC directives/the relevant national laws.

### Hazard symbols

Xn	Harmful
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### Hazardous component(s) to be indicated on label

contains	Butan-1-ol
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### R phrases

10	Flammable.
22	Harmful if swallowed.
37/38	Irritating to respiratory system and skin.
41	Risk of serious damage to eyes.
67	Vapours may cause drowsiness and dizziness.

### S phrases

7/9	Keep container tightly closed and in a well-ventilated place.
13	Keep away from food, drink and animal feedingstuffs.
26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
37/39	Wear suitable gloves and eye/face protection.
46	If swallowed, seek medical advice immediately and show this container or label.

## 16. Other information

### R-phrases of the ingredients listed in chapter 3

10	Flammable.
22	Harmful if swallowed.
37/38	Irritating to respiratory system and skin.
41	Risk of serious damage to eyes.
67	Vapours may cause drowsiness and dizziness.

This information is based on our present state of knowledge. However, it should not constitute a

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guarantee for any specific product properties and shall not establish a legally valid relationship.