

Product Name	RXSOL-19-1571-210
Product Type	N-Butanol

Company Details:

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Chemical Name

CAS Number

EC Number

Index number

Butan-1-ol

71-36-3

200-751-6

603-004-00-6

Hazard description:

Information concerning particular hazards for human and environment:

R 10 Flammable.

R 22 Harmful if swallowed.

R 37/38 Irritating to respiratory system and skin.

R 41 Risk of serious damage to eyes.

R 67 Vapours may cause drowsiness and dizziness.

General information	Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
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After inhalation

In case of unconsciousness place patient stably in side position for transportation.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing

Call for a doctor immediately.

Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

Protective equipment: No special measures required.

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection: Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting: Dilute with plenty of water. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

Handling:

Information for safe handling: No special requirement

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep container tightly sealed.

Additional information about design of technical facilities: No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:

71-36-3 butan-1-o

PEL (USA)

REL (USA)

TLV (USA)

WEL (Great Britain)

300 mg/m³, 100 ppm

Short-term value: C 150 mg/m³, C 50 ppm

Skin

61 mg/m³, 20 ppm

Short-term value: 154 mg/m³, 50 ppm

Sk

Additional information: The lists valid during the making were used as basis.

Personal protective equipment:

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the skin. Avoid contact with the eyes and skin.

Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

General Information

Form

Fluid

Colour

Colourless

Odour

Alcohol-like

Change in condition

Melting point/Melting range

-89°C

Boiling point/Boiling range

116-118°C

Flash point

35°C

Ignition temperature 340°C

Danger of explosion

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:		Lower	1.5 Vol %	Upper	9.4 Vol %	Vapour pressure at 20°C	6.7 hPa
Density at 20°C	0.81 g/cm³	Solubility in / Miscibility with water at 20°C			77 g/l	pH-value (70 g/l) at 20°C	7
Viscosity:	Dynamic at 20°C	2.95 mPas					

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions No dangerous reactions known.

Dangerous decomposition products: No dangerous decomposition products known.

Acute toxicity: **LD/LC50 values relevant for classification:**

Oral

Dermal

Inhalative

LD50

LC50

LC50/4 h

790 mg/kg (rat)

3400 mg/kg (rabbit)

8000 mg/l (rat)

Primary irritant effect:	on the skin	Irritant to skin and mucous membranes.	on the eye	Strong irritant with the
danger of severe eye injury.	Sensitization	No sensitizing effects known.		

General notes: Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Product:

Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging: Recommendation: Disposal must be made according to official regulations.

Land transport ADR/RID (cross-border)			ADR/RID class		3 Flammable liquids.	Danger code (Kemler)	
30	UN-Number	1120	Packaging group	III	Hazard label	3	Description of
goods	1120 BUTANOLS	Maritime transport IMDG			IMDG Class	3	UN Number
	Label	3	Packaging group	III	EMS Number	F-E,S-D	Marine pollutant
	Proper shipping name	BUTANOLS	Air transport ICAO-TI and IATA-DGR			ICAO/IATA Class	3
	UN/ID Number	1120	Label	3	Packaging group	III	Proper shipping name
	BUTANOLS						

• Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

• Risk 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.

• Safety phrases:

2 Keep out of the reach of children.

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.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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