

Material Safety Data Sheet

Product Name	<u>Butyl alcohol</u>
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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identification:****Product Description:** Butyl alcohol**Synonyms:** 1-Butanol; propyl carbinol; butanol; n-butyl alcohol**CAS-No:** 71-36-3**EC-No.:** 200-751-6**Molecular Formula:** CH₃(CH₂)₃OH**REACH Registration No:** A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.**Relevant identified uses of the substance or mixture and uses advised against:****Identified Uses:** Laboratory chemicals, Manufacture of substances**1.2. Details of the supplier of the safety data sheet:**

- **Company** **Finar Limited**
184-186/P, Chacharwadi Vasna,
Sarkhej-Bavla Highway,
Ta.: Sanand, Dist.: Ahmedabad,
Email: info@finarchemicals.com
Web: www.finarchemicals.com
- **E-mail Address** safety@finarchemicals.com; info@finarchemicals.com

1.3. Emergency telephone number:

- For Emergency contact No: +91 - 2717 - 616 717
- Registered office No: +91 - 79 - 40040085

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 3), H226

Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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

2.2. Label elements:

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal Word: Warning

Hazard Statements:

H226 - Flammable liquid and vapour

H302 - Harmful if swallowed.

H315 - Causes skin irritation

H318 - Causes serious eye damage.

H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness.

Precautionary Statements: None

Supplemental Hazard Information (EU):

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

P280 - Wear eye protection/ face protection.

P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

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P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

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.

P403 + P235 - Store in a well-ventilated place. Keep cool.

2.3. Other hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Butyl alcohol

3.2. Mixtures:

Component	CAS-No	EC-No.	Weight %
Butyl alcohol	71-36-3	200-751-6	<= 100 %

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

- **General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.
- **If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- **In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.
- **In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- **If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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4.3. Indication of any immediate medical attention and special treatment needed:

No data available

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture:

Carbon oxides

Flash back possible over considerable distance.

5.3. Advice for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information:

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

6.2. Environmental precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3. Methods and material for containment and cleaning up:

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13).

6.4. Reference to other sections:

For disposal see section 13.

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SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Handle and store under inert gas.

7.3. Specific end use(s):

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters:**

Components with workplace control parameters

8.2. Exposure controls:**Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment:**Eye/Face Protection**

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. and dry hands.

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Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 730 / Aldrich Z677442, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.2 mm

Break through time: 58 min

Material tested: Dermatril® (KCL 743 / Aldrich Z677442, Size M)

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties:**

- **Appearance:** Clear, Colorless
- **Physical State:** Liquid
- **Odor:** Alcohol type
- **Odor Threshold:** No data available
- **pH:** No data available
- **Melting Point/Freezing Point:** -90 °C
- **Initial Boiling point and Boiling range:** 116 - 118 °C
- **Flash Point:** 35 °C
- **Auto-Ignition Temperature:** 340 °C
- **Upper Explosive Limit:** 11.2 % (V)
- **Lower Explosive Limit:** 1.4 % (V)
- **Decomposition Temperature:** No data available
- **Vapor Pressure:** 5 hPa at 20 °C
- **Vapor Density:** 2.56 - (Air = 1.0)
- **Relative Density:** 0.81 g/mL at 25 °C
- **Bulk Density:** No data available
- **Volatility:** No data available
- **Odor Threshold:** No data available
- **Water/Oil Dist. Co eff.:** No data available
- **Ionicity (in Water):** No data available
- **Specific Gravity:** No data available
- **Water Solubility:** Soluble

9.2. Other information:**Molecular Formula:** CH₃(CH₂)₃OH**Molecular Weight:** 74.12 g/mol

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SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity:**

No data available

10.2. Chemical stability:

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions:

No data available

10.4. Conditions to avoid:

Exposure to moisture

Heat, flames and sparks

10.5. Incompatible materials:

Oxidizing agents, Alkali metals, Bases, Strong acids, Halogens

10.6. Hazardous decomposition products:

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides

In the event of fire: see section 5

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

LD50 Oral - Rat - 790 mg/kg

Remarks: Liver: Fatty liver degeneration. Kidney, Ureter, Bladder: Other changes.

Blood: Other changes. (RTECS)

LC50 Inhalation - Rat – No data available

LD50 Dermal - Rat – Male – 3.430 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation - 2 h

Remarks: (ECHA)

(Regulation (EC) No 1272/2008, Annex VI)

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Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irreversible effects on the eye

(OECD Test Guideline 405)

(Regulation (EC) No 1272/2008, Annex VI)

Sensitization

No data available

Germ cell mutagenicity

Mutagenicity (mammal cell test): micronucleus.

Chinese hamster lung cells

Result: negative

(ECHA)

In vitro mammalian cell gene mutation test

Chinese hamster lung cells

Result: negative

OECD Test Guideline 474

Mouse - male and female

Result: negative

Carcinogenicit

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation.

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: EO1400000

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Drying, cracking of the skin, Skin irritation

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity:

Toxicity to fish: static test LC50 - Pimephales promelas (fathead minnow) - 1.376 mg/l – 96 h (OECD Test Guideline 203)

Toxicity to daphni and other aquatic invertebrates: static test EC50 - Daphnia magna (Water flea) - 1.328 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae: static test ErC50 - Pseudokirchneriella subcapitata (green algae) – 225 mg/l - 96 h (OECD Test Guideline 201)

Toxicity to bacteria: static test EC50 - Pseudomonas putida - 4.390 mg/l - 17 h (DIN 38421 TEIL 8)

12.2. Persistence and degradability Persistence:

Biodegradability: aerobic - Exposure time 20 d
Result: 92 % - Readily biodegradable.

Remarks: (ECHA)

Ratio BOD/ThBOD: 33%

Remarks: (IUCLID)

12.3. Bio accumulative potential:

Bioaccumulation: Oncorhynchus mykiss (rainbow trout) - 24 h - 921 mg/l(n-Butanol)

Bioconcentration factor (BCF): 0.38

12.4. Mobility in soil:

No data available

12.5. Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Other adverse effects:

No data available

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SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods:

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Air transport (IATA)	Sea transport (IMDG)
14.1 UN number	1120	1120	1120
14.2 Proper shipping name	Butanols	Butanols	Butanols
14.3 Class	3	3	3
14.4 Packing group	III	III	III
14.5 Environmentally hazardous	No	No	No
14.6 Special precautions for user	No data available	No data available	No data available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code			
Not Relevant			

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment:

For this product, a chemical safety assessment is not carried out.

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SECTION 16: OTHER INFORMATION

- **Full text of H-Statements referred to under sections 2 and 3:**

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

References: Not available

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Disclaimer:

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