

SILVER FERN CHEMICAL



Safety Data Sheet

n-Butyl Alcohol

SECTION 1: IDENTIFICATION

Product Name: n-Butyl Alcohol

CAS Number: 71-36-3

Chemical Name: 1-Butanol

Synonyms: 1-Butanol, n-Butanol, Butyl Alcohol

Company

Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North
Suite #C
Seattle WA 98109, USA

Business Contact

Customer Service: 1-866-282-3384
info@silverfernchemical.com

24 Hour Emergency Contact

Infotrac 800-535-5053
Outside USA & Canada 352-323-3500

SECTION 2: HAZARD IDENTIFICATION

Warning



H226: Flammable liquid and vapor.

H302: Harmful if swallowed.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Content (W/W)	Hazardous Ingredients
71-36-3	>95%	n-Butyl Alcohol

SECTION 4: FIRST AID MEASURES

P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point:

35 °C (95 °F) - closed cup

Lower/Upper explosion limit:

Upper explosion limit: 11.2 %(V)

Lower explosion limit: 1.4 %(V)

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Flash back possible over considerable distance.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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

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

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

SECTION 7: HANDLING AND STORAGE

Storage: 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. Hygroscopic

Protection against fire and explosion: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Personal Protective Equipment (PPE)

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines.

Hand protection: Use gloves chemically resistant to this material.

Eye protection: Face shield and safety glasses. Use equipment tested and approved under government standards- NIOSH (US).

Body protection: Complete suit protecting against chemicals, Flame retardant antistatic protective clothing, and the type of protective equipment must be selected according to the task.

General safety and hygiene measures:

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Permissible Exposure Limits (PEL):

OSHA: 100 ppm TWA; 300 mg/m³ TWA

NIOSH: 1400 ppm IDLH

ACGIH: 20 ppm TWA

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form:	liquid, clear color: colorless
Odor:	no data available
Odor:	Threshold no data available
pH:	no data available
Melting point/freezing point:	Melting point/range: 90 °C (194 °F) - lit.
Initial boiling point and boiling range:	117.7 °C (243.9 °F) 116 - 118 °C (241 - 244 °F) - lit.
Flash point:	35 °C (95 °F) - closed cup
Evaporation rate:	no data available
Flammability (solid, gas):	no data available
Upper/lower flammability or explosive limits:	Upper explosion limit: 11.2 %(V) Lower explosion limit: 1.4 %(V)
Vapor pressure:	5 hPa (4 mmHg) at 20 °C (68 °F)
Vapor density:	2.56 - (Air = 1.0)
Relative density:	0.81 g/mL at 25 °C (77 °F)
Water solubility:	soluble

SECTION 10: STABILITY AND REACTIVITY

Conditions to avoid: Exposure to moisture. Heat, flames and sparks.

Substances to avoid: Oxidizing agents, Alkali metals, Bases, Strong acids, Halogens

Hazardous reactions: Vapors may form explosive mixture with air.

Decomposition products: no data available

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - rat - 790 mg/kg

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

LC50 Inhalation - rat - 4 h - 8000 ppm

LD50 Dermal - rabbit - 3,400 mg/kg

Skin corrosion/irritation

Skin - rabbit

Result: Skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - rabbit

Result: Eye irritation

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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

drying, cracking of the skin, Skin irritation

Liver - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - 1,840 mg/l - 96 h

Toxicity to daphnia
and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 1,983 mg/l - 48 h

Bioaccumulative potential

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 24 h
- 921 mg/l
Bioconcentration factor (BCF): 0.38

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal of substance: 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. Contact a licensed professional waste disposal service to dispose of this material.

Container disposal: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

DOT (US)

UN number: 1120 Class: 3 Packing group: III
Proper shipping name: Butanols
Reportable Quantity (RQ): 5000 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN number: 1120 Class: 3 Packing group: III EMS-No: F-E, S-D
Proper shipping name: BUTANOLS
Marine pollutant: No

IATA

UN number: 1120 Class: 3 Packing group: III
Proper shipping name: Butanols

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

REACH 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.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

n-Butanol	CAS-No.	Revision Date
	71-36-3	7/1/2007

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

n-Butanol	CAS-No.	Revision Date
	71-36-3	7/1/2007

Pennsylvania Right To Know Components

n-Butanol	CAS-No.	Revision Date
	71-36-3	7/1/2007

New Jersey Right To Know Components

n-Butanol	CAS-No.	Revision Date
	71-36-3	7/1/2007

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: OTHER INFORMATION

HMIS Rating

Health hazard:	2
Chronic Health Hazard:	*
Flammability:	3
Physical Hazard	1

NFPA Rating

Health hazard:	2
Fire Hazard:	3
Reactivity Hazard:	1

DISCLAIMER OF RESPONSIBILITY

The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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