

TECHNICAL DATA SHEET

N-Butyl Alcohol Technical Grade

Technical

CAS NUMBER	ALLIANCE CODE	GENERATED
71-36-3	n-butyl-alcohol	2026-08-31
REVISION	REVIEWED	
1.3	2026-07-17 · Andre Taki	

IDENTITY & COMPOSITION

PRODUCT NAME	ALLIANCE CODE
N-Butyl Alcohol Technical Grade	n-butyl-alcohol
GRADE	CONCENTRATION
Technical	—
CAS NUMBER	FORMULA
71-36-3 PubChem	C4H10O PubChem
MOLECULAR WEIGHT	PRODUCT TYPE
74.12 PubChem	pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (n-Butyl Alcohol)	not less than 99.4 %	99.9 %	GOST 5208-2013 cl. 7.4	Supplier specification
Acidity (as acetic acid)	0.01 wt.% max.	0.001 wt.%	IS 323 - 1959 (equivalent to ASTM D1613)	Supplier specification
Acids as acetic acid	not more than 0.003 %	0.001 %	GOST 5208-2013 cl. 7.5	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Aldehydes (as butyraldehyde)	0.03 wt.% max.	0.005 wt.%	HY 2 (BS 4583) or HY 221	Supplier specification
Bromine number	not more than 0.02 g of bromine per 100 g of alcohol	0.005	GOST 5208–2013 cl. 7.6	Supplier specification
Carbonyl compounds as butyraldehyde	not more than 0.06 %	0.008 %	GOST 5208–2013 cl. 7.7	Supplier specification
Iso-butanol	0.1 wt.% max.	0.02 wt.%	HY 221 (GC)	Supplier specification
Water	not more than 0.1 %	0.03 %	GOST 14870–77 section 2	Supplier specification
Non-volatile matter (residue on evaporation)	0.005 wt.% max.	0.0005 wt.%	ASTM D1353	Supplier specification
iron	0.3 ppm max	0.05 ppm	—	Supplier specification
residue	0.005 % max	0.0005 %	—	Supplier specification

Specification values are guaranteed limits. Typical values are representative of production lots and are not guaranteed. Lot-specific certificates of analysis ship with every order.

PHYSICAL & CHEMICAL PROPERTIES

One or more physical-property values are temporarily suppressed pending verification against vendor COA data. For complete properties refer to the Safety Data Sheet (SDS) or contact sales@alliancechemical.com.

PROPERTY	VALUE	SOURCE
Appearance	Clear & Colorless	Supplier specification
Form	Liquid	Published reference
Color	not more than 10 Hazen units	Supplier specification
Odor	Characteristic, non-residual	Interpreted
Specific Gravity (20 °C)	0.7862 g/mL	Vendor COA
Density	0.809–0.811 kg/cm ³	Supplier specification
Boiling Point	117 – 118 °C, 1 atm	Supplier specification
Melting Point	–129 °F (USCG, 1999)	Published reference
Flash Point	84 °F (USCG, 1999)	Published reference
Vapor Pressure	15.51 mmHg (USCG, 1999)	Published reference
Refractive Index (nD 20)	1.3980 – 1.4000	Interpreted

Polar solvent — purity vs. intended end-use (electronics, pharma, general industrial) is the dominant grade consideration. See application guidance for grade selection.

MATERIALS OF CONSTRUCTION

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
Buna-N (NBR) Elastomer	Fair	60	Acceptable for alcohols; poor for ketones.	Parker O-ring Chemical Compatibility

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
EPDM Elastomer	Fair	—	Good for alcohols, poor for esters	Cole-Parmer Chemical Compatibility
Viton (FKM) Elastomer	Fair	80	Swells in acetone and esters; avoid for those.	Parker O-ring Chemical Compatibility
FFKM (Kalrez) Fluoropolymer	Excellent	200	Premium ester / ketone sealing	Cole-Parmer Chemical Compatibility
PTFE Fluoropolymer	Excellent	200	Universal solvent compatibility.	Cole-Parmer Chemical Compatibility
Borosilicate Glass Glass Ceramic	Excellent	100	Universally inert.	Cole-Parmer Chemical Compatibility
Glass (borosilicate) Glass Ceramic	Excellent	100	Inert	Cole-Parmer Chemical Compatibility
316L Stainless Steel Metal	Excellent	80	Inert; preferred for high-purity solvent service.	Cole-Parmer Chemical Compatibility
Aluminium Metal	Good	40	Acceptable; avoid prolonged wet contact	Cole-Parmer Chemical Compatibility
Carbon Steel Metal	Fair	50	Trace moisture causes rust; flash-rust prevention required.	Cole-Parmer Chemical Compatibility
HDPE Thermoplastic	Fair	40	Swells with many polar solvents; verify per solvent.	Cole-Parmer Chemical Compatibility
PP Thermoplastic	Good	50	Acceptable but watch swelling with esters	Cole-Parmer Chemical Compatibility
PVC Thermoplastic	Fair	25	Esters soften PVC; avoid for esters	Cole-Parmer Chemical Compatibility

Ratings reflect the service envelope (concentration × temperature) shown. Always confirm against your specific duty cycle and contact-time before equipment selection. The most cautious rating across overlapping references is shown.

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN1120 [49 CFR 172.101](#)

PACKING GROUP

III [Adjudicated](#)

HAZARD CLASS

3 [Adjudicated](#)

PROPER SHIPPING NAME

Butanols [Adjudicated](#)

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger [Adjudicated](#)

H-CODES (HAZARD STATEMENTS)

H226, H302, H315, H318, H335, H336

[Adjudicated](#)

P-CODES (PRECAUTIONARY STATEMENTS)

P210, P233, P240, P241, P242, P243, P261,
P264, P270, P271, P280, P301+P312,
P302+P352, P303+P361+P353, P304+P340,
P305+P351+P338, P313, P314, P321, P330,
P332+P313, P362, P370+P378, P403+P233,
P403+P235, P405, P501

[Adjudicated](#)

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

— [no canonical](#)

ACGIH TLV

— [no canonical](#)

NIOSH REL

— [no canonical](#)

NIOSH IDLH

— [no canonical](#)

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: ECHA CLP Annex VI for harmonised classifications, NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

APPLICATIONS

Feedstock for producing n-butyl acrylate used in emulsion polymers for latex surface coatings and solution polymers for enamels and lacquers

thechemco.thomasnet-navigator.com

Feedstock for producing n-butyl acetate, a solvent for coating resins including epoxies and urethanes, and for leather treatment, perfumes and process/reaction solvent use

thechemco.thomasnet-navigator.com

Feedstock for producing n-butyl glycol ethers used as solvents in cleaning fluids, paints and inks

thechemco.thomasnet-navigator.com

Used directly as a solvent, mainly in surface coatings, adhesives and agriculture

thechemco.thomasnet-navigator.com

Chemical intermediate for the lubricant, agriculture, personal care and pharmaceutical industries

thechemco.thomasnet-navigator.com

Used in coatings and textiles, as an intermediate for glycol ethers, and in flotation agents, cleaners and floor polishes

theandhrapetrochemicals.com

Used as an extractant in production of drugs, antibiotics, hormones and vitamins, as a gasoline additive, and as a chemical intermediate for esters and alkylamines

theandhrapetrochemicals.com

Used as a chemical intermediate for esters and alkylamines. theandhrapetrochemicals.com

Applications are drawn from published manufacturer and supplier documentation; each is sourced. Suitability for a specific use is the buyer's to confirm.

STORAGE & HANDLING

RECOMMENDED STORAGE

Transportation and storage – according to GOST 5208.

rosneft.com

INCOMPATIBILITIES

Strong oxidizers, strong acids, isocyanates, anhydrides. Hygroscopic — protect from atmospheric moisture for water-sensitive end uses.

Class-level guidance — not product-specific; the SDS controls.

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

HANDLING PRECAUTIONS

Use chemical-resistant gloves and splash goggles. Bond and ground during transfer to prevent static accumulation. Eliminate ignition sources within vapor envelope.

Class-level guidance — not product-specific; the SDS controls.

SHELF LIFE

36 months rosneft.com

Conditions of acceptance, transportation and storage in accordance with GOST 5208; measured from the date of manufacture (manufacturer's guarantee for technical normal butyl alcohol, brand A premium)

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

UN1120, Butanols, 3, PG III

Sourced from 49 CFR 172.101. Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS
77.5

PLACARD
Flammable Liquid

PACKING GROUP
PG III

REVISION HISTORY

Last reviewed 2026-07-17 by Andre Taki, DOT Hazmat Specialist.

VERSION	DATE	CHANGE	TRIGGER
1.3	2026-08-05	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. - dotProperShippingName · canonical change (coa.data_provenance / adjudication) - unNumber · canonical change (coa.data_provenance / adjudication)	canonical_change
1.2	2026-07-22	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-07-17	Canonical data re-verified: 7 fields updated against independent vendor SDSs, CLP Annex VI, 49 CFR, and OSHA HazCom 2024 (GHS classification, hazard/precautionary codes, signal word, physical properties as applicable). - appearance · canonical adjudication / reground (coa.data_provenance) - countryOfOrigin · canonical adjudication / reground (coa.data_provenance) - ghsClassification · canonical adjudication / reground (coa.data_provenance) - hazard_h_codes · canonical adjudication / reground (coa.data_provenance) - hazard_p_codes · canonical adjudication / reground (coa.data_provenance) - hsCode · canonical adjudication / reground (coa.data_provenance) - specificGravity · canonical adjudication / reground (coa.data_provenance)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
1.0	2026-05-20	Initial URL-first TDS published from canonical chemistry registry.	initial

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.