TECHNICAL DATA SHEET

Boric Acid Technical Grade

Technical

CAS NUMBER	ALLIANCE CODE	GENERATED
10043-35-3	boric-acid	2026-08-31

REVISION	REVIEWED
1.1	2026-06-18 · Andre Taki

IDENTITY & COMPOSITION

PRODUCT NAME
Boric Acid Technical Grade

ALLIANCE CODE
boric-acid

GRADE
Technical

CONCENTRATION
—

CAS NUMBER
10043-35-3 PubChem

FORMULA
BH3O3 PubChem

MOLECULAR WEIGHT
61.84 PubChem

PRODUCT TYPE
pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (H3BO3)	99.90% min.	99.95 %	—	Supplier specification
Boric oxide (B2O3)	56.00% min.	56.27 %	—	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Equivalent H3BO3 (alternate technical-grade limit, U.S. Borax Optibor TG)	99.9–100.9	100.4	U.S. Borax analytical methods	Supplier specification
Sieve, % retained on U.S. No. 20 (0.850 mm) — granular technical grade only	≤2.0	0.4 %	—	Supplier specification
Chloride (Cl)	15 ppm max.	3 ppm	—	Supplier specification
Iron (Fe)	10 ppm max.	2 ppm	—	Supplier specification
Sulfate (SO4)	500 ppm max.	120 ppm	—	Supplier specification
Water insoluble matter	0.010 % max.	0.002 %	Gravimetric — hot water dissolution, filtration through tared Gooch crucible	Interpreted

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

PROPERTY	VALUE	SOURCE
Appearance	Passes	Vendor COA
Form	Solid	Published reference
Odor	Odorless	Published reference
pH	4.6 - 5.4	Interpreted
Density	0.85 - 1.00 g/cm3	Interpreted
Boiling Point	572 °F at 760 mmHg (decomposes) (NTP, 1992)	Published reference
Melting Point	340 °F (NTP, 1992)	Published reference
Flash Point	N/A	Published reference
Vapor Pressure	1.6X10-6 mm Hg at 25 °C (2.136X10-4 Pa); log P (in Pa) = 26.83 - 9094/T where T is deg K	Published reference
Solubility (water)	10 to 50 mg/mL at 66 °F (NTP, 1992)	Published reference

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

Not regulated Adjudicated

HAZARD CLASS

Not regulated Adjudicated

PACKING GROUP

Not regulated Adjudicated

PROPER SHIPPING NAME

Not regulated Adjudicated

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger Adjudicated

H-CODES (HAZARD STATEMENTS)

H360FD ECHA CLP Annex VI

P-CODES (PRECAUTIONARY STATEMENTS)

P201, P202, P280, P308+P313, P405, P501

ECHA CLP Annex VI

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

— no canonical

ACGIH TLV

— no canonical

NIOSH REL

5 mg/m³ TWA NIOSH Pocket Guide

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

Used in the production of agricultural products, flame-retardants, coatings, and metallurgy

rosemill.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

Storage: RT (RT (room temperature))

itwreagents.com

HANDLING PRECAUTIONS

Use standard chemical PPE — splash goggles, gloves, lab coat. Refer to SDS for hazard-specific PPE requirements.

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

INCOMPATIBILITIES

Consult the SDS for material-specific incompatibilities.

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

SHELF LIFE

Consult Technical Services for product-specific shelf life

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.

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

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Not regulated for transport.
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Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS

70

REVISION HISTORY

Last reviewed 2026-06-18 by Andre Taki, DOT Hazmat Specialist.

VERSION	DATE	CHANGE	TRIGGER
1.1	2026-06-18	Canonical data re-verified: 6 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) • `dotSubsidiaryHazardClass` · canonical adjudication / reground (coa.data_provenance) • `ghsClassification` · canonical adjudication / reground (coa.data_provenance) • `hsCode` · canonical adjudication / reground (coa.data_provenance) • `pH` · canonical adjudication / reground (coa.data_provenance)	canonical_change
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.