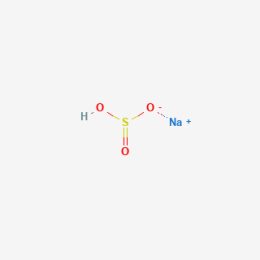
Technical Data Sheet

Sodium Bisulfite 25% ACS Grade

ACS · 25%

Alliance Code	Revised	Revision
sodium-bisulfite-25-acs-grade	2026-10-13	1.6

CAS number 7631-90-5	UN number UN2693	Hazard class · packing group 8 · PG III
 Structure · PubChem	Grade ACS · 25%	Signal word **Danger**

Hazards

Corrosive | Irritant / harmful | EUH031 H302 H318

Proper shipping name

Bisulfites, aqueous solutions, n.o.s. (Sodium bisulfite)

IDENTITY & COMPOSITION

PRODUCT NAME
Sodium Bisulfite 25% ACS Grade

ALLIANCE CODE
sodium-bisulfite-25-acs-grade

GRADE
ACS

CONCENTRATION
25% w/w

CAS NUMBER
7631-90-5 Adjudicated

FORMULA
HNaO3S Adjudicated

MOLECULAR WEIGHT
104.06 Adjudicated

PRODUCT TYPE
Solution

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay	24.0 - 26.0 % w/w	—	—	Interpreted
Chloride (Cl)	0.005 % max	—	—	Interpreted
Heavy metals (as Pb)	0.00025 % max	—	—	Interpreted
Insoluble matter	0.0013 % max	—	—	Interpreted
Iron (Fe)	0.0005 % max	—	—	Interpreted
Composition	25 % sodium hydrogen sulfite in deionized water, by weight	—	By formulation; batch weights (scale ticket)	Interpreted

Values are reproduced from the current product reference. Source labels do not by themselves establish a supplier guarantee or a test result for your lot. Confirm applicable acceptance limits and request lot-specific documentation.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE ACS	25%	—	current
ACS Grade	40%	—	sodium-bisulfite-40-acs-grade
Technical	40%	—	sodium-bisulfite-40
Technical	25%	—	sodium-bisulfite-25
Technical	15%	—	sodium-bisulfite-15-technical-grade
ACS	10%	—	sodium-bisulfite-10-acs-grade
Technical	10%	—	sodium-bisulfite-10-technical-grade

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
ACS	—	—	sodium-bisulfite-15-acs-grade

Typical assay for each grade is the average of its recent lots. Confirm a grade meets your specification before substituting it.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Clear, colorless to light-yellow liquid	Published reference
Form	Liquid	Published reference
Odor	Slight sulfur dioxide odor	Published reference
pH	3.5-5.0	Published reference
Specific Gravity	~1.20	Published reference
Density	~1.18-1.22 g/cm^3 (25%, 20°C)	Published reference
Boiling Point	100 to 103 °C (212 to 217 °F) (aqueous solution)	Adjudicated
Melting Point	-9 to 0 °C (16 to 32 °F), freezing point (aqueous solution)	Adjudicated
Flash Point	Not applicable (non-combustible aqueous solution)	Published reference
Solubility (water)	Miscible with water	Published reference

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN2693 Adjudicated

HAZARD CLASS

8 Adjudicated

PACKING GROUP

III Adjudicated

PROPER SHIPPING NAME

Bisulfites, aqueous solutions, n.o.s. (Sodium bisulfite)

Adjudicated

GHS / OSHA HCS 2024

SIGNAL WORD

Danger Adjudicated

H-CODES (HAZARD STATEMENTS)

EUH031, H302, H318 Adjudicated

P-CODES (PRECAUTIONARY STATEMENTS)

P264, P270, P280, P301+P312, P305+P351+P338, P310, P330, P501

Adjudicated

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

— no canonical

ACGIH TLV

— no canonical

NIOSH REL

5 mg/m^3 TWA NIOSH Pocket Guide

NIOSH IDLH

— no canonical

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

APPLICATION GUIDANCE

Sodium Bisulfite 25% ACS Grade (ACS) application guidance is available on request. Contact Alliance Chemical Technical Services for grade-specific use recommendations.

STORAGE & HANDLING

RECOMMENDED STORAGE

Keep tightly closed in a cool, ventilated area in polyethylene, fiberglass or stainless-steel containers, away from acids and oxidizers. Protect from freezing (crystallizes near 5 °C).

Adjudicated

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

Acids (release toxic sulfur dioxide gas); oxidizing agents; nitrites and nitrates.

Adjudicated

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)

```
UN2693, Bisulfites, aqueous solutions, n.o.s. (Sodium bisulfite), 8, PG III
```

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

NMFC CLASS	PLACARD	PACKING GROUP
65	Corrosive	PG III

REVISION HISTORY

Last reviewed 2026-10-13 by Andre Taki, Chief Commercial Officer, DOT Hazmat–certified (49 CFR 172.704).

VERSION	DATE	CHANGE	TRIGGER
1.6	2026-10-13	Canonical data updated: 4 fields changed via the provenance/adjudication pipeline. • `storage_precautions` · canonical change (coa.data_provenance / adjudication) • `incompatible_materials` · canonical change (coa.data_provenance / adjudication) • `conditions_to_avoid` · canonical change (coa.data_provenance / adjudication) • `hazardous_decomposition_products` · canonical change (coa.data_provenance / adjudication)	`canonical_change`

VERSION	DATE	CHANGE	TRIGGER
1.5	2026-10-08	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. • ghsClassification · canonical change (coa.data_provenance / adjudication) • hazard_h_codes · canonical change (coa.data_provenance / adjudication) • hazard_p_codes · canonical change (coa.data_provenance / adjudication)	canonical_change
1.4	2026-10-07	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. • ghsClassification · canonical change (coa.data_provenance / adjudication) • hazard_h_codes · canonical change (coa.data_provenance / adjudication) • hazard_p_codes · canonical change (coa.data_provenance / adjudication)	canonical_change
1.3	2026-10-05	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. • oel_niosh_rel · canonical change (coa.data_provenance / adjudication)	canonical_change
1.2	2026-09-30	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. • boilingPoint · canonical change (coa.data_provenance / adjudication) • meltingPoint · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-07-22	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. • dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication)	canonical_change

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.