

TECHNICAL DATA SHEET

Sodium Metabisulfite - ACS Grade

ACS Grade

CAS NUMBER	ALLIANCE CODE	GENERATED
7681-57-4	sodium-metabisulfite-acs-grade	2026-08-31
REVISION	REVIEWED	
1.1	2026-07-17 · Andre Taki	

IDENTITY & COMPOSITION

PRODUCT NAME	ALLIANCE CODE
Sodium Metabisulfite – ACS Grade	sodium-metabisulfite-acs-grade
GRADE	CONCENTRATION
ACS Grade	—
CAS NUMBER	FORMULA
7681-57-4 PubChem	Na2O5S2 PubChem
MOLECULAR WEIGHT	PRODUCT TYPE
190.11 PubChem	pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (Na2S2O5)	Min. 97.0%	98.6%	—	ACS Reagent Chemicals
Chloride (Cl)	Max. 0.05 %	0.003 %	—	Supplier specification
Heavy metals (as Pb)	Max. 0.001 %	0.0001 %	—	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Identification	Pass Test	Passes test	—	Supplier specification
Insoluble matter	Max. 0.005 %	0.0008 %	—	Supplier specification
Iron (Fe)	Max. 0.002 %	0.0002 %	—	Supplier specification
Thiosulfate (S2O3)	Max. 0.05 %	0.005 %	—	Supplier specification
Sulfur dioxide (SO2), available	Min. 65.0%	66.4%	Iodometric titration (I2 / Na2S2O3 back-titration)	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.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE ACS Grade	—	—	current
Food Grade	—	—	sodium-metabisulfite-food-grade
Technical Grade	—	—	sodium-metabisulfite-technical-grade

Typical assay shown is the rolling-window mean from the sibling product's most recent lots. Grade selection drives downstream end-use — verify the sibling grade matches your specification before substitution.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	White to yellowish	Supplier specification
Odor	In the presences of traces of water, it develops an odor of sulfur dioxide	Published reference
pH	4 to 6	Supplier specification
Density	1.4 (NIOSH, 2024) – Denser than water; will sink	Published reference
Boiling Point	Decomposes (NIOSH, 2024)	Published reference
Melting Point	greater than 302 °F (Decomposes) (NIOSH, 2024)	Published reference
Solubility (water)	Clear, colorless to faintly yellow solution	Interpreted

MATERIALS OF CONSTRUCTION

MATERIAL	RATING	CONDITIONS	SOURCE
glass (glass bottle packaging)	Compatible	dry solid ACS-grade powder as supplied; source states packaging only, no concentration or temperature	fishersci.com

Compatibility is drawn from published manufacturer and supplier documentation for this product; each rating is sourced. Confirm against your specific duty cycle before equipment selection.

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

Not regulated **Adjudicated**

PACKING GROUP

Not regulated **Adjudicated**

HAZARD CLASS

Not regulated **Adjudicated**

PROPER SHIPPING NAME

Not regulated **Adjudicated**

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H302, H318 **Adjudicated**

P-CODES (PRECAUTIONARY STATEMENTS)

P264, P270, P280, P301+P312,
P305+P351+P338, P313, P330, 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

Used as an antioxidant, disinfectant or preservative agent (ACS/reagent grade material)

labdepotinc.com

High-purity laboratory applications, where ACS-grade specifications are the reference standard

labdepotinc.com

Oxygen scavenging in steam boiler water treatment and removal of excess chlorine from wastewater

essecousa.com

Reducing and sulfonating agent in chemical processing, including surfactants and polymerization

essecousa.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

Keep tightly closed in light-resistant containers; material is light sensitive and air sensitive

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INCOMPATIBILITIES

Consult the SDS for material-specific incompatibilities.

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 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.

SHELF LIFE

Consult Technical Services for product-specific shelf life

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

Not regulated for transport.

Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS
55

Freight classification is a fallback estimate. Verify with carrier before tender.

REVISION HISTORY

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

VERSION	DATE	CHANGE	TRIGGER
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). • <code>countryOfOrigin</code> · canonical adjudication / reground (<code>coa.data_provenance</code>) • <code>dotSubsidiaryHazardClass</code> · canonical adjudication / reground (<code>coa.data_provenance</code>) • <code>ghsClassification</code> · canonical adjudication / reground (<code>coa.data_provenance</code>) • <code>hazard_h_codes</code> · canonical adjudication / reground (<code>coa.data_provenance</code>) • <code>hazard_p_codes</code> · canonical adjudication / reground (<code>coa.data_provenance</code>) • <code>hsCode</code> · canonical adjudication / reground (<code>coa.data_provenance</code>) • <code>physicalProperties</code> · canonical adjudication / reground (<code>coa.data_provenance</code>)	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.