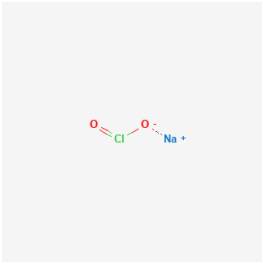
Technical Data Sheet

Sodium Chlorite Flakes 80% Technical Grade

Technical · 80%

Alliance Code	Revised	Revision
sodium-chlorite-80-technical	2026-11-22	1.5

CAS number 7758-19-2	UN number UN1496	Hazard class · packing group 5.1 · PG II
 Structure · PubChem	Grade Technical · 80%	Signal word **Danger**

Hazards

Oxidizer | Corrosive | Acute toxicity | Health hazard | Environmental hazard

H271 H301 H310 H314 H330 H373 H400 H410

Proper shipping name
Sodium chlorite

IDENTITY & COMPOSITION

PRODUCT NAME
Sodium Chlorite Flakes 80% Technical Grade

ALLIANCE CODE
sodium-chlorite-80-technical

GRADE
Technical

CONCENTRATION
80%

CAS NUMBER
7758-19-2 PubChem

FORMULA
NaClO2 PubChem

MOLECULAR WEIGHT
90.44 PubChem

PRODUCT TYPE
Solution

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (Sodium Chlorite as NaClO2)	77.5 - 82.5 wt%	—	—	Interpreted
Total Alkalinity (as NaOH)	10% as NaOH maximum	—	—	Interpreted
Arsenic	3 max. ppm	—	—	Interpreted
Sodium Chloride (NaCl)	11 - 19 wt%	—	—	Interpreted
Heavy Metals (as Pb)	20 max ppm	—	—	Interpreted
Hydrogen peroxide (as H2O2)	0.01 max. wt%	—	—	Interpreted
Lead	10 max. ppm	—	—	Interpreted
Mercury	0.1 max. ppm	—	—	Interpreted
Sodium carbonate (as Na2CO3)	2 max. wt%	—	—	Interpreted
Sodium chlorate (as NaClO3)	4 max. wt%	—	—	Interpreted
Sodium hydroxide (as NaOH)	3 max. wt%	—	—	Interpreted
Sodium Sulfate (Na2SO4)	3 max wt%	—	—	Interpreted
Water (by difference)	6 max wt%	—	—	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 Technical	80%	—	current
ACS	80%	—	sodium-chlorite-80-acs

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	White to off-white powder, crystals, or flakes	Interpreted
Odor	Odorless to slight chlorine odor	Adjudicated
pH	10–12 (10–25% solution)	Adjudicated
Specific Gravity	2.43 (crystal); bulk density about 0.7–1.1 g/cm^3 (flake)	Adjudicated
Melting Point	Decomposes at 180–200 °C (356–392 °F) without melting	Adjudicated
Flash Point	Not applicable	Adjudicated
Vapor Pressure	Negligible (< 1 hPa at 25 °C)	Adjudicated
Solubility (water)	Freely soluble in water (about 390–590 g/L at 20–25 °C)	Adjudicated

Oxidizer — decomposition rate and gas-evolution data may apply. Consult the SDS for material-of-construction guidance under shipping and storage conditions.

MATERIALS OF CONSTRUCTION SERVICE ENVELOPE ≈ 80%

MOC ratings are required for this chemical class but no compatibility data has been seeded yet. Treat as no-data and consult Alliance Technical Services before equipment selection.

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

UN1496 Adjudicated

HAZARD CLASS

5.1 Adjudicated

PACKING GROUP

II Adjudicated

PROPER SHIPPING NAME

Sodium chlorite Adjudicated

GHS / OSHA HCS 2024

SIGNAL WORD

Danger Adjudicated

H-CODES (HAZARD STATEMENTS)

H271, H301, H310, H314, H330, H373, H400, H410

Adjudicated

P-CODES (PRECAUTIONARY STATEMENTS)

P210, P220, P260, P262, P264, P270, P271, P273, P280, P283, P284, P301+P310, P301+P330+P331, P302+P352, P303+P361+P353, P304+P340, P305+P351+P338, P306+P360, P310, P313, P314, P320, P321, P330, P362, P363, P370+P378, P371+P380+P375, P391, P403+P233, P405, P420, 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: NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

HEALTH & FIRE HAZARD

ACUTE TOXICOLOGY

LD_{50} ORAL

165–284 mg/kg (rat), the basis for H301

Adjudicated

LD_{50} DERMAL (RABBIT)

107–134 mg/kg (sodium chlorite); OxyChem reports > 2,000 mg/kg for its flake product

Adjudicated

LC_{50} INHALATION

0.23–0.29 mg/L (dust, rat, 4 h)

Adjudicated

Acute toxicology values from SDS Section 11 or NIOSH RTECS.

APPLICATIONS

Chlorine dioxide generation for industrial bleaching and oxidation; textile and pulp bleaching; industrial oxidizer.

Adjudicated

Restrictions on Use: For trained industrial users only. Strong oxidizer: never mix with acids (releases toxic, explosive chlorine dioxide gas), combustibles, organics or reducing agents. Contaminated clothing can ignite. Not represented by Alliance Chemical as a disinfectant, sanitizer or drinking-water treatment.

STORAGE & HANDLING

RECOMMENDED STORAGE

Keep tightly closed in a cool, dry, well-ventilated area, separated from acids, combustibles, reducing agents and organics. Do not store on wooden pallets. Store locked up.

Adjudicated

HANDLING PRECAUTIONS

Use PPE including face shield, chemical-resistant gloves, and apron. Avoid contamination — never return unused material to the original container. Ground all transfer equipment.

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

INCOMPATIBILITIES

Acids (release chlorine dioxide, toxic and explosive); reducing agents; combustible and organic materials, oils and solvents; finely powdered metals; hypochlorites; ammonium compounds.

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)

```
UN1496, Sodium chlorite, 5.1, PG II
```

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

NMFC CLASS	PLACARD	PACKING GROUP
65	Oxidizer	PG II

REVISION HISTORY

Last reviewed 2026-11-22 by Andre Taki, Chief Commercial Officer, DOT Hazmat–certified (49 CFR 172.704).

VERSION	DATE	CHANGE	TRIGGER
1.5	2026-11-22	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. • `recommended_use` · canonical change (coa.data_provenance / adjudication) • `restrictions_on_use` · canonical change (coa.data_provenance / adjudication)	`canonical_change`

VERSION	DATE	CHANGE	TRIGGER
1.4	2026-10-08	Canonical data updated: 21 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) • synonyms · canonical change (coa.data_provenance / adjudication) • recommended_use · canonical change (coa.data_provenance / adjudication) • restrictions_on_use · canonical change (coa.data_provenance / adjudication) • odor · canonical change (coa.data_provenance / adjudication) • pH · canonical change (coa.data_provenance / adjudication) • meltingPoint · canonical change (coa.data_provenance / adjudication) • flashPoint · canonical change (coa.data_provenance / adjudication) • specificGravity · canonical change (coa.data_provenance / adjudication) • solubility · canonical change (coa.data_provenance / adjudication) • vaporPressure · canonical change (coa.data_provenance / adjudication) • partitionCoefficient · canonical change (coa.data_provenance / adjudication) • oel_other · 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) • storage_precautions · canonical change (coa.data_provenance / adjudication) • rcra_waste_codes · canonical change (coa.data_provenance / adjudication) • cercla_rq · canonical change (coa.data_provenance / adjudication)	canonical_change
1.3	2026-09-30	Canonical data updated: 1 field changed via the provenance/adjudication pipeline. • meltingPoint · canonical change (coa.data_provenance / adjudication)	canonical_change
1.2	2026-07-22	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. • dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication) • dotProperShippingName · canonical change (coa.data_provenance / adjudication) • ghsClassification · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
1.1	2026-07-17	Canonical data re-verified: 5 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). • 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)	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.