Safety Data Sheet · OSHA HCS 2024

Sodium Chlorite Flakes 80% ACS Grade

ACS · 80%

Standard	Revised	Emergency
OSHA HCS 2024 · GHS Rev. 7	2026-11-12	Chemtel 1-800-255-3924 (24/7)

1 Identification

Product Identifier	Sodium Chlorite Flakes 80% ACS Grade
Grade	ACS
Concentration	80%
CAS Number	7758-19-2
Chemical Formula	$NaClO_2$
Molecular Weight	90.44 g/mol
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Synonyms	Sodium chlorite, technical flake; chlorous acid, sodium salt
Recommended Use	Chlorine dioxide generation for water treatment and disinfection; laboratory oxidizer and reagent.
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.

2 Hazard Identification



Oxidizer · Corrosive · Acute toxicity · Health hazard · Environmental hazard

Classification	Oxidizing solids, Category 1 Acute toxicity (oral), Category 3 Acute toxicity (dermal) Skin corrosion/irritation, Category 1 Serious eye damage/eye irritation, Category 1 Acute toxicity (inhalation) Specific target organ toxicity, repeated exposure, Category 2 Hazardous to the aquatic environment, acute hazard, Category 1 † Hazardous to the aquatic environment, long-term hazard, Category 1 † † GHS environmental hazard class; not adopted under OSHA HCS (29 CFR 1910.1200).
Signal Word	**Danger**

Hazard Statements

- H271 May cause fire or explosion; strong oxidizer
- H301 Toxic if swallowed
- H310 Fatal in contact with skin
- H314 Causes severe skin burns and eye damage
- H330 Fatal if inhaled
- H373 May cause damage to organs through prolonged or repeated exposure
- H400 Very toxic to aquatic life
- H410 Very toxic to aquatic life with long lasting effects

Precautionary Statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P220 Keep away from clothing and other combustible materials.
- P260 Do not breathe dust, fume, gas, mist, vapors or spray.
- P262 Do not get in eyes, on skin, or on clothing.
- P264 Wash hands and face thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves, protective clothing, and eye/face protection.
- P283 Wear fire resistant or flame retardant clothing.
- P284 Wear respiratory protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302+P352 IF ON SKIN: Wash with plenty of water and soap.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P306+P360 IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
- P310 Immediately call a POISON CENTER or doctor.
- P313 Get medical advice or attention.
- P314 Get medical advice or attention if you feel unwell.
- P320 Specific treatment is urgent (see first-aid information on this label).
- P321 Specific treatment (see first-aid information on this label).
- P330 Rinse mouth.
- P362 Take off contaminated clothing and wash before reuse.
- P363 Wash contaminated clothing before reuse.
- P370+P378 In case of fire: Use water spray or fog in large quantities to extinguish.
- P371+P380+P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.
- P391 Collect spillage.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P420 Store separately.
- P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Classification, hazard (H) and precautionary (P) statements and pictograms per OSHA HCS 2024 (29 CFR 1910.1200, Appendices A–C), aligned with GHS Rev. 7.

3 Composition / Information on Ingredients

Component	CAS No.	Formula	Concentration
Sodium chlorite	7758-19-2	NaClO2	77-83% (w/w)
Sodium chloride	7647-14-5	NaCl	11-19% (w/w)
Water	7732-18-5	H2O	1-5% (w/w)

Concentrations are nominal; lot-specific values appear on the Certificate of Analysis. Components not contributing to classification are omitted.

4 First-Aid Measures

Eyes

Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.

Skin

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.

Inhalation

Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Ingestion

Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

Most Important Symptoms and Effects

Causes burns to the skin, eyes and mucous membranes; eye contact may cause permanent damage including blindness; ingestion burns the mouth, throat and stomach.

Ingestion may cause nausea, vomiting and abdominal pain; larger amounts may cause systemic poisoning.

Absorption through the skin may cause systemic poisoning.

Inhalation may cause coughing, shortness of breath and headache; high concentrations may cause systemic poisoning.

Immediate Medical Attention and Special Treatment

Immediate medical attention is required after eye or skin contact or ingestion; tissue damage may continue after exposure ends.

Get immediate medical attention after any significant exposure; symptoms may be delayed.

5 Fire-Fighting Measures

Suitable Extinguishing Media

Water spray or fog in large quantities. Do NOT use dry chemical or CO2.

Unsuitable Extinguishing Media

Do not use dry chemical, CO2, or foam.

Specific Hazards Arising from the Chemical

Oxidizer: may intensify fire and ignite combustible materials (wood, paper, oil). Fire may release corrosive and toxic gases. Containers may rupture when heated.

Protective Equipment

Wear self-contained breathing apparatus and full protective clothing.

Hazardous Combustion Products

Oxygen (feeds fire); chlorine dioxide on contact with acids; chlorine, hydrogen chloride and sodium oxides on thermal decomposition.

6 Accidental Release Measures

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Hazard-Specific Precautions	Keep away from combustible materials. Do not absorb with sawdust, paper or other combustible absorbents. Do not touch spilled material without protective equipment. Neutralize residue only with a method suitable for the material, then collect.
Environmental Precautions	Prevent leakage or spillage from entering drains, sewers, or waterways.
Containment & Cleanup	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

7 Handling and Storage

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area away from combustible materials and heat. Keep away from incompatible materials (see Section 10). Keep containers tightly closed.
Specific Storage Precautions	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.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Limit	Value
Other Limits	No OSHA, NIOSH or ACGIH limit; manufacturer guideline 1 mg/m^3 TWA (OxyChem)

Engineering Controls	Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.
Eye/Face Protection	Wear chemical safety goggles or face shield.
Skin Protection	Wear chemical-resistant gloves and protective clothing.
Respiratory Protection	Use NIOSH-approved respirator if exposure limits are exceeded or irritation occurs.

Exposure limits sourced from NIOSH Pocket Guide, OSHA 29 CFR 1910.1000 and ACGIH TLVs.

9 Physical & Chemical Properties

Appearance	White flakes / powder
Odor	Odorless to slight chlorine odor
Odor Threshold	No data available
pH	10–12 (10–25% solution)
Melting Point / Freezing Point	~190 °C (decomposes)
Boiling Point	No data available

Flash Point	No data available
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	No data available
Vapor Pressure	Negligible (< 1 hPa at 25 °C)
Vapor Density	No data available
Relative Density	2.43 (crystal); bulk density about 0.7–1.1 g/cm^3 (flake)
Solubility	Freely soluble in water (about 390–590 g/L at 20–25 °C)
Partition Coefficient (n-octanol/water)	log Kow -2.7
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Particle Characteristics	No data available

Values shown reflect product-specific canonical data. Lot-specific ranges may vary; see the Certificate of Analysis for the shipped lot.

10 Stability and Reactivity

Reactivity	Oxidizer: reacts with combustible and reducing materials, which may cause fire.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat above about 180 °C (decomposes), moisture, sunlight, contamination with any foreign material, and shock or friction when contaminated.
Incompatible Materials	Acids (release chlorine dioxide, toxic and explosive); reducing agents; combustible and organic materials, oils and solvents; finely powdered metals; hypochlorites; ammonium compounds.
Hazardous Decomposition Products	Oxygen (feeds fire); chlorine dioxide on contact with acids; chlorine, hydrogen chloride and sodium oxides on thermal decomposition.

11 Toxicological Information

See below for route-specific acute toxicity data.

Likely Routes of Exposure	Inhalation, skin contact, eye contact, ingestion.
Symptoms	Causes burns to the skin, eyes and mucous membranes; eye contact may cause permanent damage including blindness; ingestion burns the mouth, throat and stomach. Ingestion may cause nausea, vomiting and abdominal pain; larger amounts may cause systemic poisoning. Absorption through the skin may cause systemic poisoning. Inhalation may cause coughing, shortness of breath and headache; high concentrations may cause systemic poisoning.
Delayed and Chronic Effects	Prolonged or repeated exposure may damage organs.

Route	Value

Route	Value
LD50 Oral (rat)	165–284 mg/kg (rat), the basis for H301
LD50 Dermal (rabbit)	107–134 mg/kg (sodium chlorite); OxyChem reports > 2,000 mg/kg for its flake product
LC50 Inhalation (rat, 4h)	0.23–0.29 mg/L (dust, rat, 4 h)

Carcinogen Classification

Agency	Status
IARC	Group 3 — not classifiable as to its carcinogenicity to humans (Sodium chlorite; IARC agent: Sodium chlorite, Vol. 52).
NTP	Not listed as carcinogen.
OSHA	Not listed as carcinogen.

12 Ecological Information

Aquatic Hazard

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

Ecotoxicity

Fish NOEC (chronic): 3.3 mg/L (Oncorhynchus mykiss — MATC, larval growth rate)

Persistence & Degradability

Strong oxidizer; chlorite ion is the toxic aquatic moiety, reduced/consumed in the environment

Bioaccumulative Potential

BCF No bioaccumulation expected (inorganic ion)

Mobility in Soil

Not Available

13 Disposal Considerations

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

EPA RCRA Waste Codes

D001 (ignitable: DOT oxidizer, 40 CFR 261.21(a)(4)); may also be D002 in solution (pH ≥ 12.5). Not a P- or U-listed waste.

If discarded, this material may be an ignitable hazardous waste as an oxidizer (EPA RCRA D001, 40 CFR 261.21(a)(4)). If discarded, this material may be a corrosive hazardous waste (EPA RCRA D002, 40 CFR 261.22): aqueous with pH ≤ 2 or ≥ 12.5, or a liquid that corrodes steel at more than 6.35 mm per year. The waste generator must make the final hazardous-waste determination.

14 Transport Information

US DOT (49 CFR)

UN Number

UN1496

Proper Shipping Name

Sodium chlorite

Hazard Class

5.1

Packing Group

II

Environmental Hazards	Meets GHS aquatic-hazard criteria; may be a marine pollutant under the IMDG Code (vessel transport).

IMDG / IATA classifications may differ from US DOT. Verify current regulations before international shipment.

15 Regulatory Information

Inventory / List	Status
California Proposition 65	Not listed
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Not listed
CERCLA Reportable Quantity (RQ)	Not a CERCLA hazardous substance (sodium chlorite is not on 40 CFR 302.4); no RQ. Not an EPCRA Section 313 chemical.

SARA 311/312 hazard categories correspond to the GHS classification in Section 2. Data retrieved as of: California Proposition 65 2026-11-02; US EPA TSCA Active Inventory 2026-11-02; EPCRA SARA 313 (TRI) 2026-11-02.

16 Other Information

Revision Date	2026-11-12
Format	16-section format per OSHA HCS 2024 (29 CFR 1910.1200, Appendix D), aligned with GHS Rev. 7.

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