

# Safety Data Sheet

## Sodium Chlorate

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Sodium Chlorate  
**Recommended Use:** Science education applications  
**Synonyms:** N/A  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



May cause fire or explosion; strong oxidizer. Harmful if swallowed. Causes eye irritation. Toxic to aquatic life.

**GHS Classification:**

Oxidizing Solid Category 1, Serious Eye Damage/Eye Irritation Category 2B, Hazardous to the aquatic environment - Acute Category 2, Skin Corrosion/Irritation Category 3, Acute Toxicity - Oral Category 4, Acute Toxicity - Inhalation Dust / Mist Category 5

**Other Safety Precautions:** In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

### Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Sodium Chlorate	7775-09-9	100

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
**Skin Contact:** IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.  
**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires. Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Product is a strong oxidizer. Contact with combustible materials, flammable materials, or powdered metals can cause fire or explosion. Can react violently with reducing agents.

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Hazardous Combustion Products: Hydrogen chloride, Sodium Oxides

## Section 6 Spill or Leak Procedures

### Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away. Avoid contact with clothing. Avoid creating and inhaling dust. Avoid contact with skin and eyes. Reduce airborne dust and prevent scattering by moistening with water Vacuum or sweep up material and place in a disposal container Ensure clean-up measures are in compliance with OSHA (29 CFR 1910.120). Do not allow the spilled product to enter public drainage system or open waterways.

## Section 7 Handling and Storage

**Handling:** Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep/Store away from clothing/.../combustible materials. Take any precaution to avoid mixing with combustibles. Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear fire/flame resistant/retardant clothing. Use only in well-ventilated areas. Avoid contact with skin and eyes. Harmful if swallowed. Do not breathe dust.

**Storage:** Store in a secure area suitable for corrosives and oxidizing agents. Store separately and away from flammable and combustible materials.

**Storage Code:** Yellow - Reactive. Store separate and away from incompatible material.

## Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
No data available	N/A	N/A	N/A	N/A

### Control Parameters

**Engineering Measures:** No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** No respiratory protection required under normal conditions of use. Respiratory protection may be required in addition to ventilation depending upon conditions of use. NIOSH approved air purifying respirator with dust/mist filter.

**Respirator Type(s):** NIOSH approved air purifying respirator with dust/mist filter.

**Eye Protection:** Wear chemical splash goggles when handling this product. Have an eye wash station available.

**Skin Protection:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

**Gloves:** Nitrile

## Section 9 Physical Data

<b>Formula:</b> NaClO <sub>3</sub>	<b>Vapor Pressure:</b> N/A
<b>Molecular Weight:</b> 106.45	<b>Evaporation Rate (BuAc=1):</b> N/A
<b>Appearance:</b> Crystals	<b>Vapor Density (Air=1):</b> N/A
<b>Odor:</b> No data available	<b>Specific Gravity:</b> 2.490 at 15 °C
<b>Odor Threshold:</b> No data available	<b>Solubility in Water:</b> Practically Insoluble
<b>pH:</b> No data available	<b>Log Pow (calculated):</b> No data available
<b>Melting Point:</b> 248 - 261 C	<b>Autoignition Temperature:</b> No data available
<b>Boiling Point:</b> 299 C	<b>Decomposition Temperature:</b> No data available
<b>Flash Point:</b> No data available	<b>Viscosity:</b> No data available
<b>Flammable Limits in Air:</b> N/A	<b>Percent Volatile by Volume:</b> N/A

## Section 10 Reactivity Data

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**Reactivity:** No data available  
**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** None known.  
**Incompatible Materials:** Alcohols, Strong reducing agents, Organic Compounds  
**Hazardous Decomposition Products:** Sodium Oxides, Hydrogen chloride  
**Hazardous Polymerization:** Will not occur

## Section 11 Toxicity Data

**Routes of Entry:** Inhalation, ingestion, eye or skin contact.  
**Symptoms (Acute):** N/A  
**Delayed Effects:** No data available

Acute Toxicity:	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
<b>Chemical Name</b> Sodium Chlorate	7775-09-9	Oral LD50 Rat 1200 mg/kg	Dermal LD50 Rabbit > 10000 mg/kg	Inhalation LC50 (1h) Rat = 28000 MG/CU M

Carcinogenicity:	CAS Number	IARC	NTP	OSHA
<b>Chemical Name</b> No data available	7775-09-9	Not listed	Not listed	Not listed

**Chronic Effects:**  
**Mutagenicity:** No evidence of a mutagenic effect.  
**Teratogenicity:** No evidence of a teratogenic effect (birth defect).  
**Sensitization:** No evidence of a sensitization effect.  
**Reproductive:** No evidence of negative reproductive effects.  
**Target Organ Effects:**  
**Acute:** See Section 2  
**Chronic:** Not listed as a carcinogen by IARC, NTP or OSHA.

## Section 12 Ecological Data

**Overview:** Severe ecological hazard. This product may be toxic to plants and/or wildlife. Keep out of waterways.  
**Mobility:** No data  
**Persistence:** No data  
**Bioaccumulation:** No data  
**Degradability:** No data  
**Other Adverse Effects:** No data

Chemical Name	CAS Number	Eco Toxicity
Sodium Chlorate	7775-09-9	24 HR LC50 ONCORHYNCHUS MYKISS 4200 MG/L 96 HR LC50 PIMEPHALES PROMELAS 13500 MG/L 96 HR LC50 ONCORHYNCHUS MYKISS 1750 MG/L 96 HR LC50 CYPRINUS CARPIO 7090 MG/L 24 HR EC50 DAPHNIA MAGNA 1093 MG/L

## Section 13 Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.  
**Waste Disposal Code(s):** Not Determined

## Section 14 Transport Information

**Ground - DOT Proper Shipping Name:** \_\_\_\_\_ **Air - IATA Proper Shipping Name:** \_\_\_\_\_

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UN1495  
SODIUM CHLORATE  
Division 5.1  
PG II  
\*\*\*Ltd Qty = / < 1 Kg.\*\*\*

UN number: 1495 Class: 5.1 Packing group: II Proper shipping name: Sodium chlorate

## Section 15

## Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
No data available	7775-09-9	No	No	No	No	No

## Section 16

## Additional Information

**Revised: 09/09/2015**

**Replaces: 09/03/2014**

**Printed: 10-29-2015**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health