



**ALDON CORPORATION**

# MATERIAL SAFETY DATA SHEET

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MSDS No. SS 410  
Effective Date August 31, 1998

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	SODIUM CHLORATE	 CHEMTREC <b>800-424-9300</b> Day 716-226-6177 NFPA HAZARD RATING LEAST SLIGHT MODERATE HIGH EXTREME 0 1 2 3 4 HMIS * 0 1 2 3 4	<b>Health</b>	1
<b>Chemical Synonyms</b>	N/A		<b>Fire</b>	0
<b>Formula</b>	NaClO <sub>3</sub>		<b>Reactivity</b>	3
<b>Unit Size</b>	up to 2.5 Kg.			
<b>C.A.S. No.</b>	7775-09-9			

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Sodium Chlorate	99%	See Section V.
<b>DANGER! STRONG OXIDIZER! HEAT, SHOCK OR FRICTION MAY CAUSE FIRE OR EXPLOSION, ESPECIALLY IF CONTAMINATED WITH OTHER MATERIAL. HARMFUL IF SWALLOWED.</b>		

## SECTION III PHYSICAL DATA

Melting Point (°F)	248-261°C (478°-501°F)	Specific Gravity (H <sub>2</sub> O = 1)	2.490 at 15°C
Boiling Point (°F)	Decomposes at 298.8°C (570°F)	Percent Volatile by Volume (%)	Non-volatile (NA).
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (=1)	Non-volatile (NA).
Vapor Density (Air=1)	Data not listed.		
Solubility in Water	79 grams per 100 mL. water at 20°C.		
Appearance & Odor	White, crystalline powder or crystals; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Non-combustible (NA).	<b>Flammable Limits in Air % by Volume</b>	Lower	Upper
<b>Extinguisher Media</b>	Flood with water.		-----	-----

## SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 140)

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Powerful oxidizing material. Forms explosive mixtures with combustible, organic or other easily oxidizable materials. These mixtures are easily ignited by friction or heat. Containers may explode when involved in fire. A fire and explosive hazard on contact with oxidizable materials and when contaminated, heat and shock sensitive. Forms explosive mixtures with carbonaceous matter. Decomposes above 570°F (300°C) liberating oxygen, hence smothering type fire extinguishing agents are not effective.

D.O.T. **SODIUM CHLORATE, 5.1, UN 1495, PG II**

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA

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**Threshold Limited Value** None established. (ACGIH 1992-93). Toxicity data:  
Orl-rat LD50: 1200 mg/kg; Rbt LDLo: 8000 mg/kg.

**Effects of Overexposure**  
**INHALATION:** Repeated or prolonged exposure to high dust concentrations may result in methemoglobin formation and rupturing of red blood cells.  
**SKIN AND EYES:** Causes irritation to skin, eyes and mucous membranes.  
**INGESTION:** Of large quantities can be fatal. Symptoms are abdominal pain, nausea, vomiting, cyanosis and collapse.

**Emergency and First Aid Procedures**  
**INGESTION:** If swallowed, if conscious, give one or two glasses of water. Induce vomiting and call physician immediately. Never give anything by mouth to an unconscious person. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Flush with water. Avoid using oils, greases or protective creams on skin. **INHALATION:** Remove to fresh air. If symptoms of illness develop, get medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b> Oxidizable materials, high temperatures, excess friction.
	<b>Stable</b>	X	

**Incompatibility (Materials to Avoid)** Keep out of contact with organic matter or other oxidizable substances, sulfuric acid, sulfur, iodides, zinc chloride, powdered metals, phosphorous, ammonium compounds; decomposed by heat.

**Hazardous Decomposition Products** When heated to decomposition, emits oxygen, and possible unstable chlorine dioxide which decomposes spontaneously yielding chlorine.

<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>
<b>May Occur</b>	<b>Will Not Occur</b>
	X
	Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled**  
 Cover with soda ash (sodium carbonate), scoop up and place in a suitable container for proper disposal. Flush spill area with soap and water.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in accordance with federal, state and local regulations.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

<b>Ventilation</b>	<b>Local Exhaust</b>	Yes.	<b>Special</b>	No.
	<b>Mechanical (General)</b>	Yes.	<b>Other</b>	No.

**Protective Gloves** Rubber. **Eye Protection** Chemical safety glasses.

**Other Protective Equipment** Smock, apron, goggles, ventilation hood, proper gloves, eye wash station, fire extinguisher.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place away from flammable, combustible materials. Clothing contaminated with chlorate or its solutions is **DANGEROUSLY FLAMMABLE!** Wash thoroughly after handling.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.

Do not get in eyes, on skin or on clothing. Remove and wash contaminated clothing. Avoid storage or handling on wood floors.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

<b>Revision</b> No. 5	<b>Date</b> 8/31/98	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
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