

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Sodium chlorate
CAS number	7775-09-9
Synonyms	No information available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids	Category 1
Acute oral toxicity	Category 4
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Kidney, Blood	

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

May cause fire or explosion; strong oxidizer. Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

Prevention

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using through product. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep/store away from clothing/ other combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective gloves/protective clothing/eye protection/face protection. Wear fire/flame resistant/retardent clothing.

Response

Get medical attention/advice if you feel unwell.

Skin

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. Rinse mouth

Fire

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. In case of fire: Use CO₂, dry chemical, or foam for extinction.

Disposal

Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Toxic to aquatic life with long lasting effects. May cause pulmonary edema.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Sodium chlorate	-	7775-09-9	>95%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Get medical attention immediately if symptoms occur.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
If swallowed	Do not induce vomiting. Call a physician or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

No information available. May cause methemoglobinemia.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable extinguishing media No information available

5.2 Specific hazards arising from the substance or mixture

Oxidizer: contact with combustible/organic material may cause fire. Decomposes violently at elevated temperatures. Thermal decomposition can lead to release of irritating gases and vapors.

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

Flash Point No data available

Autoignition Temperature No data available

Explosion limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

NFPA

Health	Flammability	Instability	Physical hazards
2	0	1	OX

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

6.2 Environmental precautions

Should not be released into the environment. Prevent product from entering drains. Keep out of waterways. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep container tightly closed in a dry and well-ventilated place. Keep combustibles (wood, paper, oil, etc) away from spilled material.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Precautions on safe handling**

Wear personal protective equipment. Ensure adequate ventilation. Keep away from clothing and other combustible materials. Avoid dust formation. Do not breathe dust. Wash hands before breaks and immediately after handling the product.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities**Storage conditions**

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Do not store near combustible materials.

Incompatibilities

No information available.

SECTION 8: Exposure controls/personal protection**8.1 Occupational exposure limits**

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

This product does not contain any hazardous material with occupational exposure limits established by the region specific regulatory bodies.

US. ACGIH Threshold Limit Values

This product does not contain any hazardous material with occupational exposure limits established by the region specific regulatory bodies.

US. NIOSH: Pocket Guide to Chemical Hazards

This product does not contain any hazardous material with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits

No information available

8.2 Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulation found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

No information available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Odorless

Odor Threshold	No information available
pH	No information available
Melting Point/Range	248 - 261 °C / 478.4 - 501.8 °F
Boiling Point/Range	No information available
Evaporation Rate	No information available
Flammability (solid)	No information available
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Density	2.49
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	No information available
Viscosity	No information available
Molecular Formula	ClNaO3
Molecular Weight	106.44
VOC Content(%)	No information available
Oxidizing properties	Oxidizer

9.2 Other safety information

No information available

SECTION 10: Stability and reactivity

10.1 Reactivity

No reactivity

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

None under normal processing

10.4 Conditions to avoid

Incompatible products. Combustible material. Avoid shock and friction. Heat, flames and sparks.

10.5 Incompatible materials

Organic materials, powdered metals, ammonia, acids, strong reducing agents, alcohols.

10.6 Hazardous decomposition products

Chlorine, sodium oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium chlorate	1200 mg/kg (rat)	Not listed	28 g/m ³ (rat) 1hr

Skin corrosion/irritation

May cause skin irritation.

Serious eye damage/eye irritation

May cause eye irritation

Respiratory or skin sensitization

May cause respiratory tract irritation.

Germ cell mutagenicity

Mutagenic effects have occurred in experimental animals.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Sodium chlorate	7775-09-9	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

None known

Specific target organ toxicity - repeated exposure

Kidney, Blood

Reproductive toxicity

No information available

Chronic effects

No information available

11.2 Additional Information

No information available

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Sodium chlorate	LC50	Freshwater fish	7090 mg/L 96 h
	LC50	Freshwater fish	1750 mg/L 96 h
	LC50	Freshwater fish	13500 mg/L 96 h

12.2 Persistence and degradability

No information available

12.3 Bio accumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available

12.7 Other adverse effects

See actual entry in RTECS for complete information.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN-No	UN1495
Proper Shipping Name	SODIUM CHLORATE
Hazard Class	5.1
Packing Group	II

IMDG

UN-No	UN1495
Proper Shipping Name	SODIUM CHLORATE
Hazard Class	5.1
Packing Group	II

IATA

UN-No	UN1495
Proper Shipping Name	SODIUM CHLORATE
Hazard Class	5.1
Packing Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not listed

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed

SARA 304 Emergency release notification
Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous
Listed: Acute Health Hazard, Chronic Health Hazard

SARA 313 (TRI reporting)
Not listed

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not listed

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not listed

Safe Drinking Water Act
Not listed

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Not listed

US state regulations

US. Massachusetts RTK - Substance List
Listed

US. New Jersey Worker and Community Right-to-Know Act
Listed

US. Pennsylvania Worker and Community Right-to-Know Law
Listed

California Proposition 65
Not listed

SECTION 16: Other information

Issue date: 11/24/2010
Revision 1: 09/07/2023
Revision 2: 07/22/2024

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.