Material Safety Data Sheet

Sodium perchlorate monohydrate

MSDS# 21490

Section 1 - Chemical Product and Company Identification

MSDS Name:	Sodium perchlorate monohydrate
Catalog Numbers:	AC343630000, AC343630010, AC343631000, S360-212, S360-500, S490-100, S490-500
Synonyms:	Perchloric acid, sodium salt, monohydrate.
Company Identification:	Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410
For information in the US, call:	201-796-7100
Emergency Number US:	201-796-7100
CHEMTREC Phone Number, US:	800-424-9300

Section 2 - Composition, Information on Ingredients

Risk Phrases:

CAS#:	7791-07-3
Chemical Name:	Sodium perchlorate monohydrate
%:	97
EINECS#:	unlisted
Hazard Symbols:	

Text for R-phrases: see Section 16

Hazard Symbols: XN O

Risk Phrases: 22 9

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Strong oxidizer. Contact with other material may cause a fire. Causes severe eye irritation. Explosive when mixed with combustible material. Can form shock sensitive mixtures with finely divided metals, strong reducing agents and sulfur. High temperatures can cause violent decomposition or explosion. Target Organs: Eyes, thyroid.

Potential Health Effects

Eye:	Causes severe eye irritation.
Skin:	May cause skin irritation. Not expected to cause an allergic skin reaction.
Ingestion:	May cause irritation of the digestive tract.
Inhalation:	May cause respiratory tract irritation.
Chronic:	May interfere with iodine uptake of the thyroid gland and enlarge it.

Section 4 - First Aid Measures

Eyes:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse. Destroy contaminated shoes.
Ingestion:	Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with other material may cause fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Some oxidizers may react explosively with hydrocarbons(fuel). May accelerate burning if involved in a fire.

Extinguishing Media: Use water only! May require flooding with water in order to eliminate hazardous reactions since the materials generate their own oxygen. For large fires flood fire with water from a distance. Carbon dioxide may provide sufficient cooling to extinguish small fires, but dry chemical powder is ineffective because it cannot smother a self-sustaining fire.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: ; instability: OX

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Do not use combustible materials such as paper towels to clean up spill.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Keep from contact with clothing and other combustible materials. Avoid breathing dust. Destroy contaminated leather clothing. Inform laundry personnel of contaminant's hazards. Do not take working clothes home.

Storage: Do not store near combustible materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from reducing agents. Avoid storage on wood floors.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium perchlorate anhydrous	none listed	none listed	none listed
Sodium perchlorate monohydrate	none listed	none listed	none listed

OSHA Vacated PELs: Sodium perchlorate anhydrous: None listed Sodium perchlorate monohydrate: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: 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:	Wear appropriate gloves to prevent skin exposure.
Clothing:	Wear appropriate clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations 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.

Section 9 - Physical and Chemical Properties

Physical State:	Crystals
Color:	white
Odor:	odorless
pH:	6-8 (5% solution)
Vapor Pressure:	Not applicable.
Vapor Density:	Not available
Evaporation Rate:	Not applicable.
Viscosity:	Not applicable.
Boiling Point:	Not available
Freezing/Melting Point:	482 deg C (899.60°F)
Decomposition Temperature:	
Solubility in water:	Soluble
Specific Gravity/Density:	2.02 g/cm3
Molecular Formula:	NaO4Cl.H20
Molecular Weight:	140.46

Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures. Deliquescent (tending to absorb atmospheric water vapor and become liquid).
Conditions to Avoid:	Dust generation, excess heat, contamination.
Incompatibilities with Other Materials	Strong reducing agents, strong acids, amines, ammonia, finely powdered metals, sulfur, hydrocarbons, combustible materials.
Hazardous Decomposition Products	Hydrogen chloride, chlorine, oxygen, sodium oxide, chlorine dioxide, which may be spontaneously explosive.
Hazardous Polymerization	Has not been reported.

Section 11 - Toxicological Information

RTECS#:	CAS# 7601-89-0: SC9800000 CAS# 7791-07-3: SC9850000
LD50/LC50:	RTECS: **CAS# 7601-89-0:** Oral, rat: LD50 = 2100 mg/kg; . RTECS: **CAS# 7791-07-3:**.
Carcinogenicity:	Sodium perchlorate anhydrous - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Sodium perchlorate monohydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: SODIUM PERCHLORATE
Hazard Class: 5.1
UN Number: UN1502
Packing Group: II

Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN O

Risk Phrases:

R 22 Harmful if swallowed.

R 9 Explosive when mixed with combustible material.

Safety Phrases:

S 13 Keep away from food, drink and animal feeding stuffs.

S 22 Do not breathe dust.

S 27 Take off immediately all contaminated clothing.

WGK (Water Danger/Protection)

CAS# 7601-89-0: 1

CAS# 7791-07-3: Not available

Canada

CAS# 7601-89-0 is listed on Canada's DSL List

Canadian WHMIS Classifications: C, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7601-89-0 is not listed on Canada's Ingredient Disclosure List.

CAS# 7791-07-3 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

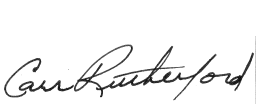
CAS# 7601-89-0 is listed on the TSCA Inventory.

CAS# 7791-07-3 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form in on the Inventory (40CFR720.3(u)(2)).

Section 16 - Other Information

MSDS Creation Date: 12/12/1997

Revision #7 Date 7/20/2009



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