

Section 1 Chemical Product and Company Information



901 Janesville Ave.  
P.O. Box 901  
Fort Atkinson, WI 53538-0901

CHEMTREC 24 Hour Emergency  
Phone Number (800) 424-9300  
For laboratory use only.  
Not for drug, food or household use.

Product	SODIUM NITRATE
Synonyms	Nitrate of Soda / Chile Saltpeter

Section 2 Hazards Identification

Signal word: WARNING  
Pictograms: GHS03 / GHS07  
Target organs: Red blood cells



GHS Classification:  
Oxidizing solid (Category 3)  
Acute toxicity, oral (Category 4)  
Eye irritation (Category 2A)

GHS Label information: Hazard statement:  
H272: May intensify fire; oxidizer.  
H302: Harmful if swallowed.  
H319: Causes serious eye irritation.

Precautionary statement:

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P220: Keep away from clothing/incompatible/combustible materials.  
P221: Take any precaution to avoid mixing with combustibles/acids/oxidizers.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313: If eye irritation persists: Get medical attention.  
P370+P378: In case of fire: Use water to extinguish.  
P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%	EINECS
Sodium nitrate	7631-99-4	100%	231-554-3

Section 4 First Aid Measures

**INGESTION:** MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

**INHALATION:** MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**EYE CONTACT:** CAUSES SERIOUS EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

**SKIN ABSORPTION:** MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

**Suitable Extinguishing Media:** Use water. Do not use dry chemicals or foams. CO<sub>2</sub> or Halon<sup>®</sup> may provide limited control.

**Protective Actions for Fire-fighters:** In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

**Specific Hazards:** During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Although not flammable, substance is a strong oxidizer which releases oxygen on heating, increasing the burning rate of any material with a flare-burning effect. It may cause re-ignition after a fire is extinguished.

Section 6 Accidental Release Measures

**Personal Precautions:** Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

**Environmental Precautions:** Avoid runoff into storm sewers and ditches which lead to waterways.

**Containment and Cleanup:** Recover for reuse if not contaminated. Remove all sources of ignition. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

**Section 7 Handling & Storage**

**Precautions for Safe Handling:** Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale dusts. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

**Conditions for Safe Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from combustible or reducing agents.

**Section 8 Exposure Controls / Personal Protection**

Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
	Sodium nitrate	Not established	Not established	Not established

**Engineering controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

**Respiratory protection:** None should be needed in normal laboratory handling at room temperatures. If dusty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

**Section 9 Physical & Chemical Properties**

<b>Appearance:</b> Solid, colorless crystals. <b>Odor:</b> No odor. <b>Odor threshold:</b> Data not available. <b>pH:</b> Data not available. <b>Melting / Freezing point:</b> 307°C (584°F) <b>Boiling point:</b> Data not available <b>Flash point:</b> Non-flammable	<b>Evaporation rate ( = 1):</b> Data not available <b>Flammability (solid/gas):</b> Data not available. <b>Explosion limits: Lower / Upper:</b> Data not available <b>Vapor pressure (mm Hg):</b> Negligible <b>Vapor density (Air = 1):</b> Data not available <b>Relative density (Specific gravity):</b> 2.261 @ 25°C <b>Solubility(ies):</b> 73 g/100 mL water	<b>Partition coefficient:</b> Data not available <b>Auto-ignition temperature:</b> Data not available <b>Decomposition temperature:</b> 380°C (716°F) <b>Viscosity:</b> Data not available. <b>Molecular formula:</b> NaNO <sub>3</sub> <b>Molecular weight:</b> 84.99
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**Section 10 Stability & Reactivity**

**Chemical stability:** Stable  
**Hazardous polymerization:** Will not occur.  
**Conditions to avoid:** Excessive temperatures, heat, sparks, open flame and other sources of ignition. Keep away from combustible or reducing agents.  
**Incompatible materials:** Combustible materials, reducing agents, strong acids and flammable materials.  
**Hazardous decomposition products:** Nitrogen oxides.

**Section 11 Toxicological Information**

**Acute toxicity:** Oral-rat LD50: 1267 mg/kg  
**Skin corrosion/irritation:** Data not available  
**Serious eye damage/irritation:** Data not available  
**Respiratory or skin sensitization:** Data not available  
**Germ cell mutagenicity:** Data not available  
**Carcinogenicity:** Data not available  
**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.  
**Reproductive toxicity:** Data not available  
**STOT-single exposure:** Data not available  
**STOT-repeated exposure:** Data not available  
**Aspiration hazard:** Data not available  
**Potential health effects:**  
**Inhalation:** Cough and sore throat.  
**Ingestion:** Abdominal pain, cyanosis (blue lips, fingernails and skin), convulsions, diarrhea, dizziness, headache, labored breathing, confusion, nausea, unconsciousness.  
**Skin:** Redness.  
**Eyes:** Redness and pain.  
**Signs and symptoms of exposure:** Ingestion could cause effects on the blood. This may result in formation of methaemoglobin. The effect may be delayed. Exercise appropriate procedures to minimize potential hazards.  
**Additional information:** RTECS #: WC5600000

**Section 12 Ecological Information**

**Toxicity to fish:** Lepomis macrochirus (fish, fresh water), LC50 = 12,800 mg/L/24 hours  
**Toxicity to daphnia and other aquatic invertebrates:** Daphnia magna (Crustacea), LC50 = 6,000 mg/L/24 hours  
**Toxicity to algae:** No data available  
**Persistence and degradability:** No data available  
**Bioaccumulative potential:** No data available  
**Mobility in soil:** No data available  
**PBT and vPvB assessment:** No data available  
**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Section 13 Disposal Considerations**

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

**Section 14 Transport Information (US DOT / CANADA TDG)**

**UN/NA number:** UN1498  
**Shipping name:** Sodium nitrate  
**Hazard class:** 5.1  
**Packing group:** III  
**Reportable Quantity:** No  
**2012 ERG Guide #** 140  
**Marine pollutant:** No  
**Exceptions:** Limited quantity equal to or less than 5 Kg

**Section 15 Regulatory Information**

A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	WHMIS Classification
Sodium nitrate	Listed	Not listed	D001	Listed	Not listed	C; D2B

**Section 16 Additional Information**

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.