



**PhytoTechnology
Laboratories®**

SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Sodium Nitrate, ACS Reagent
PRODUCT NUMBER: S802
COMPANY INFO: *PhytoTechnology Laboratories®*
PO Box 12205, Shawnee, KS 66282-2205
Phone: 1-888-749-8682 or 1-913-341-5343; Fax: 1-888-449-8682 or 1-913-341-5442
www.phytotechlab.com
EMERGENCY PHONE NUMBER: 1-800-535-5053 - US Only
1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by *PhytoTechnology Laboratories®* are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

H272 – Oxidizing solids (Category 3)

H319 – Eye irritation (category 2)

GHS Label elements, including hazard and precautionary statements:

Pictogram:



Signal Word: **Warning**

Hazard Statements:

H272 – May intensify fire; oxidizer.

H319 – Causes serious eye irritation.

Precautionary Statements:

P210 – Keep away from heat.

P221 – Take any precaution to avoid mixing with combustibles.

P280 – Wear protective clothing/protective gloves/eye protection.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Not available

CAS No: 7631-99-4

Formula: NaNO_3

Molecular Weight: 84.99

EC No.: 231-554-3

Ingredient	CAS Number	Percent	Hazardous
Sodium Nitrate	7631-99-7	>99 %	No exposure limits established by OSHA or ACGIH

4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.

Special Protective Equipment and Precaution for Firefighters: In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.

Hazardous Combustion Products: May emit toxic fumes under fire conditions. Risk of fire on contact with reducing agents

Toxic Gases Produced: Sodium oxides

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Method of Containment and Cleanup: Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let products enter drains.

7. HANDLING AND STORAGE

Precaution for Safe Handling: Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Keep away from combustible materials. Keep away from heat and sources of ignition. Wash thoroughly after use.

Conditions for Safe Storage: Keep in a tightly closed container and store in a cool, dry, and well-ventilated area. Protect from moisture. This material is hygroscopic.

Recommended Storage Temperature: Room Temperature

Incompatibilities: Reducing agents, combustibles, antimony, barium rhodanide, boron phosphide, cyanides, sodium hypophosphite, sulfur and charcoal mixtures, strong acids, organic materials, powdered metals

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): No data available

Threshold Limit Values (TLVs): No data available

Engineering Controls: Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection: Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.

Skin Protection: Protective gloves

Body Protection: Lab coat

Respiratory Protection: Wear appropriate dust mask
A NIOSH/MSHA approved air purifying respirator is recommended where airborne concentrations are expected to exceed exposure limits. Protection provided by purifying respirators is limited.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White to off-white powder

pH (0.15 g/L): Under Development (5.5 – 8.5 suspected range)

Solubility: Soluble in Water

Melting Range: 306-308 °C

Vapor Density: No data available

Vapor Pressure: No data available

Odor: Odorless

Odor Threshold: No data available

Viscosity: No data available

Relative Density: 2.261 g/cm³

Evaporation Rate: No data available

Initial Boiling Point and Boiling Range: 380 °C (716 °F)

Flammability (solid, gas): No data available

Partition coefficient:
n-octanol/water): Log Pow: -3.8 at 25 °C (77 °F)

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Flash Point (Closed Cup): No data available

Flammable Limits: Upper (%) – No data available Lower (%) – No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use – is an oxidizer, material is slightly hygroscopic

Possibility of Hazard Reactions: Will not occur

Conditions to Avoid: Heat, shock, flame, dust generation, incompatibles, moisture

Incompatibles Materials: Reducing agents, combustibles, antimony, barium rhodanide, boron phosphide, cyanides, sodium hypophosphite, sulfur and charcoal mixtures, strong acids, organic materials, powdered metals

Hazardous Decomposition Products: Nitrogen oxides, sodium oxides

11. TOXICOLOGICAL INFORMATION

Toxicity:	LD ₅₀ (Oral-Rat)(mg/Kg):	3430
	LD ₅₀ (IV-Mouse)(mg/Kg):	175
	LD ₅₀ (Dermal-Mouse)(mg/Kg):	>5000
Carcinogenicity:	NTP:	No
	IARC:	No
	Z List:	No
	OSHA Reg:	No
Reproductive Toxicity:	No data available	
Symptoms Associated with Overexposure:	Irritation, itching, gastrointestinal upset, nausea, vomiting, headache, possible mutagenic and reproductive effects, possible tumorigenic effects, blood effects, cyanosis, liver and kidney impairment, breathing difficulties, weight loss or gain	
Specific Target Organ Toxicity:	Single Exposure:	No data available
	Repeated Exposure:	No data available
Target Organs:	Liver, reproductive system, skin, blood, central nervous system	
Medical Conditions Aggravated By Exposure:	Pre-existing conditions	
Routes of Entry:	Ingestion, inhalation, skin and eye contact	
NIOSH/RTECS NO:	WC5600000	

The toxicological properties of this product have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Ecotoxicity:	LC50 – mosquito fish – 6,650 mg/L – 96 hrs. EC50 – water flea – 6,000 mg/L – 24 hrs.
Persistence and Degradability:	No data available
Bioaccumulative Potential:	No data available
Mobility in Soil:	No data available
Other Adverse Effects:	No data available

13. DISPOSAL CONSIDERATION

Disposal Procedure:	Dispose in accordance with all applicable federal, state, and local environmental regulations.
EPA Hazardous Waste Number:	No data available

14. TRANSPORT INFORMATION

Domestic (D.O.T.):	Proper Shipping Name:	SODIUM NITRATE		
	Hazard Class:	5.1	Packing Group:	III
	UN:	1498		
	Poison inhalation hazard:	No		
International:				
IMDG:	Proper Shipping Name:	SODIUM NITRATE		
	Hazard Class:	5.1	Packing Group:	III EMS No.: F-A, S-Q
	UN:	1498		

IATA: Proper Shipping Name: SODIUM NITRATE
 Hazard Class: 5.1 Packing Group: III
 UN/NA: UN# 1498

15. REGULATORY INFORMATION

TSCA: Yes

SARA TITLE III:

Section 302 (EHS) Ingredients: No
 Section 313 Ingredients: Yes - CAS No.: 7631-99-4 Sodium nitrate
 Section 304 (EHS/CERCLA) Ingredients: No
 Section 311/312 Hazard: Reactivity Hazard
 Massachusetts Right to Know Components: CAS No.: 7631-99-4 Sodium nitrate
 Pennsylvania Right to Know Components: CAS No.: 7631-99-4 Sodium nitrate
 New Jersey Right to Know Components: CAS No.: 7631-99-4 Sodium nitrate
 California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating:	Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard
	1		0	1
NFPA Rating:	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
	1	0	1	OX

*Chronic Hazard: Chronic (long-term) health effects may result from repeated overexposure.

16. OTHER INFORMATION

***PhytoTechnology Laboratories®* provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. The above information is intended to be used only as a guide to the appropriate precautionary handling of this material by a properly trained person. *PhytoTechnology Laboratories®* shall not be held liable for any damage resulting from handling or from contact with the above product. This product is intended for LABORATORY USE ONLY. Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticidal products, food additives or as household chemicals.**

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