



**PhytoTechnology
Laboratories®**

SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Potassium Nitrate, ACS Reagent
PRODUCT NUMBER: P100
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:

- H272 – Oxidizing solids (Category 3)
- H402 – Acute aquatic toxicity (Category 3)
- H412 – Chronic aquatic toxicity (Category 3)

GHS Label elements, including hazard and precautionary statements:

Pictogram:



Signal Word: **Warning**

Hazard Statements:

- H272 – May intensify fire; oxidizer.
- H412 – Harmful to aquatic life with long lasting effects.

Precautionary Statements:

- P210 – Keep away from heat.
- P221 – Take any precaution to avoid mixing with combustibles.
- P273 – Avoid release to the environment.
- P280 – Wear protective gloves/protective clothing/eye protection/face protection.
- P370 + P378 – In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Saltpeter; Niter; Nitric Acid, potassium salt
CAS No: 7757-79-1
Formula: KNO_3
Molecular Weight: 101.10

Ingredient	CAS Number	Percent	Hazardous
Potassium Nitrate	7757-79-1	>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:	Nitrogen oxides (NOx), potassium 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. Product is hygroscopic.
Recommended Storage Temperature:	Room Temperature
Incompatibilities:	Strong oxidizing agent

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:	Appropriate respirator

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to off-white powder or crystals	
pH (1.90 g/L):	5.0 – 6.0	
Solubility:	Soluble in Water	
Melting Range:	333-334 °C	
Vapor Density:	No data available	
Vapor Pressure:	No data available	
Specific Gravity:	2.11	
Odor:	Mostly odorless	
Odor Threshold:	No data available	
Viscosity:	No data available	
Relative Density:	2.109 g/cm ³	
Evaporation Rate:	No data available	
Initial Boiling Point and Boiling Range:	No data available	
Flammability (solid, gas):	No data available	
Partition coefficient: n-octanol/water):	No data available	
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	
Possibility of Hazard Reactions:	Will not occur	
Conditions to Avoid:	Heat, shock, flame, dust generation, moisture, incompatibles	
Incompatibles Materials:	Reducing agents, combustibles, finely powdered metals, phosphates, organic materials, strong acids	
Hazardous Decomposition Products:	Nitrogen oxides, potassium oxides	

11. TOXICOLOGICAL INFORMATION

Toxicity:	LD ₅₀ (Oral-Rat)(mg/Kg):	3750
	LD ₅₀ (Oral-Rabbit)(mg/Kg):	1901
	LD ₅₀ (Oral-Mouse)(mg/Kg):	No data available

Carcinogenicity:	NTP:	No
	IARC:	Group 2
	Z List:	No
	OSHA Reg:	No
Reproductive Toxicity:	No data available	
Symptoms Associated with Overexposure:	Irritation, itching, gastrointestinal upset, abdominal pain, cough, blue lips or fingernails, nausea, convulsions, dizziness	
Specific Target Organ Toxicity:	Single Exposure:	No data available
	Repeated Exposure:	No data available
Target Organs:	Liver	
Medical Conditions Aggravated By Exposure:	None identified	
Routes of Entry:	Inhalation and ingestion	
NIOSH/RTECS NO:	TT3700000	

The toxicological properties of this product have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Ecotoxicity:	LC50 – mosquito fish – 22.5 mg/L – 96 hrs. EC50 – water flea – 226 mg/L – 75 hrs.
Persistence and Degradability:	No data available
Bioaccumulative Potential:	No data available
Mobility in Soil:	No data available
Other Adverse Effects:	Harmful to aquatic life.

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:	Potassium Nitrate	
	Hazard Class:	5.1	Packing Group: III
	UN:	1486	
	Marine pollutant:	No	
	Poison inhalation hazard:	No	

International:

IMDG:	Proper Shipping Name:	Potassium Nitrate	
	Hazard Class:	5.1	Packing Group: III
	UN:	1486	
	Marine pollutant:	No	

IATA:	Proper Shipping Name:	Potassium Nitrate	
	Hazard Class:	5.1	Packing Group: III
	UN:	1486	

15. REGULATORY INFORMATION

TSCA: Yes

SARA TITLE III:

Section 302 (EHS) Ingredients: No
 Section 313 Ingredients: Yes – Potassium nitrate
 Section 304 (EHS/CERCLA) Ingredients: No
 Section 311/312 Hazard: Reactivity Hazard, Chronic Health Hazard
 Massachusetts Right to Know Components: CAS No.: 7757-79-1
 Potassium nitrate
 Pennsylvania Right to Know Components: CAS No.: 7757-79-1
 Potassium nitrate
 New Jersey Right to Know Components: CAS No.: 7757-79-1
 Potassium 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
	0	0	1	OX

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

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