



SAFETY DATA SHEET

According to 29 CFR 1910.1200

POTASSIUM NITRATE

Date of issue: July 01, 2012 Revision date: September 01, 2023 Version: 4

SECTION 1.- IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product form Mixture of Potassium Nitrate and Potassium Sulfate for Agriculture
Substance name Nitrogen Potassium and Sulfur Compound Fertilizer
CAS No. 7757 79-1, 7778-80-5
Formula $\text{KNO}_3 + \text{K}_2\text{SO}_4$
Synonyms Potassium Nitrate and Potassium sulfate Fertilizer

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

Use of the substance/mixture Fertilizers

1.3 Details of the supplier of the safety data sheet

Pima Chemicals & Fertilizers, LLC
1370 Nogales, Az.
Tel. 011 52 (662) 182-0559
rgutierrez@qpima.com
www.qpima.com

Química Pima, S.A. de C.V.
Del Cobre 20, Parque Industrial Hermosillo.
Hermosillo, Sonora, México. C.P. 83297
Tel. 011 (662) 251-0010 ventas@qpima.com

1.4 Emergency telephone number

Emergency number CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

SECTION 2.- HAZARD IDENTIFICATION

2.1. GHS-US classification

Oxidizing solids 3 H272
Skin corrosion/irritation 2 H315
Eye damage/irritation 2B H320
Specific target organ toxicity (single exposure) 3 H335

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US):

Warning

Hazard statement (GHS-US):

H272 May intensify fire; oxidizer.
H315 Causes skin irritation.
H320 Causes eye irritation.
H335 May cause respiratory irritation.



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Precautionary statements (GHS-US):

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P220 Keep/Store away from clothing, and combustible materials. P221 Take any precautions to avoid mixing with combustibles. P261 Avoid breathing dust.
 P264 Wash exposed skin thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present, and easy to do. Continue rinsing.
 P312 Call a POISON CENTER/doctor/physician if you feel unwell.
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

None to our knowledge.

2.4 Unknown acute toxicity (GHS-US)

Not applicable.

SECTION 3.- COMPOSICION / INFORMATION OF INGREDIENTS

3.1 Substance Not applicable

3.2 Mixture

Name	Product identifier	%	GHS-US classification
Potassium Nitrate	(CAS No.) 7757-79-1	>85	Ox. Sol. 3; H272 Skin Irrit. 3, H316 Eye Irrit. 2B, H320 STOT-SE 3; H335
Potassium Sulfate	(CAS No.) 7778-80-5	<15	Eye irritation 2A, H319

SECTION 4.- FIRST AID MEASURE

4.1. Description of first aid measure

First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.
First-aid measures after eye contact	Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
First-aid measures after skin contact	Thoroughly wash the exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
First-aid measures after inhalation	Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Get medical attention.
First-aid measures after ingestion	If Potassium Nitrate is swallowed, if conscious, give plenty of water. Immediately call a physician. Never give anything by mouth to an unconscious person.



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4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	Irritation of the respiratory tract. Pain / dry throat. Cough.
Symptoms/injuries after skin contact	Irritation of the skin. Redness. Pain.
Symptoms/injuries after eye contact	Redness of the eye tissue. Irritation of the eye tissue. Pain. Tearing,
Symptoms/injuries after ingestion	Abdominal pain, diarrhea, nausea, vomiting. After absorption of large quantities: blood in the stool. Methemoglobinemia. They may appear last time: change blue/gray skin color. Dizziness. Feeling weak. Heart rhythm disturbances. Headache. Disorders of consciousness.
Chronic symptoms	ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation. Respiratory difficulties.

4.3. Indications of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5.- FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	Adapt extinguishing media to the environment.
Unsuitable extinguishing media	No unsuitable extinguishing media is known.

5.2. Special hazard arising from the substance or mixture

Fire hazard	DIRECT FIRE HAZARD. Non-combustible. INDIRECT FIRE HAZARD. Promotes combustion. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	DIRECT EXPLOSION HAZARD. No data is available on direct explosion hazards. INDIRECT EXPLOSION HAZARD. No data is available on indirect explosion hazards.
Reactivity	Decomposes on exposure to temperature rise: release of oxygen. On burning: release of toxic and corrosive gases/vapors (nitrous vapors). Violent to explosive reaction with many compounds e.g.: with organic material, with combustible materials, with (some) metals and their compounds, and with (strong) reducers. Reacts with (some) acids: release of toxic and corrosive gases/vapors (nitrous vapors).

5.3. Advice for firefighters

Precautionary measures fire	Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows.
Firefighting instructions	Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray.
Protection during firefighting	Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6.- ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment, and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit.
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Emergency procedures

Mark the danger area. Prevent dust cloud formation, e.g., by wetting. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.

Measures in case of dust release

In case of dust production: keep upwind. Dust production: have neighborhood close doors and windows.

6.1.2. For emergency responders

Protective equipment

Do not attempt to take action without suitable protective equipment. For further information refers to section 8 Exposure controls/personal protection"

Emergency procedures

Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Do not allow product to spread into the environment. Do not discharge into drains or rivers

6.3. Methods and material for containment and cleaning up.

Method for containment

Contain released substance, and pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, and cut off the supply. Knock down/dilute the dust cloud with water spray. If reacting: dilute toxic gas/vapor with water spray. Take account of toxic/corrosive precipitation water.

Methods for cleaning up

Prevent dispersion by covering it with dry sand/earth. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Spill must not return to its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

Other information

Dispose of materials or solid residues at an authorized site.

6.4 Reference to other sections

For further information refer to section 8: Exposure-controls/personal protection.

SECTION 7.- HANDLING AND STORAGE

7.1. Precautions for safe handling

Precautions for safe handling

Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures

Do not drink, eat, or smoke in the workplace. Always wash your hands after handling the product.
Do not eat, drink, or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

Keep only in the original container in a cool, well-ventilated place away from incompatible materials. Keep the container closed when not in use.

Incompatible products

KEEP SUBSTANCE AWAY FROM: combustible materials. Reducing agents. (Strong) acids. metals. Organic materials.

Heat-ignition

KEEP SUBSTANCE AWAY FROM: heat sources.

Storage area

Store in a dry area. Store at room temperature. Keep the container in a well-ventilated place. Meet the legal requirements.

Special rules on packaging

SPECIAL REQUIREMENTS: closing. Dry. Correctly labeled. Meet the legal requirements. Secure fragile packaging in solid containers.

Packaging materials

SUITABLE MATERIAL: Synthetic material. Glass. MATERIAL TO AVOID: Aluminum.



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7.3 Specific end use(s) No additional information available.

SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Potassium Nitrate 7757-79-1	Not available	Not available	Not available
Potassium Sulfate 7778-80-5	Not available	Not available	Not available

8.2. Exposure controls

Appropriate engineering controls	Ensure good ventilation of the workstation. Extraction to remove dust at its source. Emergency eye wash fountains and safety showers should be available near any potential exposure.
Personal protective equipment	Dust production: dust mask with filter type P2. Gloves. Safety glasses.
Material for protective clothing	GIVE GOOD RESISTANCE: butyl rubber. Neoprene. Rubber. GIVE POOR RESISTANCE: natural fibers.
Hand protection	Gloves.
Eye protection	Safety glasses. In case of dust production: protective goggles.
Skin and body protection	Protective clothing.
Respiratory protection	Dust production: dust mask with filter type P2.
Environmental exposure controls	Avoid release to the environment.

SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Solid.	Appearance:	Crystalline solid. Crystalline powder.
Odor:	Odorless.	Color:	Colorless to white.
Molecular mass			No data available.
Odor threshold			No data available.
pH			6 - 8
pH solution			5%
Relative evaporation rate (butyl acetate=1)			No data available.
Melting point			334°C
Freezing point			No data available.
Boiling point			Not applicable.
Flash point			Not applicable.
Self-ignition temperature			Not applicable.
Decomposition temperature			400°C
Flammability (solid, gas)			No data available.
Vapor pressure			No data available.



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Relative vapor density at 20°C	3
Relative density	2.1
Density/specific gravity	2100 kg/m ³
Solubility	Soluble in water. Soluble in glycerol. Water: 32 g/100 ml. Ethanol: 0.16 g/100 ml.
Log Pow	Not applicable (inorganic substance).
Log Kow	No data available.
Viscosity, kinematic	No data available.
Viscosity, dynamic	No data available.
Explosive properties	No data available.
Oxidizing properties	May intensify fire; oxidizer.
Explosive limits	No data available.

9.2 Other information

No additional information available.

SECTION 10.- STABILITY AND REACTIVITY

10.1 Reactivity	Decomposes on exposure to temperature rise: release of oxygen. On burning: release of toxic and corrosive gases/vapors (nitrous vapors). Violent to explosive reaction with many compounds e.g.: with organic material, with combustible materials, with (some) metals and their compounds, and with (strong) reducers. Reacts with (some) acids: release of toxic and corrosive gases/vapors (nitrous vapors).
10.2 Chemical stability	Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions	None under normal conditions of use.
10.4 Conditions to avoid	Direct sunlight. Heat. Incompatible materials. Open flame. Sparks.
10.5 Incompatible materials	Combustible materials. Strong reducing agents.
10.6 Hazardous decomposition products	Nitrogen oxides. Oxygen.

SECTION 11.- TOXICOLOGICAL INFORMATION

11. 1. Information on toxicological effects

Likely routes of exposure	Skin and eye contact; inhalation; and ingestion.
Acute toxicity	Not classified.

Name	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀ inhalation
Potassium Nitrate	3750 mg/kg (rat)	-	-
Potassium Sulfate	5400 mg/kg (rat)	-	-

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	Not classified.



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Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Specific target toxicity (single exposure)	May cause respiratory irritation.
Specific target toxicity (repeat exposure)	Not classified.
Aspiration hazard	Not classified.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecology - General	Classification concerning the environment: not applicable.
Ecology - Air	Not classified as dangerous for the ozone layer.
Ecology - Water	Mild water pollutant (surface water). Groundwater pollutant. Maximum concentration in drinking water: 50 mg/l (nitrate). Not harmful to fishes (LC ₅₀ (96h) >1000 mg/l). Slightly harmful to invertebrates (<i>Daphnia</i>) (EC ₅₀ (48h): 100 - 1000 mg/l). May cause eutrophication. Slightly harmful to plankton (EC ₅₀ : 100 - 1000 mg/l). Insufficient data available on ecotoxicity.

LC ₅₀ fishes 1	162 mg/l (96 h; Pisces; Lethal)
LC ₅₀ other aquatic organisms 1	39 mg/l (96 h; <i>Daphnia magna</i>)
EC ₅₀ other aquatic organisms 1	200 - 1000 mg/l (Plankton; Nocivity test)
LC ₅₀ fish 2	1378 mg/l (<i>Poecilia reticulata</i>)
LC ₅₀ other aquatic organisms 2	490 mg/l (48 h; <i>Daphnia magna</i>)
TLM fish 1	3000 mg/l (96 h; <i>Lepomis macrochirus</i>)
TLM fish 2	162 mg/l (96 h; <i>Gambusia affinis</i>)
Threshold limit other aquatic organisms 1	39 mg/l (96 h; <i>Daphnia magna</i>)
Threshold limit other aquatic organisms 2	490 mg/l (48 h; <i>Daphnia magna</i>)

12.2 Persistence and degradability

No additional information available.

12.3 Bioaccumulative potential

No additional information available.

12.4 Mobility in soil

No additional information available.

12.5 Other adverse effects

Other information No known ecological damage caused by this product.

SECTION 13.- DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste treatment methods	Dispose of in accordance with relevant local regulations.
Waste disposal recommendations	Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be



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mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport, or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Precipitate/make insoluble. Remove to an authorized dump (Class I). Do not discharge into surface water.
Can be considered as non-hazardous waste.

Additional information

SECTION 14.- TRANSPORT INFORMATION

14.1. UN number	Not applicable. In accordance with DOT not regulated as a blend of potassium nitrate and potassium sulfate
14.2.	
14.3. UN proper shipping name	Not applicable.
14.4. Additional information	
Other information	No supplementary information available.
Overland transport	No additional information available.
Transport by sea	No additional information available.
Air transport	No additional information available.

SECTION 15.- REGULATORY INFORMATION

15.1 US Federal regulations

Potassium Nitrate (7757-79-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 313 - Emission Reporting	1 % Nitrate compounds (water dissociable)
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15.2 International regulations

CANADA

Potassium Nitrate (7757-79-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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EU-Regulations

Potassium Nitrate (7757-79-1)

No additional information available.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Ox. Sol. 3 H272

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

O; R8

15.2.2. National regulations

Potassium sulfate (7778-80-5)

Not listed on the Canadian Ingredient Disclosure List.



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15.3 US State regulations

No additional information available.

SECTION 16.- OTHER INFORMATION

NFPA	NFPA health hazard	1	NFPA fire hazard	0	NFPA instability hazard	0	NFPA Special hazard	-
HMIS III	Health	1	Flammability	0	Physical	1	Personal Protection	F

F Safety glasses, gloves, protective apron, and dust respirator.



Other information: None.

Made for: Quimica Pima, S.A. de C.V. Del Cobre No. 20 Parque Industrial. Hermosillo, Sonora, México. 83297.

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September 01, 23. Version 4. Syntax and spelling improvements and corrections were made.

IMPORTANT NOTE: Information in this SDS is from available published sources and is believed to be accurate, but is not exhaustive and will be used only as a guide, which is based on current knowledge of the chemical substance or mixture and applied to the appropriate product for safety precautions. No warranty, express or implied, is made and Pima Chemicals & Fertilizers, LLC and Quimica Pima, S.A. de C.V. assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

End of Safety Data Sheet