



SAFETY DATA SHEET
According to 29 CFR 1910.1200

**MONOPOTASSIUM PHOSPHATE
MKP**

Date of issue: July 01, 2009 Revision date: October 05, 2016 Version: 3

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

1.1 Product identifier

Product form Substance.
Substance name Monopotassium phosphate (MKP)
CAS No. 7778-77-0
Formula KH_2PO_4
Synonyms Phosphoric acid monopotassium salt; potassium dihydrogen phosphate.

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

Use of the substance/mixture Fertilizers, agricultural product.

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@quimicapima.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@quimicapima.com
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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

Skin Irrit. 3 H316
Eye Irrit. 2B H320

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) No pictogram

Signal word (GHS-US): Warning

Hazard statement (GHS-US):
H316 Causes mild skin irritation.
H320 Causes eye irritation.

Precautionary statements (GHS-US):
P261 Avoid breathing dust.
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash exposed skin thoroughly after handling.
P302+P352 If on skin: Wash with plenty of 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.
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P402+P404 Store in a dry place. Store in a closed container.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.



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- 2.3. Other hazards No additional information available.
2.4 Unknown acute toxicity (GHS-US) Not applicable.

SECTION 3.- COMPOSICION / INFORMATION OF INGREDIENTS

3.1 Substance

Substance type Mono-constituent.

Name	Product identifier	%	GHS-US classification
Monopotassium phosphate as P ₂ O ₅	(CAS No.) 7778-77-0	52.0	Skin Irrit. 3, H316 Eye Irrit. 2B, H320

Full text of H-phrases: see sector 16.

3.2 Mixture Not applicable

SECTION 4.- FIRST AID MEASURE

4.1. Description of first air measure

- First-aid measures general** If medical advice is needed, have product container or label at hand.
- First-aid measures after eye contact** Immediately rinse with water for a prolonged period while holding the eyelids wide open. Obtain medical attention if irritation develops or persists.
- First-aid measures after skin contact** Wash skin thoroughly with mild soap and water. Obtain medical attention if irritation develops or persists.
- First-aid measures after inhalation** If inhaled, remove from source of exposure to dusts to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if necessary. Obtain medical attention if breathing difficulty persists. Persons who have inhaled decomposition gases (e.g. in a fire) should obtain immediate medical attention.
- First-aid measures after ingestion** Do not induce vomiting. Seek medical attention if a large amount is swallowed. Get medical advice and attention if you feel unwell (or if a large amount of MAP is ingested [small children, more than 50 g]) Drink large amounts of water (or milk if available) to dilute stomach contents. Ingestion of small quantities is unlikely to cause toxic effect.

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

- Symptoms/injuries after inhalation** May cause respiratory tract irritation.
- Symptoms/injuries after skin contact** May cause skin irritation.
- Symptoms/injuries after eye contact** May cause eye irritation.
- Symptoms/injuries after ingestion** If a large quantity has been ingested: Abdominal pain. Diarrhea. Nausea. Vomiting.

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

Notes to physician: No specific antidote, contact Poisons Information Center. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5.- FIREFIGHTING MEASURES



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5.1. Extinguishing media

Suitable extinguishing media Chemical type foam, Carbon Dioxide (CO₂), dry chemical, water fog.

Unsuitable extinguishing media Do not use a heavy water stream.

5.2. Special hazard arising from the substance or mixture

Fire hazard MKP is a non-flammable inorganic salt and is not flammable; however, if involved in a fire toxic and/or corrosive fumes may be produced by thermal decomposition.

Explosion hazard Product is not explosive.

Reactivity Stable at ambient temperature and under normal conditions of use.

5.3. Advice for firefighters

Firefighting instructions Keep personnel removed from and upwind of fire. When strongly heated, MKP will decompose giving off toxic and/or corrosive fumes.

Protective during firefighting Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Other information Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6.- ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment Wear suitable protective clothing, gloves and eye/face protection. Wear tight fitting goggles in dusty areas to reduce dust exposure to the eyes.
If skin irritation occurs, wear long sleeves.

Emergency procedures Collect as any solid. Ventilate area.

6.1.2. For emergency responders

Protective equipment Wear suitable protective clothing, gloves and eye/face protection.

Emergency procedures If possible, stop flow of product. Contain and collect as any solid. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up.

Method for containment If contaminated with other materials, contain and collect as any solid in suitable containers. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Prevent large quantities from contacting vegetation.

Methods for cleaning up Recover the product by vacuuming, shoveling or sweeping and place in appropriate container to be disposed at an appropriate disposal facility according to current applicable laws and regulations and product characteristics at the time of disposal. Provide adequate ventilation. Avoid generation of dust during clean-up of spills. If uncontaminated, recover and reuse product. Practice good housekeeping – spillage can be slippery on smooth surface either wet or dry.

6.4 Reference to other sections

No additional information available.

SECTION 7.- HANDLING AND STORAGE

7.1. Precautions for safe handling



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Precautions for safe handling When heated, material emits irritating fumes.
Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product.
Emergency eye wash fountains and a safety shower should be available in the immediate vicinity of any potential exposure.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Store tightly closed in a dry, cool and well-ventilated place.
Incompatible products Strong bases. Strong oxidizers.
Incompatible materials Moisture.

7.3 Specific end use(s) Agricultural chemical.

SECTION 8.- EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	ACGIH TWA	OSHA PEL	NIOSH IDLH
Monopotassium phosphate 7778-77-0	Not available.	Not available.	Not available.

8.2. Exposure controls

Personal protective equipment Gloves. Safety glasses. Protective clothing.
Hand protection Impermeable protective gloves.
Eye protection Safety glasses. Maintain eye wash fountain and quick-drench facilities in work area of monopotassium phosphate.
Skin and body protection Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Wear suitable protective clothing. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.
Respiratory protection For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Other information Ensure adequate ventilation, especially in confined areas.

SECTION 9.- PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Solid.	Appearance:	Granular solid.
Odor:	Odorless.	Color:	White.
Molecular mass			136.09 g/mol
Odor threshold			No data available.
pH			4.4 – 4.5
pH solution			5% at 20°C
Relative evaporation rate (butyl acetate=1)			No data available.



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Melting point	253°C (487°F)	
Freezing point	No data available.	
Boiling point	400°C (752°F)	Loses water and becomes metaphosphate
Flash point	Not flammable.	
Self ignition temperature	Not flammable.	
Decomposition temperature	> 250°C (482°F)	
Flammability (solid, gas)	Not flammable.	
Vapor pressure	No data available.	
Relative vapor density at 20°C	No data available.	
Relative density	No data available.	
Density	No data available.	
Solubility	Soluble in water. Water: 220 g/l (at 20°C)	
Log Pow	No data available.	
Log Kow	No data available.	
Viscosity, kinematic	No data available.	
Viscosity, dynamic	No data available.	
Explosive properties	Not explosive.	
Oxidizing properties	Not oxidizing.	
Explosive limits	No data available.	

9.2 Other information

No additional information available.

SECTION 10.- STABILITY AND REACTIVITY

10.1 Reactivity	Stable at ambient temperature and under normal conditions of use.
10.2 Chemical stability	Stable at standard temperature and pressure.
10.3 Possibility of hazardous reactions	Hazardous polymerization will not occur.
10.4 Conditions to avoid	Moisture. Avoid dust formation.
10.5 Incompatible materials	Strong oxidizers. Strong bases.
10.6 Hazardous decomposition products	Phosphorus oxides. Phosphine.

SECTION 11.- TOXICOLOGICAL INFORMATION

11. 1. Information on toxicological effects

Acute toxicity Not classified.

Name	LD ₅₀ oral	LD ₅₀ dermal	LC ₅₀ inhalation
Monopotassium phosphate	> 2000 mg/kg (rat)	4640 mg/kg (rabbit)	-

Skin corrosion/irritation Not classified.



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Serious eye damage/irritation	Not classified.
Respiratory or skin sensitization	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Specific target toxicity (single exposure)	Not classified.
Specific target toxicity (repeat exposure)	Not classified.
Aspiration hazard	Not classified.
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Monopotassium phosphate (7778-77-0)	
Not established.	No additional information available.

12.2 Persistence and degradability

Monopotassium phosphate (7778-77-0)	
Persistence and degradability	Not established.

12.3 Bioaccumulative potential

Monopotassium phosphate (7778-77-0)	
Bioaccumulative potential	Not established.

12.4 Mobility in soil No additional information available.

12.5 Other adverse effects

Other information Avoid release to the environment.

SECTION 13.- DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste disposal recommendations	Keep out of sewers and waterways. Place in an appropriate container and dispose of the contaminated material at a licensed site.
Ecology-waste materials	Dispose of waste material in accordance with all local, regional, national, and international regulations.

SECTION 14.- TRANSPORT INFORMATION

14.1.UN number No dangerous good in sense of transport regulations.

14.2. UN proper shipping name Not applicable.

14.3. Additional information

Other information	No supplementary information available.
Overland transport	No additional information available.
Transport by sea	No additional information available.



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Air transport

No additional information available.

SECTION 15.- REGULATORY INFORMATION

15.1 US Federal regulations

Monopotassium phosphate (7778-77-0)

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

15.2 International regulations

CANADA

Monopotassium phosphate (7778-77-0)

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

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

E U - Regulations

No additional information available.

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

Not classified.

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified.

15.2.2 National regulations

Monopotassium phosphate (7778-77-0)

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

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	0	Personal Protection	C

C Safety glasses, gloves and protective clothing.



Other information:

Eye Irrit. 2B: Serious eye damage/eye irritation Category 2B. Skin Irrit. 3: Skin corrosion/irritation Category 3. H316: Causes mild skin irritation. H320: Causes eye irritation.

Made for:

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

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Revision note:

In this latest revision is updated according to 29 CFR 1910.1200.

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 apply 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