

SAFETY DATA SHEET

Campbells MKP (Solu-MKP)



Date of Issue: July 2016

1. IDENTIFICATION

Product Identifier: Campbells MKP (Solu-MKP)

Other Means of Identification: Phosphoric acid, monopotassium salt; Mono potassium phosphate; Potassium dihydrogen orthophosphate

Recommended Use of the Chemical and Restrictions on Use: Fertiliser

Details of Manufacturer or Importer: Campbells Fertilisers Australasia
18 Raymond Road, Laverton North, Victoria, 3026
Phone: (03) 9931 2211
Fax: (03) 9931 2201
www.campbellsfert.com.au

Emergency Telephone Number: (03) 9931 2211 (business hours only 8.30 am to 5.00 pm)
0418 350 726 (after business hours)

2. HAZARD(S) IDENTIFICATION

GHS Classification: Not classified as hazardous according to the GHS

ADG Classification: Based on available information, not classified as a Dangerous Good under the Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition

SUSMP Classification: Exempt from Poison Scheduling

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component:	CAS Number:	Proportion (%w/w):
Potassium dihydrogenorthophosphate	7778-77-0	Not specified

4. FIRST AID MEASURES

Description of Necessary First Aid Measures:

Inhalation: Supply fresh air; consult doctor in case of complaints.

Skin Contact: Generally the product does not irritate the skin. Rinse with warm water. If skin irritation continues, consult a doctor.

Eye Contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Ingestion: Rinse out mouth and then drink plenty of water. If symptoms persist consult doctor. NOTE: Never give an unconscious person anything to

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First Aid Facilities: drink.
Ensure washing facilities, including an eyewash, are available and maintained.

Symptoms caused by Exposure: No data available

Medical Attention and Special Treatment:
None specified.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Equipment: The product is not flammable. Use fire extinguishing methods suitable to surrounding conditions.

Specific Hazards arising from the Chemical: In case of fire, the following can be released: phosphorus oxides (e.g. P_2O_5)

Special Protective Equipment and Precautions for Fire Fighters: Wear fully protective suit. Mouth respiratory protective device. Collect contaminated fire fighting water separately. It must not enter the sewage system.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Avoid formation of dust. Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective clothing.

Environmental Precautions: Do not allow to enter sewers/surface or ground water.

Methods and Materials for Containment and Cleaning Up: Pick up mechanically.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Ensure good ventilation/exhaustion at the workplace. Prevent formation of dust. The product is not flammable.

Conditions for Safe Storage, Store in dry conditions. Protect from heat and direct sunlight. Do not store together with alkalis (caustic solutions). Store away from oxidizing

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including any Incompatibilities: agents. Protect from humidity and water. Store in a cool place.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

DNELs

For workers:
Long-term-systemic effects (inhalation) DNEL: 4.07 mg/m³
For general population:
Long-term-systemic effects (inhalation) DNEL: 3.04 mg/m³

PNECs

PNEC aqua (freshwater): 0.05 mg/L
PNEC aqua (marine water): 0.005 mg/L
PNEC aqua (intermittent releases): 0.5 mg/L
PNEC STP: 50 mg/L

Ventilation must be sufficient to maintain TLV-TWA below 3 mg/m³, respirable particles, and 10 mg/m³, inhalable particles [ACGIH recommendation for Particles (Insoluble or poorly soluble) Not Otherwise Specified (PNOS)]

Biological Monitoring:

Not specified

Control Banding:

Not specified

Engineering Controls:

Ventilation must be sufficient to maintain TLV-TWA below 3 mg/m³, respirable particles, and 10 mg/m³, inhalable particles [ACGIH recommendation for Particles (Insoluble or poorly soluble) Not Otherwise Specified (PNOS)]

Individual Protection Measures e.g. Personal Protective Equipment (PPE):

The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not eat or drink while working.

Respiratory Protection:

Use suitable respiratory protective device in case of insufficient ventilation. Filter P2.

Skin Protection:

Wear protective work clothing. Use protective gloves. The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye and Face Protection:

Safety glasses

Thermal Hazards:

None specified

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White crystalline
Odour:	Odourless
Vapour Pressure (at 25°C):	4.5 x 10 ⁻¹⁵ kPa
Bulk Density (at 20°C):	1150-1200 kg/m ³
Density (at 20°C):	2.34 g/cm ³
Boiling Point:	>450°C
Melting Point:	252.6°C
Solubility (in water at 20°C):	208 g/L
pH (10 g/L at 20°C):	4.2-4.5
Flash Point:	Not applicable (inorganic substance)
Flammability Limits:	Product is not flammable (based on molecular structure)
Auto-Ignition Temperature:	Product is not selfigniting (based on molecular structure)
Octanol/Water Partition Coefficient:	Not applicable (inorganic substance)

10. STABILITY AND REACTIVITY

Reactivity:	Reacts with alkali (lyes).
Chemical Stability:	No decomposition if used and stored according to specifications.
Possibility of Hazardous Reactions:	Reacts with oxidizing agents.
Conditions to Avoid:	Water (product is hygroscopic). To avoid thermal decomposition, do not overheat.
Incompatible Materials:	Alkalis, oxidizing agents
Hazardous Decomposition Products:	Formation of toxic gases is possible during heating or in case of fire, phosphorus oxides (e.g. P ₂ O ₅)

11. TOXICOLOGICAL INFORMATION

Toxicological Information of the Mixture:

Acute Toxicity:	<u>Potassium pentahydrogen bis(phosphate):</u> Dermal LD50 >2000 mg/kg (rabbit, OECD 402) <u>Sodium dihydrogenorthophosphate:</u> Inhalative LC50 (4 h)>0.83 mg/L (rat, OECD 403), the maximum attainable concentration <u>Potassium dihydrogenorthophosphate:</u> Oral LD50 >2000 mg/kg (rat) Inhalative LC50 (4 h)>5.0 mg/L (rat, OECD 403, B.2, EPA)
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Skin	<u>Potassium dihydrogenorthophosphate:</u>
Corrosion/Irritation:	Irritation of skin, OECD 404, not irritating (rabbit)
Serious Eye	<u>Potassium dihydrogenorthophosphate:</u>
Damage/Irritation:	Irritation of eyes, OECD 405, EC B.5, not irritating (rabbit)
Respiratory or Skin	<u>Sodium dihydrogenorthophosphate:</u>
Sensitisation:	Sensitisation (OECD 429, EC B.42): none (mouse)
Germ Cell	None. Sodium and potassium phosphates are routinely used in the
Mutagenicity:	nutrient broths that support bacterial colonies in the laboratory and as such bacteria are constantly exposed to these inorganic phosphates. The constant exposure of bacteria to these materials suggests that they pose no inherent risk of genotoxicity.
Carcinogenicity:	No data available (no carcinogenicity study needs to be performed as this substance is not genotoxic)
Reproductive	No classification is necessary.
Toxicity:	<u>Dipotassium hydrogenorthophosphate:</u> OECD 422 developmental toxicity: NOAEL >1000 mg/kg bw/day; rat, oral <u>Potassium dihydrogenorthophosphate:</u> Developmental/maternal toxicity: NOAEL >282 mg/kg bw/day; rat, oral Developmental/maternal toxicity: NOAEL >320 mg/kg bw/day; mouse, oral
Specific Target Organ	No data available
Toxicity (STOT) -	
Single Exposure:	
Specific Target Organ	No data available
Toxicity (STOT) -	
Repeated Exposure:	
Aspiration Hazard:	No data available
Repeated Dose	No reliable study with this product is present.
Toxicity:	This study is conducted on an analogous substance (read-across); no classification is necessary. <u>Sodium aluminium phosphate:</u> Oral, NOAEL, >323 mg/kg bw/day (dog) (90 days, subchronic)
Other Information:	This product dissociates into potassium and phosphate ions, which are normal body and nutritional components. This substance is not considered to have bioaccumulative potential as it is highly soluble in water and phosphate levels in the body are regulated via homeostasis.
Likely Routes Of Exposure	
Inhalation:	No data available
Skin:	No data available
Eye:	No data available
Ingestion:	No data available

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12. ECOLOGICAL INFORMATION

Ecotoxicity:	<p>Inorganic phosphates are not considered to be toxic to aquatic species. No reliable study with this product is present. This study is conducted on an analogous substance. (read-across)</p> <p><u><i>Tripotassium trihydrogen diphosphate dihydrate</i></u> EC50 (48 h, static) >100 mg/L (<i>Daphnia magna</i>) (OECD 202, freshwater) EC50 (72 h, static) >100 mg/L (algae) (OECD 201, freshwater) LC50 (96 h) >100 mg/L (fish, <i>Oncorhynchus mykiss</i>) (OECD 203, freshwater, semi-static)</p>
Persistence and Degradability:	<p>The substance is inorganic; therefore no biodegradation tests are applicable.</p>
Bioaccumulative Potential:	<p>Does not accumulate in organisms. This substance is highly water soluble and dissociating. This product dissociates into potassium and phosphate ions, which are ubiquitous in the environment.</p>
Mobility in Soil:	<p>This substance is highly water soluble and dissociating. Low potential for adsorption (based on substance properties).</p>
Other Adverse Effects:	<p>Do not allow undiluted product or large quantities of it to reach ground water, water course, sewage system or waste water because it may act as a plant nutrient and cause eutrophication.</p> <p>Behaviour in sewage processing plants: <u><i>Dipotassium hydrogenorthophosphate</i></u>: EC50 (3 h) >1000 mg/L (activated sludge) (OECD 209); NOEC (3 h) 1000 mg/L</p> <p>No reliable study with this product is present. This study is conducted on an analogous substance (read-across). Inorganic phosphates are not considered to be toxic to sewage treatment plant microorganisms.</p>

13. DISPOSAL CONSIDERATIONS

Product Disposal:	<p>This product is used as fertiliser. However, large spills can kill vegetation. Prevent large quantities from entering waterways. If uncontaminated, sweep up or collect, and reuse as product. If contaminated with other materials, collect in suitable containers. Can be reused without reprocessing. Disposal must be made in accordance with Local Authority requirements.</p>
Container Disposal:	<p>Packaging may be reused or recycled after cleaning. May be cleaned with water, if necessary, together with cleansing agents. Disposal must be made in accordance with Local Authority requirements.</p>

14. TRANSPORT INFORMATION

Classification:	<p>Based on available information, not classified as Dangerous Goods for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition.</p>
UN Number:	<p>Not applicable</p>

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Proper Shipping Name or Technical Name:	Not applicable
Transport Hazard Class:	Not applicable
Packing Group:	Not applicable
Environmental Hazards for Transport Purposes:	Not applicable
Special Precautions for User:	Not applicable
HAZCHEM Code:	Not applicable

15. REGULATORY INFORMATION

SUSMP:	Exempt from Poison Scheduling
APVMA:	Exempt from registration
State Departments of Agriculture / Primary Industries:	Registration not required
Australian Inventory of Chemical Substances (AICS):	All components listed
Toxic Substance – NZ	Exempt

16. OTHER INFORMATION

Edition:	Initial edition
Revision Due:	April 2021
Reason for Revision:	Initial version
Preparation Information:	Prepared by Campbells Fertilisers Australasia
Data Sources:	Supplier SDS
Trademark Information:	
Glossary:	

APVMA	Australian Pesticides and Veterinary Medicines Authority
CAS	Chemical Abstract Services number, used to uniquely identify chemical compounds
PPE	Personal protective equipment
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons

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This SDS summarises our best knowledge of the health and safety hazard information available for this product and how to safely handle and use it. Since the use of this information and the conditions of the use of this product are not under the control of Campbell's Fertilisers, it is the user's responsibility to determine conditions of safe use of the product.

END OF SDS