

SAFETY DATA SHEET

Campbells Solu K



Date of Issue: August 2016

1. IDENTIFICATION

Product Identifier: Campbells Solu-K

Other Means of Identification: Potassium sulfate, soluble grade

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



Pictogram: Corrosion

Pictogram: Exclamation Mark

GHS Hazard Class and Category:

Skin Corrosion Category 1B: "Danger"

Hazard statement: H314: Causes severe skin burns and eye damage

Specific Target Organ Toxicity (Single Exposure) Category 3: "Warning"

Hazard statement: H335: May cause respiratory irritation

Precautionary Statements:

P260 Do not breathe dusts.

P261 Avoid breathing dust.

P264 Wash hands thoroughly after handling

P271 Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.

P363 Wash contaminated clothing before reuse.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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P310 Immediately call a POISON CENTER or doctor/physician.

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

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/ container in accordance with local/regional/ national/international Regulations.

ADG 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 Not scheduled

Classification:

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component:	CAS Number:	Concentration (%):
Potassium sulfate	7778-80-5	>85
Potassium hydrogensulphate	7646-93-7	10≤15

4. FIRST AID MEASURES

Description of Necessary First Aid Measures:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

Inhalation: Remove casualty to fresh air. If respiratory problems occur, seek medical advice.

Skin Contact: Flush skin with soap and water. Seek medical advice if irritation persists.

Eye Contact: Flush eyes immediately with plenty of water for 15 minutes. Remove any contact lenses if possible. Do not apply neutralizing agents. Seek advice from an ophthalmologist.

Ingestion: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Victim is fully conscious: immediately induce vomiting. Seek medical advice if you feel unwell.

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

Symptoms caused by Exposure:

Inhalation: After inhalation of dust: coughing.

Skin Contact: Not irritating.

Eye Contact: Corrosion of the eye tissue. Inflammation/damage of the eye tissue.

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Ingestion: After absorption of high quantities, symptoms may include gastrointestinal complaints, nausea, diarrhoea, irritation of the gastric/intestinal mucosa, decreased renal function, disturbances of heart rate.

Medical Attention and Special Treatment:
None specified.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Equipment: Use any means suitable for extinguishing surrounding fire.

Specific Hazards arising from the Chemical: On burning, release of toxic and corrosive gases/vapours (sulphur oxides).

Special Protective Equipment and Precautions for Fire Fighters: Dilute toxic gases with water spray. Wear gloves, safety glasses, protective clothing. Upon dust cloud production, wear compressed air/oxygen apparatus. Upon heat/fire exposure, wear compressed air/oxygen apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures: Prevent dust cloud formation, e.g. by wetting. No naked flames. Non-emergency personnel: wear appropriate personal protective equipment as specified in Section 8. Emergency responders: wear gloves, safety glasses, protective clothing as specified in Section 8. Upon dust cloud production, wear compressed air/oxygen apparatus.

Environmental Precautions: Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.

Methods and Materials for Containment and Cleaning Up: Stop dust cloud by humidifying. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed.

Conditions for Safe Storage, including any Incompatibilities: Store in a dry area. Store at room temperature. Keep container in a well-ventilated place. Meet the legal requirements. Keep away from heat sources. Suitable packaging material: polyethylene.

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Non suitable packaging material: aluminium, metal.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

Occupational Exposure Limit Values: UK

Inhalable dust	Time-weighted average exposure limit 8 h	4 mg/m ³	Workplace exposure limit (EH40/2005)
Respirable dust	Time-weighted average exposure limit 8 h	10 mg/m ³	Workplace exposure limit (EH40/2005)

DNEL - Workers

potassium sulfate

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects dermal	21.3 mg/kg bw/day
	Long-term systemic effects inhalation	37.6 mg/m ³

DNEL – General Population

potassium sulfate

Effect level (DNEL/DMEL)	Type	Value
DNEL	Long-term systemic effects oral	12.8 mg/kg bw/day
	Long-term systemic effects dermal	12.8 mg/kg bw/day
	Long-term systemic effects inhalation	11.1 mg/m ³

PNEC

potassium sulfate

Compartments	Value
Fresh water	0.68 mg/L
Marine water	0.068 mg/L
Aqua (intermittent releases)	6.8 mg/L
STP	10 mg/L

Biological Monitoring:

Not available.

Control Banding:

Not available.

Engineering Controls:

Avoid raising dust. Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

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Individual Protection Measures e.g. Personal Protective Equipment (PPE):	Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke during work. <i>Eye and Face Protection:</i> Wear safety glasses. In case of dust production: protective goggles. <i>Skin Protection:</i> Wear rubber gloves and protective clothing. <i>Respiratory Protection:</i> Dust production: dust mask with filter type P1. <i>Thermal Hazards:</i> None specified.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colourless to white crystalline solid, powder
Odour:	Odourless
Vapour Pressure (mm Hg):	Not applicable
Relative Density:	Not available
Absolute Density:	1210 kg/m ³
Boiling Point:	1689°C
Melting Point:	1067°C
Solubility (water):	Soluble
Specific Gravity:	Not available
pH:	Not available
Flash Point:	Not applicable
Flammability:	Non flammable
Auto-Ignition Temperature:	Not applicable
Octanol/Water Partition Coefficient:	Not available
Particle Size:	135 µm

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions of storage and handling.
Possibility of Hazardous Reactions:	In molten state: reacts violently with (some) metals.
Conditions to Avoid:	Avoid raising dust. Keep away from naked flames/heat.
Incompatible Materials:	Aluminium, metal.
Hazardous Decomposition Products:	On burning: release of toxic and corrosive gases/vapours (sulphur oxides).

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11. TOXICOLOGICAL INFORMATION

Toxicological Information of the Mixture:

Acute Toxicity:

For Solu K

No data available

For potassium sulfate

LD₅₀ Rat (male, female) Oral >2000 mg/kg bw (OECD425, read-across value)

LD₅₀ Rat (male, female) Dermal >2000 mg/kg bw (OECD402, experimental value)

LC₅₀ Rat Inhalation (4 h) >1.2 mg/L (read-across value)

For potassium hydrogensulphate

LD₅₀ Rat Oral 2340 mg/kg

Skin

Corrosion/Irritation:

For Solu K

Skin - Not irritating (EU Method B.46, experimental value)

Serious Eye

Damage/Irritation:

For Solu K

Eye – Serious eye damage (OECD437, experimental value)

For potassium sulfate

Eye Rabbit - Not irritating (OECD405, experimental value, time point: 24, 48, 72 h)

Respiratory or Skin

Sensitisation:

For Solu K

No data available

For potassium sulfate

Dermal Mouse (female) - Not sensitizing (OECD 429, read-across value)

Germ Cell

Mutagenicity:

In vitro

For Solu K

No data available

For potassium sulfate

Negative (OECD 473, Chinese hamster ovary (CHO), experimental value)

Negative (OECD 476, Mouse (lymphoma L5178Y cells), read-across value)

Negative (OECD 471, Bacteria *S. typhimurium*, experimental value)

Negative (OECD 471, *Escherichia coli*, experimental value)

In vivo

For Solu K

No data available

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Carcinogenicity:	<p><i>For Solu K</i> No data available</p> <p><i>For potassium sulfate</i> Oral, rat (male/female) (104 wks) (method equivalent to OECD 453, read-across value). No adverse systemic effects.</p>
Reproductive Toxicity:	<p><i>For Solu K</i> No data available</p> <p><i>For potassium sulfate</i> <u>Developmental toxicity:</u> NOAEL rat (male, 28 d) ≥ 1500 mg/kg bw/day (OECD 422 method, experimental value). No adverse systemic effects. NOAEL rat (female, 53 d) ≥ 1500 mg/kg bw/day (OECD 422 method, experimental value). No adverse systemic effects. <u>Effects on fertility:</u> NOAEL rat (male/female, 28 d) ≥ 1500 mg/kg bw/day (OECD 422 method, experimental value). No adverse systemic effects.</p>
Specific Target Organ Toxicity (STOT) - Single Exposure:	No data available
Specific Target Organ Toxicity (STOT) - Repeated Exposure:	<p><i>For Solu K</i> No data available</p> <p><i>For potassium sulfate</i> Oral, NOAEL, rat (male/female) (28 d) ≥ 1500 mg/kg bw/day (OECD 422 method, experimental value). No adverse systemic reactions. Oral, NOAEL, rat (male) (52 wks) 256 mg/kg bw/day (OECD 453 method, read-across value). No adverse systemic reactions. Oral, NOAEL, rat (female) (52 wks) 284 mg/kg bw/day (OECD 453 method, read-across value). No adverse systemic reactions.</p> <p>Low sub-chronic toxicity by the oral route.</p>
Aspiration Hazard:	No data available
Likely Routes Of Exposure	
Inhalation:	After inhalation of dust: coughing.
Skin:	Not irritating.
Eye:	Corrosion of the eye tissue. Inflammation/damage of the eye tissue.
Ingestion:	After ingestion of high quantities, symptoms may include gastrointestinal complaints, nausea, diarrhoea, irritation of the gastric/intestinal mucosa, decreased renal function, disturbances of heart rate.

Delayed and Immediate Effects from Short and Long Term Exposure:
None known.

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12. ECOLOGICAL INFORMATION

Ecotoxicity:	<i>For Solu K</i> No data available <i>For potassium sulfate</i> <u>Acute toxicity to fish:</u> LC ₅₀ <i>Pimephales promelas</i> (96 h) 680 mg/L (static system, fresh water, EPA 600/4-90/027 method, experimental value) <u>Acute toxicity to invertebrates:</u> LC ₅₀ <i>Daphnia magna</i> (48 h) 720 mg/L (static system, fresh water, EPA 600/4-90/027 method, experimental value) <u>Toxicity to algae and other aquatic plants:</u> EC ₅₀ <i>Chlorella vulgaris</i> (18 d) 2700 mg/L (static system, fresh water, other method, read-across value) <u>Toxicity to aquatic microorganisms:</u> EC ₅₀ Activated sludge >100 mg/L (weight of evidence) NOEC Activated sludge 100 mg/L (weight of evidence) <i>For potassium hydrogensulphate</i> <u>Acute toxicity to fish:</u> LC ₅₀ <i>Leuciscus idus</i> 3500 mg/L
Persistence and Degradability:	Biodegradability: not applicable
Bioaccumulative Potential:	No data available
Mobility in Soil:	Low potential for adsorption in soil

13. DISPOSAL CONSIDERATIONS

Product Disposal:	Recycle/reuse. Precipitate/make insoluble. Remove to an authorized dump (Class I). 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 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.
Container Disposal:	Dispose of according to state, federal and local regulations.

14. TRANSPORT INFORMATION

Classification:	Based on available information, not classified as Dangerous Goods for
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	transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail, 7 th Edition.
UN Number:	None allocated
Proper Shipping Name or Technical Name:	None allocated
Transport Hazard Class:	None allocated
Packing Group:	None allocated
Environmental Hazards for Transport Purposes:	None allocated
Special Precautions for User:	None allocated
HAZCHEM Code:	None allocated

15. REGULATORY INFORMATION

SUSMP:	Not scheduled
APVMA:	Exempt from registration
State Departments of Agriculture / Primary Industries:	Registration not required
Australian Inventory of Chemical Substances (AICS):	All components listed

16. OTHER INFORMATION

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

Glossary:

ACGIH	American Conference of Government Industrial Hygienists
APVMA	Australian Pesticides and Veterinary Medicines Authority
CAS	Chemical Abstract Services number, used to uniquely identify chemical compounds
NOHSC	National Occupational Health and Safety Commission
PPE	Personal protective equipment

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SUSMP Standard for the Uniform Scheduling of Medicines and Poisons

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