	Product	Engage P-K
	Document Reference	SDS_01_4 Growth Ag - Engage P-K_TC_final24Jul2019
	Revised	July 2019
	To be Revised	July 2024
	Page	1 of 7

SAFETY DATA SHEET

Section 1 : IDENTIFICATION

Product identifier	Engage P-K
Other means of identification	Liquid potassium and phosphate fertiliser
Details of manufacturer	Growth Agriculture Pty Ltd. PO Box 444, Wee Waa, NSW 2388, Australia. Freecall 1800 440 438 Phone (02) 6795 3787 Fax (02) 6795 3707
Emergency phone number	1800 440 438 or Poisons Information Centre (Australia) 13 11 26 Poisons Information Centre (NZ) 0800 764 766


Section 2 : HAZARDS IDENTIFICATION

Classification of the substance mixture	Not classified as hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia. Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition).
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Section 3 : COMPOSITION AND INFORMATION ON INGREDIENTS

The components in this formulation are considered not to be hazardous and therefore are not required to be disclosed according to the WHS Regulations. Following is the information for the active constituent which is not classified as hazardous in this formulation.

Identity of chemical ingredients	Potassium phosphate > 70% Water up to 100
CAS Number and other unique identifiers	7732-18-5 <i>Water</i>

	Product	Engage P-K
	Document Reference	SDS_01_4 Growth Ag - Engage P-K_TC_final24Jul2019
	Revised	July 2019
	To be Revised	July 2024
	Page	2 of 7

Section 4 : FIRST AID MEASURES

Description of necessary first aid measures

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Skin Contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed. If in doubt obtain medical advice.

Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.

Ingestion: If product is swallowed or gets in mouth, wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Medical attention and special treatment

Call the Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The contact numbers are in Section 1 in this SDS. Have this SDS with you when you call.

Section 5 : FIRE FIGHTING MEASURES

Suitable extinguishing media

The product is non-combustible however in case of fire, use carbon dioxide; dry chemical; protein foam; water mist.

Specific hazards arising from the chemical

There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

This product is likely to decompose only after heating to dryness, followed by further strong heating.

Fire decomposition products from this product may be toxic if inhaled.


Special protective equipment and precautions for fire fighters

Fire fighters should wear suitable protective clothing and breathing apparatus to prevent risk of exposure to products of decomposition.

Section 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid accidents, clean up immediately. Wear full protective clothing including eye protection (safety glasses or goggles), overalls and gloves (rubber or PVC). If vapour or mists cannot dissipate wear a respirator or breathing apparatus. However, if you have

	Product	Engage P-K
	Document Reference	SDS_01_4 Growth Ag - Engage P-K_TC_final24Jul2019
	Revised	July 2019
	To be Revised	July 2024
	Page	3 of 7

any doubts consult the Australian Standard mentioned below (section 8).

Environmental precautions

In the event of a major spill, prevent spillage from entering drains or water-courses. Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Methods and materials for containment and cleaning up

Stop any leak if safe to do so, and contain the spill. Absorb onto sand, vermiculite or other suitable absorbent material. If the spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product and place into labelled containers for recycling or salvage and dispose of promptly.

Residues may be slippery on flooring.

After spills, wash the area and prevent runoff from entering local drains. If a significant quantity of material enters drains, advise emergency services.

Section 7 : HANDLING & STORAGE

Precautions for safe handling

Keep exposure to this product to a minimum, and minimise the quantities kept in work areas.

Carefully read other sections of this SDS for details on personal protective measures (section 8) and make sure that those measures are followed. Also check the measures for storage which should be followed during handling in order to minimise risks to persons using the product in the workplace.


Avoid contact or contamination of product with incompatible materials (if any) listed in this SDS.

Conditions for safe storage, including any incompatibilities

Store packages of this product in a cool, dry and well-ventilated place out of direct sunlight. Store the product in the original package.

Avoid contact or contamination of product with incompatible materials (if any) listed in this SDS.

Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

	Product	Engage P-K
	Document Reference	SDS_01_4 Growth Ag - Engage P-K_TC_final24Jul2019
	Revised	July 2019
	To be Revised	July 2024
	Page	4 of 7

Section 8 : EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters – exposure standards, biological monitoring

Exposure limits (Time-weighted average [TWA] and short term exposure limit [STEL]) have not been established by SWA for any of the known significant ingredients in this product.

Given the lack of exposure limit data and the likely low toxicity as vapour, no recommendations can be provided on biological monitoring.

Appropriate engineering controls

Use in a cool, well-ventilated space. No special ventilation requirements are normally necessary for this product. However, make sure that the work environment remains clean and that vapours and mists are minimised.


Personal protective equipment (PPE)

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems. Also consult the following Australian Standards will provide general advice regarding safety clothing and equipment:
 Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

Eye/face protection: protective glasses or goggles is recommended when this product is being used.

Skin protection: Avoid contact even with mild skin irritants. Therefore, you should wear suitable impervious elbow-length gloves and facial protection when handling this product. Protective clothing be made from rubber or PVC is suggested.

Respiratory protection: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.


	Product	Engage P-K
	Document Reference	SDS_01_4 Growth Ag - Engage P-K_TC_final24Jul2019
	Revised	July 2019
	To be Revised	July 2024
	Page	5 of 7

Section 9 : PHYSICAL & CHEMICAL PROPERTIES

Physical Description & colour:	Clear liquid.
Odour:	No odour.
Boiling Point:	Approximately 100°C at 100kPa.
Freezing/Melting Point:	Approximately 0°C.
Volatiles:	Water component.
Vapour Pressure:	2.37 kPa at 20°C (water vapour pressure).
Vapour Density:	No data.
Specific Gravity:	1.39 at 20°C
Water Solubility:	Completely soluble in water.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	No data
Autoignition temp:	Not applicable - does not burn.

Section 10 : STABILITY & REACTIVITY

Reactivity	This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties
Chemical stability	At normal storage conditions this product is chemically stable.
Conditions to avoid	Avoid excessive heat, unventilated spaces and direct sunlight.
Incompatible materials and possible hazardous reactions	Avoid contact with strong oxidising substances.
Hazardous decomposition products	This product is likely to decompose only after heating to dryness, followed by further strong heating. Oxides of phosphorus and other phosphorus compounds. potassium compounds, phosphorus compounds

	Product	Engage P-K
	Document Reference	SDS_01_4 Growth Ag - Engage P-K_TC_final24Jul2019
	Revised	July 2019
	To be Revised	July 2024
	Page	6 of 7

Section 11 : TOXICOLOGICAL INFORMATION


Information on routes of exposure	No ingredient mentioned in the HCIS database is present in this product at hazardous concentrations. There is no data available indicating any particular target organs.
Symptoms related to exposure	No data available.
Numerical measures of toxicity	No data available.
Immediate, delayed and chronic health effects from exposure	No data available.
Exposure levels	No data available.
Data limitations	No data available.

Section 12 : ECOLOGICAL INFORMATION

Ecotoxicity	No data available.
Persistence and degradability	No specific data but unlikely to be persistent in the environment, likely to degrade.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.

Section 13 : DISPOSAL CONSIDERATIONS

Disposal methods	Containers should be emptied as completely as practical before disposal. If possible, recycle containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site. This product should be suitable for landfill. However, check with local Waste Disposal Authority before sending there. Note that product properties may have been changed in use, significantly altering its suitability for landfill. Do NOT dispose into sewers or waterways.
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	Product	Engage P-K
	Document Reference	SDS_01_4 Growth Ag - Engage P-K_TC_final24Jul2019
	Revised	July 2019
	To be Revised	July 2024
	Page	7 of 7

Section 14 : TRANSPORT INFORMATION

UN Number	Not applicable. Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.
Proper shipping name	Not applicable
Transport hazard class	Not applicable
Packaging group	Not applicable.
Environmental hazards	No data is available from literature.
Special precautions during transport	None known.
Hazchem code	Not applicable

Section 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product	No special provisions apply to this product.
Poisons schedule number	No poisons schedule number is available for this product nor for any of the main constituents

Section 16 : OTHER INFORMATION

Date of preparation or review	July 2019
Reason(s) for Issue:	Reviewed SDS in accordance with Preparation of safety data sheets for hazardous chemicals Code of Practice May 2018. Reissued with new date.
Key abbreviations or acronyms used	Where relevant, full wording followed by [square bracketing] abbreviations are provided in this SDS.

END OF DOCUMENT