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SAFETY DATA SHEET

Section 1 : IDENTIFICATION

Product identifier	GROWTH TOTAL K LIQUID FERTILISER
Other means of identification	Water solution of alkaline salts.
Recommended use and restrictions on use	Liquid fertiliser – source of potassium.
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	(Australia) 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 hazardous chemical	Not a Dangerous Good according to the Australian Dangerous Goods [ADG] Code 7 th edition. Classified as hazardous according to the criteria of SWA.
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Label elements, including precautionary statements



EYE IRRITATION - Hazard category: 2A

Signal word: Warning.

Hazard statement: H319 Causes serious eye irritation.


PRECAUTIONARY STATEMENTS:

P264 Wash affected body parts thoroughly after handling.

P280 Wear eye protection / face protection.

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

P337+P313 If eye irritation persists: Get medical

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advice/attention.



SKIN IRRITATION - Hazard category: 2

Signal word: Warning.

Hazard statement: H315 Causes skin irritation.

PRECAUTIONARY STATEMENTS:

P264 Wash affected body parts thoroughly after handling.

P280 Wear eye protection / face protection.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P321 Specific treatment – if skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.



ACUTE TOXICITY – ORAL - Hazard category: 4

Signal word: Warning.

Hazard statement: H302 Harmful if swallowed

PRECAUTIONARY STATEMENTS:


P264 Wash affected body parts thoroughly after handling.

P270 do not eat, drink, or smoke when using this product.

P301+P312 IF SWALLOWED: call a poison centre or doctor/physician if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container in accordance with local regulations.

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ACUTE TOXICITY – INHALATION - Hazard category: 4.

Signal word: Warning.

Hazard statement: H332 Harmful if inhaled.

PRECAUTIONARY STATEMENTS:

P261 Avoid breathing vapours/spray.

P271 Use only outdoors or in a well ventilated area.

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

P312 Call A POISON CENTRE or doctor/physician if you feel unwell.



SPECIFIC TARGET ORGAN TOXICITY (Single exposure) - Hazard category: 4

Signal word: Warning.

Hazard statement: H335 May Cause respiratory irritation.

PRECAUTIONARY STATEMENTS:

P261 Avoid breathing vapours/spray.

P271 Use only outdoors or in a well ventilated area.

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

P312 Call A POISON CENTRE or doctor/physician if you feel unwell.


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 regulations.

Other hazards which do not result in classification

None stated.

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Section 3 : COMPOSITION AND INFORMATION ON INGREDIENTS

Identity of chemical ingredients	Contains Potassium carbonate. Contains water.
CAS Number and other unique identifiers	584-08-7 <i>Potassium carbonate</i> . 7732-18-5 <i>Water</i> .
Concentration of ingredients	Potassium carbonate 74%. Water to 100%.

Section 4 : FIRST AID MEASURES

Description of necessary first aid measures	<p>If product is swallowed or gets in mouth, do not induce vomiting. 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. For advice, contact a Poisons Information Centre (phone Australia 13 11 26) or a doctor at once.</p> <p>If product gets in eyes, quickly and gently blot or brush away product. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water until the product is removed or until a few minutes after irritation has ceased, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.</p> <p>If skin contact occurs, quickly and gently, blot or brush away excess chemical. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts). Completely decontaminate clothing, shoes and leather goods before reuse or discard. If irritation persists, repeat flushing and obtain medical advice.</p>
Symptoms caused by exposure	<p>Eyes: This product is an eye irritant. Symptoms may include stinging and reddening of eyelids and conjunctiva. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.</p> <p>Skin: This product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.</p> <p>Ingestion: Significant oral exposure is considered to be unlikely. This product is irritating to the gastrointestinal</p>



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tract and will cause pain if swallowed.

Inhalation: Significant inhalation exposure is considered to be unlikely. However product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased.

Medical attention and special treatment

You should 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 Not combustible. Use extinguishing media suited to burning materials.

Specific hazards arising from the chemical There is no risk of 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.

Special protective equipment and precautions for fire fighters No specific protective equipment required.
HAZCHEM code: Not applicable

Section 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures Wear full protective clothing including eye/face protection. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered.
Usually, no respirator is necessary when using this product.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where product is being used.

Environmental precautions In the event of a major spill, prevent spillage from entering drains or water-courses. Absorb onto sand, vermiculite or other suitable absorbent material. If 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. After spills, wash area, preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services.
Contaminated area may be neutralised by washing with



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weak or dilute acid. Vinegar, citrus juice and most soft drinks may be suitable.

Methods and materials for containment and cleaning up

Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning.

Contaminated area may be neutralised by washing with weak or dilute acid. Vinegar, citrus juice and most soft drinks may be suitable.

Usually, no respirator is necessary when using this product. However, if there is a significant chance that vapours or mists are likely to build up in the clean-up area, we recommend that you use a respirator.

NOTE : Please read the product label for additional information. Instructions on the label must take precedence over this SDS.

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, and make sure that those measures are followed. Also check the measures for storage.

Conditions for safe storage, including any incompatibilities

This product is a Scheduled Poison (Alkaline Salts – Sched 5). Observe all relevant regulations regarding sale, transport and storage of this class of poison. Store packages of this product in a cool place. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. 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.

NOTE : Please read the product label for additional information. Instructions on the label must take precedence over this SDS.

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Section 8 : EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters – exposure standards, biological monitoring	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. Exposure limits have not been set by SWA for any of the significant ingredients in this product.
Appropriate engineering controls	Use in a cool, well-ventilated space. Have spillage kits available on site.
Personal protective equipment (PPE)	<p>No special equipment is normally needed for the routine handling of this product. However good practice suggests that you should have eye protection available in the form of safety glasses, goggles or a face mask, as this product contains substances known to cause eye irritation.</p> <p>When handling bulk amounts of this product, wear full protective clothing including eye/face protection. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered.</p> <p>Usually, no respirator is necessary when using this product.</p>

Section 9 : PHYSICAL & CHEMICAL PROPERTIES

Appearance	Yellow liquid.
Odour	No odour.
Odour threshold	No data available.
pH	~13.0.
Melting point/Freezing point	Below -10 °C.
Boiling point and boiling range	Approximately 110 °C. (100 kPa).
Flash point	Not flammable, not combustible.
Evaporation rate	No data available.
Flammability	Not flammable.
Upper & lower flammability limits	Not flammable.




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Vapour pressure	2.37 kPa at 20°C.
Vapour density	No data available.
Relative density	~1.515
Solubility	Completely soluble in water
Partition coefficient (n.octanol:water)	This product is an aqueous solution / suspension.
Auto-ignition temperature	Will not auto-ignite.
Decomposition temperature	No data available.
Viscosity	As for water.
Specific heat value	As for water.
Particle size	This product is an aqueous solution / suspension.
Volatile organic compounds content	No data available.
% volatile	No data available.
Saturated vapour concentration	No data available.
Release of invisible flammable vapours and gases	No data available, but none likely.

ADDITIONAL PARAMETERS

Shape and aspect ratio	Not applicable.
Crystallinity	Not applicable.
Dustiness	Not applicable.
Surface area	Not applicable.
Surface area	Not applicable.
Degree of aggregation or agglomeration	Not applicable.
Ionisation (redox potential)	No data available.
Biodurability or biopersistance	No data available.


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Section 10 : STABILITY & REACTIVITY

Reactivity	<p>This product is unlikely to react under normal storage conditions. However, if you have any doubts, contact the supplier for shelf life properties.</p> <p>This product will not undergo polymerisation reactions.</p>
Chemical stability	<p>This product is unlikely to decompose under normal storage conditions. However, if you have any doubts, contact the supplier for shelf life properties.</p>
Conditions to avoid	<p>Protect this product from light. Store in closed original container, in a dry, cool, well ventilated area out of direct sunlight.</p>
Incompatible materials and possible hazardous reactions	<p>Incompatible with acids.</p>
Hazardous decomposition products	<p>This product is likely to decompose only after heating to dryness, followed by further strong heating, resulting in liberation of carbon dioxide, usually without carbon monoxide and smoke; potassium compounds.</p>

Section 11 : TOXICOLOGICAL INFORMATION

Information on routes of exposure	<p>Eye, skin and mucous membranes.</p>
Symptoms related to exposure	<p>Eyes: This product is an eye irritant. Symptoms may include stinging and reddening of eyelids and conjunctiva. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.</p> <p>Skin: This product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.</p> <p>Ingestion: Significant oral exposure is considered to be unlikely. This product is irritating to the gastrointestinal tract and will cause pain if swallowed.</p> <p>Inhalation: Significant inhalation exposure is considered to be unlikely. However product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased.</p>
Numerical measures of toxicity	<p>None known</p>

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Immediate, delayed and chronic health effects from exposure	Short term effects as listed above. No data available for health effects associated with long-term exposure.
Exposure levels	Exposure limits have not been established by SWA for any of the significant ingredients in this product.
Data limitations	No data available.

Section 12 : ECOLOGICAL INFORMATION

Ecotoxicity	This product is unlikely to adversely affect the environment at small quantities. It does not degrade naturally and will not cause ecological problems because it does not enter biological systems. At excessive quantities, can cause harm to aquatic systems due to high pH. Spills can be neutralised by weak acids such as vinegar.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No specific data but being an aqueous solution, this product is likely to be mobile.
Other adverse effects	No data available.

Section 13 : DISPOSAL CONSIDERATIONS

Safe handling and disposal methods	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. Always check local regulations. Do not dispose into sewers or waterways.
Disposal of any contaminated packaging	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.
Environmental regulations	Do not dispose into sewers or waterways.

NOTE : Please read the product label for additional information. Instructions on the label must take precedence over this SDS.



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Section 14 : TRANSPORT INFORMATION

UN Number	No UN number allocated.
Proper shipping name	Not specified in the Australian Dangerous Goods Code 7 th edition.
International Air Transport Association (IATA)	Not regulated as per IATA
Packaging group	No data provided in the Australian Dangerous Goods Code 7 th edition.
Environmental hazards	At excessive quantities, can cause harm to aquatic systems due to high pH. Spills can be neutralised by weak acids such as vinegar..
Special precautions during transport	This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.
Hazchem code	No data provided in the Australian Dangerous Goods Code 7 th edition.

Section 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product	See precautionary statements in section 2.
Poisons schedule number	S5 Caution.

Section 16 : OTHER INFORMATION

Date of preparation or review	January 2015
Key abbreviations or acronyms used	Where relevant, full wording followed by [square bracketing] abbreviations are provided in this SDS.

END OF DOCUMENT