

Infosafe No™ 3NUJO	Issue Date : July 2016	ISSUED by NUFARM
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 Product Name **CottonQuik Cotton Harvest Aid**

Classified as hazardous

1. Identification

GHS Product Identifier	CottonQuik Cotton Harvest Aid
Product Code	1265
Product Type	Plant Growth Regulator
Company Name	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address	103-105 Pipe Road Laverton North Victoria 3026 Australia
Telephone/Fax Number	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
Emergency phone number	1800 033 498 (24hr Australia)
Recommended use of the chemical and restrictions on use	For accelerated boll opening and enhanced defoliation of cotton as per the Directions for Use table on the label.
Other Information	This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

2. Hazard Identification

GHS classification of the substance/mixture	Acute Toxicity - Oral: Category 4 Eye Damage/Irritation: Category 1 Skin Corrosion/Irritation: Category 2 STOT Single Exposure Category 3 (respiratory tract irritation) Corrosive to Metals: Category 1
Signal Word (s)	DANGER
Hazard Statement (s)	Harmful if swallowed. Causes serious eye damage. Causes skin irritation. May cause respiratory irritation. May be corrosive to metals.
General Precautionary Statement (s)	If medical advice is needed, have product container or label at hand. Keep out of reach of children.
Pictogram (s)	Read label before use. Corrosion, Exclamation mark, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



Precautionary statement – Prevention	Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves, clothing, eye and face protection. Avoid breathing spray.
Precautionary statement – Response	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Other Information	Poisons Schedule S6

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3. Composition/information on ingredients

Chemical Characterization	Liquid		
Ingredients	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Ethephon	16672-87-0	275 g/L
	Water		10-30 %
	1-Amino methanamide dihydrogen tetraoxosulfate	21351-39-3	873 g/L

4. First-aid measures

Inhalation	Remove affected person to fresh air until recovered. Obtain medical advice.
Ingestion	Rinse mouth thoroughly with water. Rinse mouth and then drink plenty of water. Seek medical advice immediately.
Skin	If skin contact occurs, remove contaminated clothing and wash skin thoroughly with water. Remove contaminated clothing and launder before re-use. Seek medical advice, but only after the exposed skin has been thoroughly washed.
Eye contact	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice immediately.
First Aid Facilities	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
Advice to Doctor	Treat symptomatically for strong acid and highly corrosive materials, however, use of alkaline neutralising agents is contraindicated because of possible ethylene formation. Due to the corrosive property of this material, emesis is contraindicated. In a patient with severe over-exposure by ingestion, careful gastric lavage is required due to the possibility of stomach or esophageal perforation. First aid instructions recommending atropine therapy for cholinesterase inhibition are mandated by the Department of Health and Aging. Ethephon has been shown to inhibit plasma and erythrocyte cholinesterase in animal studies, however effects on brain cholinesterase have not been observed. It may produce a mild cholinergic effect. Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media	If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.
Hazards from Combustion Products	If involved in a fire, the dehydrated components may emit oxides of carbon, hydrogen chloride and oxides of phosphorous.
Special Protective Equipment for fire fighters	Breathable air apparatus should be worn when fighting a fire in which this product is involved.
Specific hazards arising from the chemical	Considered low risk due to water content, however upon evaporation of water the product is combustible.
Hazchem Code	2X
Other Information	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. Accidental release measures

Spills & Disposal	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.

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Clean-up Methods - Large Spillages Place damaged containers in recovery bins (if available) and return to manufacturer.
If large liquid spills occur, attempt to recover as much spilt material from sumps and banded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.

7. Handling and storage

Precautions for Safe Handling CottonQuik is corrosive to metals. Mix only the quantity of spray required for immediate use and do not allow to stand in metal containers for more than 2 hours.

Conditions for safe storage, including any incompatibilities Store in the closed, original container in a cool, well ventilated area. Do not store for prolonged periods in direct sunlight.

Tank Cleaning CottonQuik may be corrosive to metal parts of the sprayer. Thoroughly flush tanks, pumps and nozzles with water after use.
See label for detailed information on cleaning of spray equipment.

Other Information Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection

Occupational exposure limit values No exposure standards have been set for this product or the active ingredients.

Appropriate engineering controls Handle in well ventilated areas, generally natural ventilation is adequate.

Eye Protection Eye protection is essential.

Wear a faceshield or chemical goggles.

Personal Protective Equipment When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles.

Hygiene Measures After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
After each day's use, wash contaminated clothing and safety equipment.

9. Physical and chemical properties

Form Liquid

Appearance Pale yellow to brown liquid

Odour Slight pungent odour

Solubility in Water Soluble in water.

Specific Gravity 1.49

pH <2

Vapour Pressure <0.01 mPa @ 20°C

Partition Coefficient: n-octanol/water Kow Log P is <2.2

Flash Point >100°C

Flammability Not flammable

Other Information pKa1 is 2.5; pKa2 is 7.2 for Ethephon

10. Stability and reactivity

Chemical Stability The product is very stable at pH <3.5 and does not cause any degradation when stored in normal conditions and at temperatures < 75°C.
At higher pH, possible decomposition with ethylene emission.
This material will vigorously decompose releasing carbon dioxide if heated above 110°C.

Incompatible Materials Do not mix, store or apply the product or spray solutions of the product in galvanised steel or unlined steel (except stainless steel) containers or spray tanks.

Avoid contact with alkaline materials.

Do not expose mild steel, leather, nylon or acid sensitive resins such as

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Possibility of hazardous reactions	delrin and celcon to undiluted product. Reacts with alkaline materials, metallic salts and metals such as iron, copper and aluminium. Hazardous decomposition products include hydrogen chloride and ethylenes. Reacts with sodium chlorate to emit toxic chlorine fumes.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat) 500 - 5000 mg/kg for this product
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for this product
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >2.05 mg/l for this product
Ingestion	May cause burns to the mouth, throat, oesophagus and stomach.
Inhalation	May cause irritation to the respiratory tract if mists or aerosols are inhaled. Severe over-exposure by inhalation can cause pulmonary oedema, which may be delayed.
Skin	Will irritate the skin. Unless removed immediately, will cause burns.
Eye	The concentrate will cause irritation of the eyes. Will cause burns unless immediate treatment is given.
Skin Sensitisation	Product is not a skin sensitiser.
Reproductive Toxicity	Data indicates no reproductive effects.
Chronic Effects	Regular exposure may result in lowering of cholinesterase activity which will recover within a few days after exposure ceases.
Serious eye damage/irritation	Product is a severe eye irritant.
Skin corrosion/irritation	The product is a skin irritant.
Other Information	The Australian Acceptable Daily Intake (ADI) for ethephon for a human is 0.02 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.17 (H) mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Aust Govt Dept. of Health, Office of Chemical Safety, 'ADI List', December 2015).

12. Ecological information

Other Precautions	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Environmental Protection	Spray drift should be avoided, read the label for more information.
Acute Toxicity - Fish	LC50 (96hr) for rainbow trout is 720 mg/l for ethephon LC50 (96hr) for carp is >140 mg/l for a similar product
Acute Toxicity - Daphnia	LC50 (48hr) for daphnia is 1000 mg/l for ethephon.
Acute Toxicity - Algae	EC50 (24-48h) for chlorella vulgaris 32 mg/l.
Acute Toxicity - Other Organisms	The following data is for the active ingredient, ethephon. LD50 for bobwhite quail is 1072 mg/kg Not toxic to bees.

13. Disposal considerations

Product Disposal	On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemClear®).
Container Disposal	Do not use this container for any other purpose. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank.

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If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility.

If an approved waste management facility is not available, bury the empty packaging 500mm below the surface in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations.

DO NOT burn empty containers or product. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program.

Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage.

14. Transport information

U.N. Number	3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.- {contains 18% Ethephon and 59% Aminomethanamide tetraoxosulfate}
Transport hazard class(es)	8
Hazchem Code	2X
Packaging Method	3.8.8
Packing Group	III
Storage and Transport	Considered dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
EPG Number	8A1
IERG Number	37

15. Regulatory information

Regulatory Information	WHS Schedule 11: item 40.
Poisons Schedule	S6
Packaging & Labelling	
Other Information	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 59506.

16. Other Information

Date of preparation or last revision of SDS	Reviewed 01/07/2016. This SDS replaces document dated October 2013.
Contact Person/Point	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
Revisions Highlighted	The SDS was reviewed. Various changes were made to the information. May be corrosive to metals. ...End Of MSDS...

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