

Infosafe No™ 3NUY4	Issue Date : August 2017	ISSUED by NUFARM
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 Product Name **ALLIANCE® Herbicide**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	ALLIANCE® Herbicide
<b>Product Code</b>	0964 <span style="float: right;">NUL 1254</span>
<b>Product Type</b>	Group L Q Herbicide
<b>Company Name</b>	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
<b>Address</b>	103-105 Pipe Road Laverton North Victoria 3026 Australia
<b>Telephone/Fax Number</b>	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
<b>Emergency phone number</b>	1800 033 498 (24hr Australia)
<b>Recommended use of the chemical and restrictions on use</b>	For the control of a wide range of grasses and broadleaf weeds as per the Directions for Use table on the label. FOR USE ONLY AS AN AGRICULTURAL AND HORTICULTURAL HERBICIDE. THIS PRODUCT IS TOO HAZARDOUS TO BE USED IN THE HOME GARDEN.
<b>Other Information</b>	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

<b>GHS classification of the substance/mixture</b>	TR2 Toxic to Reproduction: Category 2 IT 4 Acute Toxicity - Inhalation: Category 4 OT3 Acute Toxicity - Oral: Category 3 ED1 Eye Damage/Irritation: Category 1 SC-2 Skin Corrosion/Irritation: Category 2 RE1 STOT Repeated Exposure Category 1 SE-3RES STOT Single Exposure Category 3 (respiratory tract irritation) AC1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	H361 Suspected of damaging fertility or the unborn child. H332 Harmful if inhaled. H301 Toxic if swallowed. H318 Causes serious eye damage. H315 Causes skin irritation. H372 Causes damage to organs through prolonged or repeated exposure. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
<b>General Precautionary Statement (s)</b>	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read label before use.
<b>Pictogram (s)</b>	Health hazard, Skull and crossbones, Corrosion, Environment, The below pictograms are GHS Hazard symbols for workplace use only. See SECTION 14 for Dangerous Goods information.



<b>Precautionary statement – Prevention</b>	P202 Do not handle until all safety precautions have been read and understood. P264 Wash hands and exposed skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves, clothing, eye and face protection. P260 Do not breathe spray.
<b>Precautionary statement – Response</b>	P308+P313 IF exposed or concerned: Get medical advice/attention. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Infosafe No™ 3NUY4	Issue Date : August 2017	ISSUED by NUFARM
--------------------	--------------------------	------------------

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P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P330 Rinse mouth.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER or doctor/physician.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P362 Take off contaminated clothing and wash before reuse.  
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
 Poisons Schedule S7 DANGEROUS POISON

**Other Information**
**3. Composition/information on ingredients**

<b>Chemical Characterization</b>	Liquid		
<b>Ingredients</b>	<b>Name</b>	<b>CAS</b>	<b>Proportion</b>
	Amitrole	61-82-5	250 g/L
	Paraquat present as Paraquat dichloride	1910-42-5	125 g/L
	Emulsifiers		0-10 %
	Water		Balance

**4. First-aid measures**

<b>Inhalation</b>	Remove patient from exposure, keep warm and at rest. Obtain medical attention urgently.
<b>Ingestion</b>	RAPID TREATMENT IS ESSENTIAL IN CASE OF PARAQUAT POISONING. Immediately transfer patient to nearest hospital or medical centre, warning by telephone of the estimated time of arrival so that the start of treatment is not delayed. If swallowed, do NOT induce vomiting; make every effort to prevent vomit from entering the lungs by careful placement of the patient. Rinse mouth. A slurry of activated charcoal or clay (fuller's earth, bentonite) may be administered by a trained person. Ingestion of activated charcoal tablets, food, or even plain dirt, may be of benefit if absorbent slurry cannot be given.
<b>Skin</b>	Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use. Seek medical advice, but only after the exposed skin has been thoroughly washed.
<b>Eye contact</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice immediately.
<b>First Aid Facilities</b>	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
<b>Advice to Doctor</b>	RAPID TREATMENT FOR PARAQUAT POISONING IS ESSENTIAL. Evacuation of the stomach, stomach washout and administration of adsorbents should be carried out as quickly as possible. A booklet entitled 'Paraquat Poisoning, a practical guide to diagnosis, first aid and hospital treatment' (prepared by Syngenta) is available at major hospitals or Poisons Information Centres, or contact the emergency number at the end of this SDS. TREATMENT: Wash out stomach and test urine and gastric aspirate (if clear) for presence of paraquat. Give activated charcoal (100 g for adults or 2 g / kg body weight for children) orally or via gastric tube, together with a suitable purgative (200 ml of an aqueous solution of mannitol). Alternatively, 1 litre of 15% aqueous suspension of Fuller's Earth or a 7% suspension of bentonite in 10% glycerol in water should be used if activated charcoal is unavailable. Repeat administration of adsorbent plus purgative until adsorbent is seen in the stools. This should normally take between 4 and 6 hours after the start of treatment. NOTE: The use of gastric lavage without administration of an adsorbent has not shown any clinical benefit. Do not use supplemental oxygen. Treat skin irritation / damage symptomatically with daily review if

Infosafe No™ 3NUY4	Issue Date : August 2017	ISSUED by NUFARM
--------------------	--------------------------	------------------

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contaminated with concentrate as blistering and chemical burns may develop over 1 to 3 days. If systemic toxicity is suspected, test for paraquat in urine or blood and treat confirmed paraquat systemic toxicity as above.

**Indication of immediate medical attention and special treatment needed if necessary**

OBTAIN IMMEDIATE MEDICAL ATTENTION.  
SPEED IS ESSENTIAL.

## 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** Non-combustible.  
If involved in a fire, the dehydrated components may emit oxides of carbon, oxides of nitrogen and hydrogen chloride.

**Special Protective Equipment for fire fighters** Breathable air apparatus must be worn when fighting a fire in which this product is involved.

**Hazchem Code** 2X

## 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.  
On-site disposal of concentrate is not acceptable.  
If possible, ring 1800 033 498 for specialist advice.

**Personal Protection** Wear specified PPE to decontaminate personnel and equipment, or to handle broken packages or containers.  
Wear eye protection, chemically resistant gloves, rubber boots, chemically resistant overalls and full face shield with chin guard. Decontaminate emergency personnel with soap and water before leaving the emergency area.

**Clean-up Methods - Large Spillages** If large liquid spills occur, attempt to recover as much spilt material from sumps and bunded areas, as possible, before absorbing remaining material into vermiculite or other absorbent.

**Environmental Precautions** Use earthen bunds or absorbent bunding to prevent spreading of spillage.  
Prevent from entering into drains, ditches, rivers or the sea. This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

## 7. Handling and storage

**Precautions for Safe Handling** Avoid contact of the concentrate with skin cuts or abrasions. Do not work in spray mist. Do not continue to use if skin irritation or nose bleed occurs. This may be caused by exposure to spray mist as the result of incorrect use of equipment or adverse climatic conditions. Stop and review handling and spraying techniques before further spraying. If symptoms persist seek medical advice.  
For use by licensed pest control operators or primary producers only.

**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.  
Store in a locked enclosure.  
For use by licensed pest-control operators or primary producers only.

**Tank Cleaning** Thoroughly flush all spray equipment with water following the use of this product and before use with other products.

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

## 8. Exposure controls/personal protection

**Occupational exposure limit values** No exposure standard for this product has been set, however, an exposure standard has been set for paraquat (respirable sizes) at 0.1 mg/m<sup>3</sup>.  
Safe Work Australia has set the following exposure standard for amitrole :  
TLV (TWA) 0.2 mg/m<sup>3</sup>, STEL -.

Infosafe No™ 3NUY4	Issue Date : August 2017	ISSUED by NUFARM
--------------------	--------------------------	------------------

 Product Name **ALLIANCE® Herbicide**

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<b>Appropriate engineering controls</b>	<p>No special requirements.</p> <p>Ensure workplace is well ventilated.</p> <p>Some people who are extremely sensitive to the product may develop nose bleeds when handling the concentrate. If possible, these people should not handle the material; if they must, provide effective local ventilation.</p>
<b>Respiratory Protection</b>	<p>If exposure to vapour, spray or dusts from dried product is expected, wear a high efficiency particulate respirator covering nose and mouth.</p>
<b>Personal Protective Equipment</b>	<p>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 face shield or goggles.</p> <p>Re-entry period: Do not enter treated area until spray has dried.</p>
<b>Hygiene Measures</b>	<p>When there is a risk of exposure to spray mist wear waterproof footwear and waterproof protective clothing, impervious gauntlet length gloves (rubber or PVC), goggles and a face mask and respirator covering nose and mouth and capable of filtering spray droplets. A high efficiency type particulate respirator is recommended, but in any event use a respirator which complies with the requirements of AS1716 (Standards Association of Australia). Further advice on safety equipment should be obtained from a safety equipment manufacturer.</p> <p>Avoid contacting vegetation wet with spray, but if necessary to do so, wear waterproof footwear and waterproof protective clothing and gloves.</p> <p>After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.</p> <p>After each day's use, wash contaminated clothing and safety equipment.</p>

## 9. Physical and chemical properties

<b>Form</b>	Liquid
<b>Appearance</b>	Clear dark green liquid
<b>Odour</b>	Obnoxious odour
<b>Boiling Point</b>	~100°C
<b>Solubility in Water</b>	Soluble in water.
<b>Specific Gravity</b>	1.11
<b>pH</b>	5.0 - 6.5
<b>Vapour Pressure</b>	<1 x 10 <sup>-2</sup> mPa (25°C, paraquat dichloride)
<b>Partition Coefficient: n-octanol/water</b>	Kow Log P is -4.5 (20°C)
<b>Flammability</b>	Non combustible material.

## 10. Stability and reactivity

<b>Chemical Stability</b>	Paraquat is inactivated by adsorption onto clay.
<b>Incompatible Materials</b>	Paraquat is highly corrosive to most metals, e.g. aluminium, zinc and iron.
<b>Possibility of hazardous reactions</b>	Keep away from strong oxidising agents.

## 11. Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 (rat) 129 - 157 mg/kg for paraquat dichloride LD50 (guinea pig) 30 - 58 mg/kg LD50 (rat) 1100 - 24600 mg/kg for amitrole
<b>Acute Toxicity - Dermal</b>	LD50 (rat) 911 mg/kg for paraquat dichloride LD50 (rabbit) 240 mg/kg for paraquat ion May cause temporary damage to nails and a delay in the healing of cuts and wounds.
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) 0.5 - 1.5 µg/l for paraquat dichloride
<b>Ingestion</b>	TREATMENT OF PARAQUAT POISONING MUST COMMENCE AS RAPIDLY AS POSSIBLE.

Infosafe No™ 3NUY4

Issue Date : August 2017

ISSUED by NUFARM

 Product Name **ALLIANCE® Herbicide**

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<b>Inhalation</b>	<p>Rapid treatment is essential. The immediate effects of poisoning depend on the dose of paraquat absorbed into the blood. Mild poisoning occurs at &lt;20 mg paraquat ion/kg body weight and the effects are vomiting and diarrhoea. Moderate to severe poisoning occurs at 20-30 mg paraquat ion/kg body weight and the effects are vomiting, abdominal discomfort, soreness and inflammation of the mouth, throat and oesophagus, difficulty in swallowing and, later, diarrhoea. Kidney and liver damage may appear 1-3 days after exposure. Can cause death by a delayed proliferating fibrosis of the lung within 1-3 weeks. Lethal poisoning occurs at &gt;30 mg paraquat ion/kg body weight and the effects are nausea and vomiting, and can cause death by multi-organ failure and circulatory collapse within 48 hours.</p> <p>Highly toxic if inhaled.</p> <p>Nose bleeding and soreness of the throat may result from spray mist or dust trapped on the nasal mucosa. Irritating to the respiratory system. Pulmonary oedema may occur up to 48 hours after exposure and could prove fatal. If the concentrate is allowed to dry out, solid paraquat dust can be created. Paraquat dust is highly toxic (TLV 0.1mg/m<sup>3</sup>) and should not be handled without full respiratory protection.</p> <p>This product contains a stenching agent to give an offensive smell. This has been done to reduce the likelihood of accidental ingestion. This stenching agent may cause headaches and nausea in some people when inhaled. The presence of this offensive smell in the air does not necessarily indicate the presence of paraquat.</p>
<b>Skin</b>	<p>Contact with the concentrate on skin will result in moderate irritation. Can cause inflammation and, in severe cases, blistering of the skin. Contamination of the nails may cause white spots or, in severe cases, cracking and loss of the nail. Normal growth follows without delay. Intact skin is a very effective barrier to paraquat. Damaged skin removes the barrier and paraquat may be absorbed with effects as outlined above under ingestion.</p>
<b>Eye</b>	<p>Eye irritation may be delayed. May lead to ulceration of corneal and conjunctival epithelium giving rise to secondary infection. Although healing may be slow, the injury is superficial and with proper medical care will be complete, even in severe cases.</p>
<b>Skin Sensitisation</b>	<p>Product is not a skin sensitiser.</p>
<b>Carcinogenicity</b>	<p>The weight of the evidence is that paraquat and amitrole are not carcinogenic.</p>
<b>Reproductive Toxicity</b>	<p>Amitrole is a suspected human reproductive toxicant based on evidence from humans or experimental animals which is not sufficiently convincing to place the substance in a more severe category.</p>
<b>Chronic Effects</b>	<p>Chronic Exposure: For Amitrole:</p>
<b>Serious eye damage/irritation</b>	<p>This product is a severe eye irritant.</p>
<b>Skin corrosion/irritation</b>	<p>The product is a skin irritant.</p>
<b>Other Information</b>	<p>The Australian Acceptable Daily Intake (ADI) for paraquat (as cation) for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.45 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', March 2016). ADI for amitrole is 0.0003 mg/kg/day, NOEL 0.025 mg/kg/day.</p>

## 12. Ecological information

<b>Persistence and degradability</b>	<p>Paraquat is rapidly absorbed and inactivated by contact with soil. There is evidence of photodegradation in air.</p>
<b>Known Harmful Effects on the Environment</b>	<p>The product is a marine pollutant for sea transport.</p>
<b>Other Precautions</b>	<p>Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.</p>
<b>Environmental Protection</b>	<p>Spray drift can cause damage, read the label for more information.</p>

Infosafe No™ 3NUY4	Issue Date : August 2017	ISSUED by NUFARM
--------------------	--------------------------	------------------

Product Name **ALLIANCE® Herbicide**

Classified as hazardous

<b>Acute Toxicity - Fish</b>	LC50 (96hr) for rainbow trout is 15 mg/l for paraquat dichloride Amitrole is not toxic to fish.
<b>Acute Toxicity - Daphnia</b>	EC50 (48hr) for daphnia is 1.2 mg/l for paraquat dichloride.
<b>Acute Toxicity - Algae</b>	ECr50 (72hr) for algae is 0.32 mg/l.
<b>Acute Toxicity - Other Organisms</b>	The following data is for the active ingredient, paraquat dichloride . LD50 for mallard duck is 199 mg/kg LD50 for bobwhite quail is 175 mg/kg Bees: Not toxic to bees. LD50 36 µg/bee. Amitrole is not toxic to birds or bees.

### 13. Disposal considerations

<b>Product Disposal</b>	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®).
<b>Container Disposal</b>	Do not use this container for any other purpose. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. 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

<b>U.N. Number</b>	2922
<b>UN proper shipping name</b>	CORROSIVE LIQUID, TOXIC, N.O.S. - (Contains Paraquat)
<b>Transport hazard class(es)</b>	8
<b>Sub.Risk</b>	6.1
<b>Hazchem Code</b>	2X
<b>Packaging Method</b>	3.8.6.1
<b>Packing Group</b>	III
<b>Storage and Transport EPG Number</b>	Considered dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail. 8C3
<b>IERG Number</b>	37
<b>UN Number (Sea Transport)</b>	2922
<b>IMO Class/Packing Group</b>	Class 8, subrisk 6.1; Packing Group III
<b>IMO Marine Pollutant</b>	Marine Pollutant



# Safety Data Sheet

infosafe  
CS: 1.7.2

Page: 7 of 7

Infosafe No™ 3NUY4 Issue Date : August 2017 ISSUED by NUFARM

Product Name **ALLIANCE® Herbicide**

Classified as hazardous

**IMO Proper Shipping Name** CORROSIVE, LIQUID, TOXIC, N.O.S.  
(contains paraquat)

## 15. Regulatory information

**Regulatory Information** WHS Schedule 11, item 40 ( corrosive to metals ), item 34 ( acute toxicity category 2 ).

**Poisons Schedule** S7

**Packaging & Labelling** DANGEROUS POISON  
KEEP OUT OF REACH OF CHILDREN  
CAN KILL IF SWALLOWED  
DO NOT PUT IN DRINK BOTTLES  
KEEP LOCKED UP

**Other Information** READ SAFETY DIRECTIONS BEFORE OPENING OR USING

This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 62042.

## 16. Other Information

**Date of preparation or last revision of SDS** Revised 28/08/2017  
This SDS replaces document dated June 2017.

**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. Minor changes were made to the information and product has been rebranded.  
Section 1 - new product code assigned.  
...End Of MSDS...

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