

Infosafe No™ 3NU76 Issue Date : March 2013 ISSUED by CRPCARE

Product Name **ALLIANCE® Herbicide**

Classified as hazardous

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name ALLIANCE® Herbicide
Product Code 0492
Product Type Group L Q Herbicide
Company Name Crop Care Australasia Pty Ltd (ABN 53 061 362 347)
Address Unit 15/16 Metroplex Avenue Murarrie
 Queensland 4172 Australia
Emergency Tel. 1800 033 498 (24hr Australia)
Telephone/Fax Number Tel: +61 7 3909 2000
 Fax: +61 7 3909 2010
Recommended Use 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.
Other Information This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. HAZARDS IDENTIFICATION

Hazard Classification Classified as hazardous
 HAZARDOUS SUBSTANCE.
 DANGEROUS GOODS.
 Hazard classification according to the criteria of NOHSC.
 Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s) Classified as hazardous
 R21/22 Harmful in contact with skin and if swallowed.
 R26 Very toxic by inhalation.
 R40(3) Possible risk of irreversible effects.
 R48/25 Toxic: danger of serious damage to health by prolonged exposure if swallowed.
Safety Phrase(s) S1/2 Keep locked up and out of reach of children.
 S13 Keep away from food, drink and animal feeding stuffs.
 S23 Do not breathe gas/fumes/vapour/spray
 S28 After contact with skin, wash immediately with plenty of
 S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 S38 If insufficient ventilation, wear suitable respiratory equipment.
 S45 In case of accident or if you feel unwell seek medical advice immediately
Other Information Poisons Schedule S7 DANGEROUS POISON

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

Ingredients	Name	CAS	Proportion
	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

Inhalation Remove patient from exposure, keep warm and at rest.
 Obtain medical attention urgently.
Ingestion 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

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Skin	<p>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.</p> <p>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.</p>
Eye	<p>Wash affected areas thoroughly with soap and water.</p> <p>Remove contaminated clothing and laundry before re-use.</p> <p>Seek medical advice, but only after the exposed skin has been thoroughly washed.</p>
First Aid Facilities	<p>If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.</p> <p>Seek medical advice immediately.</p> <p>If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.</p>
Advice to Doctor	<p>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.</p> <p>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.</p> <p>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 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.</p>
First Aid	<p>OBTAIN IMMEDIATE MEDICAL ATTENTION.</p> <p>SPEED IS ESSENTIAL.</p>

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.
Special Protective Equipment for fire fighters	If involved in a fire, the dehydrated components may emit oxides of carbon, oxides of nitrogen and hydrogen chloride.
Hazchem Code	Breathable air apparatus must be worn when fighting a fire in which this product is involved.
	2X

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal	<p>Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).</p> <p>Collect spilled material and waste in sealable open-top type containers for disposal.</p> <p>On-site disposal of concentrate is not acceptable.</p> <p>If possible, ring 1800 033 498 for specialist advice.</p>
Personal Protection	<p>Wear specified PPE to decontaminate personnel and equipment, or to handle broken packages or containers.</p> <p>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.</p>

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Clean-up Methods - Large Spillages	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.
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.
Conditions for Safe Storage	For use by licensed pest control operators or primary producers only. 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.
Tank Cleaning	For use by licensed pest-control operators or primary producers only. 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

National Exposure Standards	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 ³ . Safe Work Australia has set the following exposure standard for amitrole : TLV (TWA) 0.2 mg/m ³ , STEL -.
Engineering Controls	No special requirements. Ensure workplace is well ventilated. 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.
Respiratory Protection	If exposure to vapour, spray or dusts from dried product is expected, wear a high efficiency particulate respirator covering nose and mouth.
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 face shield or goggles. Re-entry period: Do not enter treated area until spray has dried.
Hygiene Measures	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. Avoid contacting vegetation wet with spray, but if necessary to do so, wear waterproof footwear and waterproof protective clothing and gloves. 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	Clear dark green liquid
Odour	Obnoxious odour
Boiling Point	~100°C
Solubility in Water	Soluble in water.
Specific Gravity	1.11

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pH Value	5.0 - 6.5
Vapour Pressure	<1 x 10 ⁻² mPa (25°C, paraquat dichloride)
Octanol/Water Partition Coefficient	Kow Log P is -4.5 (20°C)
Flammability	Non combustibile material.

10. STABILITY AND REACTIVITY

Chemical Stability Paraquat is inactivated by adsorption onto clay.

Incompatible Materials Paraquat is highly corrosive to most metals, e.g. aluminium, zinc and iron.

Hazardous Reactions Keep away from strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

Inhalation Highly toxic if inhaled. 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/m³) and should not be handled without full respiratory protection. 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.

Ingestion TREATMENT OF PARAQUAT POISONING MUST COMMENCE AS RAPIDLY AS POSSIBLE. Rapid treatment is essential. The immediate effects of poisoning depend on the dose of paraquat absorbed into the blood. Mild poisoning occurs at <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 >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.

Skin 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.

Eye 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.

Chronic Effects Chronic Exposure:
For Amitrole: Based on the results of animal studies, liver and thyroid effects may result. In prolonged feeding studies with animals, effects on the thyroid have been documented, including the formation of tumors. Epidemiological studies of workers using amitrole in the field have been inconclusive with respect to an increase in the incidence of a specific cancer. Refer carcinogenicity entry below.

Reproductive Toxicity Data indicates no reproductive effects.

Carcinogenicity Worksafe Australia has classified amitrole in the occupational environment as a Carcinogen Category 3 substance. This means the the substance is not classifiable as to carcinogenicity to humans. IARC (International Agency for Research on Cancer) has determined that the mechanism in rats and mice is unlikely to occur in humans; hence amitrole has been classified by IARC as Cat 3, not classifiable as to carcinogenicity to humans.

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Acute Toxicity - Oral	LD50 (rat) 129 - 157 mg/kg for paraquat dichloride LD50 (guinea pig) 30 - 58 mg/kg LD50 (rat) 1100 - 24600 mg/kg for amitrole
Acute Toxicity - Dermal	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.
Acute Toxicity - Inhalation	LC50 (rat) (4hr) 0.5 - 1.5 µg/l for paraquat dichloride
Eye Irritation	The product is an eye irritant.
Skin Irritation	The product is a skin irritant.
Skin Sensitisation	Product is not a skin sensitiser.
Other Information	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: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', June 2012). ADI for amitrole is 0.0003 mg/kg/day, NOEL 0.025 mg/kg/day.

12. ECOLOGICAL INFORMATION

Persistence / Degradability	Paraquat is rapidly absorbed and inactivated by contact with soil. There is evidence of photodegradation in air.
Known Harmful Effects on the Environment	The product is a marine pollutant for sea transport.
Other Precautions	Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.
Environ. Protection	Spray drift can cause damage, read the label for more information.
Acute Toxicity - Fish	LC50 (96hr) for rainbow trout is 15 mg/l for paraquat dichloride Amitrole is not toxic to fish.
Acute Toxicity - Daphnia	EC50 (48hr) for daphnia is 1.2 mg/l for paraquat dichloride.
Acute Toxicity - Algae	ECr50 (72hr) for algae is 0.32 mg/l.
Acute Toxicity - Other Organisms	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

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 rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. 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. 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.



Material Safety Data Sheet

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Empty containers and product should not be burnt.
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 3016
Proper Shipping Name BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC - (Contains Paraquat)
DG Class 6.1
Hazchem Code 2X
Packaging Method 3.8.6.1
Packing Group III
Storage and Transport EPG Number Considered dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
6B1
IERG Number 34
UN Number (Sea Transport) 3016
IMO Class/Packing Group Class 6.1; Packing Group III
IMO Marine Pollutant Marine Pollutant
IMO Proper Shipping Name BIPYRIDILIUM PESTICIDES, LIQUID, TOXIC, N.O.S.
(contains paraquat)

15. REGULATORY INFORMATION

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
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category Very Toxic
Other Information 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 MSDS Revised 28/03/2013
This SDS replaces document dated February 2013.
Contact Person/Point Revisions Highlighted Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498
The MSDS was reviewed. Various changes were made to the information.
Section 12 and 14. Product is a marine pollutant.
...End Of MSDS...

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