



MSDS OF NAADCO PARAQUAT 250 HERBICIDE

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name	NAADCO PARAQUAT 250 HERBICIDE
Supplier	New Australia Agricultural Development Company Pty Limited
Address	Rear 150-154 Parramatta Rd, Auburn, NSW, 2144
Telephone	+61 2 9188 5752
Fax	+61 2 9188 5752
Website	www.naadco.com.au

2. HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of Safe Work Australia.

Classified as a Dangerous Good according to the ADG Code.

Signal word (CLP)	:	Danger
Hazardous ingredients	:	Paraquat
Hazard statements (CLP)	:	
H290 May be corrosive to metals.		
H302 Harmful if swallowed.		
H311 Toxic in contact with skin.		
H315 Causes skin irritation.		
H318 Causes serious eye irritation.		
H330 Fatal if inhaled.		
H335 May cause respiratory irritation.		
H372 Causes damage to organs through prolonged or repeated exposure.		
H410 Very toxic to aquatic life with long lasting effects. Precautionary statements (CLP) :		

Prevention:

- P234 Keep only in original packaging.
- P260 Do not breathe mist, vapours or spray.
- P264 Wash hands, arms and face thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P284 Wear respiratory protection.

Response:



NEW AUSTRALIA AGRICULTURAL DEVELOPMENT COMPANY PTY LIMITED

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P320 Specific treatment is urgent (see Safety Directions on Product label).
P330 Rinse mouth.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
P390 Absorb spillage to prevent material damage.
P391 Collect spillage.

Storage:

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P406 Store in corrosion resistant container with a resistant inner liner.

Disposal:

- P501 Dispose of contents/container in accordance with national regulations.

Pictograms:



3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
Paraquat	1910-42-5	250g/L
Odouriser (stanching agent)		<1%
Other ingredients (including water) determined not to be hazardous		Balance

4. FIRST AID MEASURES

FIRST AID

RAPID TREATMENT IS ESSENTIAL. OBTAIN IMMEDIATE MEDICAL ATTENTION.



- Ingestion:** Go to a doctor or hospital IMMEDIATELY. If possible, phone ahead to alert to the situation so treatment is not delayed on arrival. If more than 15 minutes from a hospital induce vomiting (if this has not already occurred) by tickling back of throat with a clean, blunt instrument (eg spoon handle). **DO NOT delay the start of treatment.**
- Eye contact:** Immediately hold eyes open and flood with copious quantities of clean water for at least 20 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre. If splashed with the concentrate, patients should be reviewed after 24 hours. Referral to an ophthalmologist should be considered.
- Skin contact:** Immediately take off all contaminated clothing. Wash skin immediately with water followed by soap and water. If skin is damaged, the paraquat can be absorbed through the skin. Seek medical advice. Contaminated clothing should be laundered before reuse.
- Inhalation:** Remove from exposure. If vapour has been inhaled, lie patient down comfortably and keep warm. Monitor closely and seek medical attention if effects persist. (Vapour consists of stenching agent rather than paraquat). If spray mist has been inhaled, immediately seek medical attention. Monitor patient closely and apply resuscitation or oxygen if available. (Spray mist contains paraquat).
- Advice to Doctor:** Rapid treatment is essential. Refer to "Paraquat Poisoning. A Practical Guide to Diagnosis, First Aid and Hospital Treatment" (2016, Revision 8 or later edition) - available at most major treatment hospitals and Poisons Information Centres.
- Treatment:** Wash out stomach and test urine and gastric aspirate (if clear) for presence of paraquat. Give up to 1 litre of 15% aqueous suspension of Fuller's Earth orally or via gastric tube, together with a suitable purgative (200 mL of an aqueous solution of mannitol). Repeat administration of absorbent plus purgative until absorbent is seen in stools. This should normally take between 4 and 6 hours after the start of treatment.

Do not use supplemental oxygen unless serious hypoxia is present.

With the possibility of late onset conjunctival ulceration it is advised that patients with paraquat eye injuries are reviewed the day after first presentation. At the review, consideration should be given to treating the eyes with a local antibiotic preparation to prevent secondary infection. Local treatment with a suitable steroid will aid resolution of granulation tissue. Corneal oedema, which may persist for up to 3 - 4 weeks, may cause blurring of vision.

5. FIRE FIGHTING MEASURES

Specific Hazard: Not combustible.

Extinguishing media: Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained. Contain all runoff.

Hazards from combustion products: Not combustible as formulated, but residue left after evaporation of water may burn. Fumes are toxic. Firefighters **must** wear full protective equipment and self-contained breathing apparatus if risk to of exposure to vapour or smoke.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. **DO NOT** breathe smoke or



vapours generated.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures: In case of spillage it is important to take all steps necessary to:

- Avoid eye and skin contact.
- Avoid contamination of waterways and drains.

Evacuate unprotected and unnecessary personnel from area of spill. Keep all bystanders away. Wear full length clothing and elbow length PVC gloves and face shield or goggles to prevent skin and eye contamination. Re-position any leaking containers so as to minimise further leakage.

Wear protective equipment to prevent skin/eye contamination. In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay, cat litter or material such as vermiculite and dispose of waste as per the requirements of Local or State Waste Management Authorities. Wear full prescribed protective clothing and equipment. Keep out animals and unprotected persons. If product on skin, immediately wash area with soap and water. If clothing becomes contaminated with product remove clothing immediately. If product in eyes, wash it out immediately with water.

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

Precautions for Safe Handling: Very dangerous, particularly the concentrate. Product is poisonous if swallowed. Will irritate the nose, throat and skin. Attacks the eyes, protect the eyes while using. Avoid contact with eyes, skin and clothing. When opening the container and preparing product for use wear:

- Elbow length PVC gloves
- Face shield or goggles

7. HANDLING AND STORAGE

If product on skin, immediately wash area with soap and water. If clothing becomes contaminated with product remove clothing immediately. If product in eyes, wash it out immediately with water. Avoid contact with spray mist. DO NOT inhale spray mist. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and face shield or goggles and contaminated clothing.

SPRAY APPLICATION

- DO NOT work in spray mist.
- DO NOT continue to use if skin irritation or nose bleed occurs. This may be caused by over 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.

- 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 (Standard 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.

Conditions for Safe Storage: KEEP OUT OF REACH OF CHILDREN. This product is a Schedule 7 Poison (S7) and must be stored, transported and sold in accordance with the relevant Health Department regulations. This product is classified as a Dangerous Good. Store in the closed, original container in a dry, cool, well-ventilated locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store for prolonged periods in direct sunlight. DO NOT repack or use container for any other purpose. No smoking, eating or drinking should be allowed where material is used or stored.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

Exposure guidelines have been established for this product by Safe Work Australia.

Atmospheric Contaminant	Exposure Standard (Time-Weight Average)	STEL(mg/m ³)
Paraquat dichloride (respirable sizes)	0.1 mg/m ³	Not set

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Use in ventilated areas adequate to keep exposure below the TWA. Keep containers closed when not in use. 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.

Personal Protective Equipment (PPE):

When opening the container and preparing product for use wear elbow length PVC gloves and face shield or goggles. 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 (Standard Association of Australia). Further advice on safety equipment should be obtained from a safety equipment manufacturer.

After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles, contaminated clothing and respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Appearance	Clear blue coloured
Boiling point	No data.
Freezing point	No data.
Specific Gravity	Approximately 1.1.
Solubility in Water	Soluble in water.
pH	Slightly acidic.
Flammability	Not flammable.
Flashpoint (°C)	Not flammable.
Poisons Schedule	S7.
Formulation type	Soluble Concentrate.

10. STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Do not store for prolonged periods in direct sunlight.

Incompatible materials: Paraquat is highly corrosive to most metals eg. Aluminium, zinc, iron.

Hazardous decomposition products Should not decompose unless heated further after reaching complete dryness. May then produce carbon monoxide, nitrogen oxides, hydrogen cyanide and/or hydrogen chloride.

Hazardous reactions: Keep away from strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No specific data is available for this product as no toxicity tests have been conducted on this product.

Information

presented is our best judgement based on similar products and/or individual components. As with all products for which

limited data is available, caution must be exercised through the use of protective equipment and handling procedures to

minimise exposure.

Potential Health Effects:

ACUTE EFFECTS

Swallowed: CAN KILL IF INGESTED. Acute LD50 (paraquat) 150 mg/kg (rat), ~ 30 mg/kg man. About 10 mL of product may be lethal. Kidney and liver damage may occur after 2-3 days. Lung fibrosis after 1-3 weeks may cause death. Higher doses may cause multi-organ failure and death within 2-3 days.

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. Ulceration of the lips, mouth, throat and intestine may follow within 24 - 48 hours. 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.

Eye: Eye irritation may be delayed. May lead to ulceration of corneal and conjunctival epithelium giving rise to secondary infection. Loss of corneal and conjunctival epithelium and even mild iritis can occur with the risk of secondary infection and consequent residual corneal scarring. Corneal oedema may persist for up to 3-4 weeks with blurring of vision.

Skin: Contact with 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. Broken skin removes the barrier and paraquat may be absorbed with effects as outlined above under "Swallowed". Modelling predicted for intact human skin and diluted solutions that systemic toxicity would be unlikely, but the risk increased significantly with damaged skin or concentrated solutions. LD50 (rat) > 2000 mg/kg (paraquat dichloride).

Inhaled: Highly toxic if inhaled. However, unlikely to be hazardous by inhalation because of low vapour pressure of the material at ambient temperature. 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.

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. LC50 = 0.5 - 1.5 µg/L/4hrs (paraquat dichloride).

Long Term Exposure:

Studies in animals have shown that repeated doses of paraquat do not produce carcinogenic nor teratogenic effects or adverse reproductive effects. The dietary no effect level in the rat was 25 ppm of paraquat over 2 years.

12. ECOLOGICAL AND ECOTOXICOLOGICAL INFORMATION



NEW AUSTRALIA AGRICULTURAL DEVELOPMENT COMPANY PTY LIMITED

Environmental Toxicology: No data is available on this product. The active ingredient, paraquat is toxic to aquatic organisms. 96hr LC50 (rainbow trout) is 55 mg/L (static). The 96 hr LC50 (brown trout) is 2.5 - 13 mg/L. LC50 72 hours for green algae is 0.34 mg/L. Paraquat is highly toxic to birds. The oral LD50 for hens is 262 - 380 mg/kg; Mallard duck LD50 = 199 mg/kg; Bobwhite quail LD50 = 175 mg/kg. Not toxic to bees. LD50 = 36 µg/bee.

Environmental Fate: Paraquat is rapidly absorbed and deactivated by soil. There is no mobility in soil or ground water. There is evidence of photodegradation in water and plants.

Keep domestic pets and poultry away from treated areas. This formulation should not be applied on or near water which is used for livestock watering. Do not contaminate dams, waterways or sewers with this product or the containers which have held this product.

13. DISPOSAL CONSIDERATIONS

Spills and Disposal: Persons involved in cleanup require complete skin protection - see Section 8. In case of spillage, contain and absorb spilled material with absorbent material such as clay, sand or cat litter and dispose of waste as indicated below or in accordance to the Australian Standard 2507- Storage and Handling of Pesticides. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. To decontaminate spill area, tools and equipment, wash with detergent and water and add the solution to the drums of wastes already collected and label contents. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

Disposal of empty containers: Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. 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 to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm 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.

14. TRANSPORT INFORMATION

Transport: This product is classified as a Dangerous Goods under the Australian Code for the Transport of Dangerous Goods by Road and Rail, the International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA). UN 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (25% Paraquat). Hazchem 2X. Hazard Identification number (HIN) 86.

UN No: 2922

Class 8, Sub Class 6.1

Packing group: III

This product is a Schedule 7 Poison (S7) and must be stored, transported and sold in accordance with the relevant Health Department regulations.



NEW AUSTRALIA AGRICULTURAL DEVELOPMENT COMPANY PTY LIMITED

15. REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.
This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA)

16. OTHER INFORMATION

Version 1.0

Revision Date: 2024.05.08

The information contained in this MSDS is provided in good faith and is believed to be correct and the date hereof. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the works place including in conjunction with other products.

Please read all labels carefully before using product.