

# MATERIAL SAFETY DATA SHEET

Date of Issue: February 28,2020



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

<b>Product name</b>	NAADCO CLODINAFOP240 Herbicide
<b>Other names</b>	None
<b>Chemical group</b>	Group A Herbicide
<b>Recommended use</b>	Herbicide for agricultural use
<b>Formulation</b>	Emulsifiable concentrate
<b>Supplier</b>	New Australia Agricultural Development Company Pty Ltd
<b>Address</b>	Level 13, 99 Elizabeth St, Sydney NSW 2000
<b>Telephone</b>	(02) 8090 8090
<b>Fax</b>	(02) 8090 8092
<b>Website</b>	<a href="http://www.naadco.com.au">www.naadco.com.au</a>

## 2. HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of the Safe Work Australia.**

**Not Classified as Dangerous Good according to the ADG Code.**

**Combustible Liquid(C1)**

<b>Risk phrases</b>	R36/38: Irritating to eyes and skin. R22: Harmful ifswallowed. R43: May cause sensitisation by skincontact. R65: Harmful: may cause lung damage ifswallowed. R66: Repeated exposure may cause skin dryness and cracking. R67: Vapours may cause drowsiness anddizziness.
<b>Safety phrases</b>	S13: Keep away from food, drink, and animal feedingstuffs. S2: Keep out of reach of children. S24/25: Avoid contact with skin andeyes. S36/37/39: Wear suitable protective clothing, gloves and eye/faceprotection.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

<b>Ingredients</b>	<b>CAS Number</b>	<b>Concentration</b>
Clodinafop-Propargyl	105512-06-9	240 g/L
Cloquintocet-Mexly	99607-70-2	60 g/L
N-Methyl pyrrolidone	872-50-4	100 g/L
Liquid hydrocarbon	64742-94-5	575 g/L
Other ingredients (considered non-hazardous)		balance

## 4. FIRST AID MEASURES

**If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Material Safety Data Sheet to the doctor.**

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<b>Inhalation</b>	If inhaled remove to fresh air and keep at rest, contact a Poisons Information Centre or a doctor.
<b>Skin contact</b>	Carefully remove contaminated clothing. Wash affected areas with soap and water. Seek medical advice.
<b>Eye contact</b>	Quickly and gently blot or brush product away. Flush the contaminated eye(s) with lukewarm, gently flowing water until the product is removed or until irritation has ceased, while holding the eyelid(s) open. Obtain medical advice if irritation becomes painful or lasts more than a few minutes.
<b>Ingestion</b>	First aid is not generally required. If in doubt contact a Poisons Information Centre or doctor.
<b>First Aid Facilities</b>	Ensure washing facilities are available.
<b>Medical attention</b>	There is no specific antidote available. Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

**Flash point:** Not flammable.

**Specific Hazard:** This product is a C1 combustible liquid. Eruption of containers is likely if confined at high temperatures. Cool intact containers with water to reduce drum pressure.

**Extinguishing media:** Foam, CO2 or dry chemical. Soft stream water fog or fine water spray if no alternatives. Contain all runoff.

**Hazards from combustion products:** Product will decompose when burnt and will emit toxic and noxious fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk to of exposure to vapour or smoke.

**Precautions for fire-fighters and special protective equipment:** Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated.

## 6. ACCIDENTAL RELEASE MEASURES

**Emergency procedures:** Isolate and post spill area. Wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length butyl rubber gloves and face shield or goggles. In the case of spillage, stop leak if safe to do so, and contain spill. Absorb spilled material with absorbent material such as sand, clay or cat litter. Vacuum, shovel or pump spilled material into an approved container and dispose of waste as indicated in section 13. Keep out unprotected persons and animals. Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

**Material and methods for containment and cleanup procedures:** 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. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

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## 7. HANDLING AND STORAGE

- Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.
- Storage:** DO NOT store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed original container, in a cool well ventilated area, out of direct sunlight. Store in a room or place away from children, animals, food, feed stuffs, seed and fertilizers. This product is classified as a C1 (Combustible Liquid) for the purpose of storage and handling, in accordance with the requirements of AS 1940. This product is a Schedule 6 Poison (S6) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure standards:

Exposure guidelines have not been established for this product by Safe Work Australia. However, one of the ingredients has the following Safe Work Australia guideline:

Atmospheric Contaminant	Exposure Standard (TWA)	STEL (mg/m <sup>3</sup> )
N-methyl pyrrolidone (Skin*)	1.03 mg/m <sup>3</sup> (25 ppm)	309 mg/m <sup>3</sup> (75 ppm)

TWA = Time-weight Average    STEL = Short term Exposure Limit

\* The 'skin' notation refers to the potential for dermal absorption of the material including mucous membranes and the eyes by contact with vapours or direct skin contact.

**Biological limit:** No biological limit allocated.

**Engineering controls:** Use in ventilated areas only. Use local exhaust at all process locations. Ventilate all transport vehicles prior to unloading. Keep containers closed when not in use.

### Personal Protective equipment (PPE):

**General:** When opening the container, preparing spray wear and using the product wear cotton overalls buttoned to the neck and wrist (or equivalent clothing), a washable hat, elbow-length butyl rubber gloves and face shield or goggles. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. 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, face shield or goggles and contaminated clothing.

**Respiratory Protection:** Generally, not required. Use of a respirator may be required in certain circumstances. If an inhalation risk exists, wear a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (Australian Standards).

**Personal Hygiene:** Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. Shower at the end of the workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Yellow to light brown liquid.

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<b>Boiling Point:</b>	No data is available.
<b>Solubility in Water:</b>	Forms an emulsion in water.
<b>Specific Gravity:</b>	Approximately 1.1
<b>Vapour Pressure:</b>	No data is available.
<b>Octanol/Water:</b>	No data is available.
<b>Partition Coefficient:</b>	No data is available.
<b>Flash Point:</b>	Approximately 83°C.
<b>Flammability:</b>	Combustible liquid C1.
<b>Formulation type:</b>	Emulsifiable 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:** Strong acids, strong bases and strong oxidizing agents.

**Hazardous decomposition products:** Product will decompose when burnt and will emit toxic and noxious fumes.

**Hazardous reactions:** No special considerations. Will not polymerize.

## 11. TOXICOLOGICAL INFORMATION

**Inhalation** High vapor concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects.

**Eye contact** the concentrate will cause severe irritation and possible damage unless washed off immediately.

### Long Term Exposure:

**Clodinafop-propargyl technical** has been extensively tested on laboratory mammals and in test-tube systems. No evidence of mutagenic, teratogenic or reproductive effects was obtained. Clodinafop-propargyl technical induced liver toxicity and benign and malignant liver tumours in mice fed high daily doses over their lifetime. Rats fed high doses showed mild liver toxicity but did not develop tumours while no liver effects were observed for dogs fed high doses. The liver tumour finding occurring at high doses is believed due to clodinafop-propargyl inducing proliferative effects genetically pre-existing in mice and has no relevance to humans because the cellular changes which underlie it are rodent-specific and have been shown experimentally not to occur in primates.

**Cloquintocet-mexyl technical** has been extensively tested and no evidence of mutagenic, carcinogenic, teratogenic, or reproductive effects was obtained.

The **aromatic hydrocarbon mixture** may cause central nervous system depression and narcosis.

## 12. ECOLOGICAL AND ECOTOXICOLOGICAL INFORMATION

**Environmental Toxicology:** No information is available for the product. The following information refers to the active ingredients. Clodinafop-propargyl technical is practically non-toxic to birds, crustaceans, earthworms, soil microorganisms and bees, and highly toxic to fish with LC<sub>50</sub> (96 h) = 0.4 mg/L for rainbow trout. The formulated product is moderately toxic to fish and aquatic invertebrates LC<sub>50</sub> (96 h) 4.9 mg/L for trout. DO NOT contaminate streams, rivers or water courses.

Cloquintocet-mexyl technical is practically non-toxic to birds, fish, crustaceans, earthworms, soil microorganisms

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and bees.

**Environmental Fate:** Average half life of Clodinafop-propargyl in the field is 0.8 days. Average half life of Cloquintocet-mexyl in the field is 5 days.

## 13. DISPOSAL CONSIDERATIONS

**Spills & Disposal:** Isolate and post spill area. Wear PVC or rubber apron, overalls, elbow-length PVC gloves and face shield. Large spills should be dyked or covered to prevent dispersal. Keep out animals and unprotected persons. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities.

**Containers:** Triple or preferably pressure rinse containers before disposal. Add rinsings to tank mix. Do not dispose of undiluted chemicals on-site. If not recycling, break, crush, or puncture and deliver empty packaging for appropriate disposal 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 Information:**It is good practice to separate this product from food, food related materials, animal feedstuffs, seed or fertilisers during transport.

**Road & Rail Transport:** This product is exempt from classification as a Dangerous Good in packs less than 3,000 kg or litres under the Australian Code for the Transport of Dangerous Goods by Road and Rail. (See special provision AU01). For bulk shipments this product is a class 9, UN 3082.

**Marine and Air Transport:** This product is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-

UN 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains 24% Clodinafop-Propargyl). Hazchem code •3Z. Hazard Identification Number (HIN) 90.

## 15. REGULATORY INFORMATION

Classified as a hazardous substance according to criteria of the Safe Work Australia. (Xn - harmful, Xi - irritant).

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a schedule 6 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 67810.

Product is not classified as a Dangerous Good according to the ADG Code (7<sup>th</sup> Ed).

Requirements concerning special training:

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Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

## 16. OTHER INFORMATION

Version 1.0

Revision Date: 2020.02.28

Key to abbreviations and acronyms used in this MSDS:

ADG Code: Australian Dangerous Goods Code (for the transport of Dangerous Goods by Road and Rail).

ASCC: Australian Safety & Compensation Council (formally known as the National Occupational Health & Safety Commission (NOHSC)).

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

Lacrimation: The production, secretion, and shedding of tears.

Lavage: A general term referring to cleaning or rinsing.

NOHSC: National Occupational Health and Safety Commission.

Pneumonitis: A general term that refers to inflammation of lung tissue.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus.

TWA: The Time Weighted Average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

Safe Work Australia:

Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

### References

1. "Search Hazardous Substances". Safe Work Australia Council website. (2013).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Standard for the Uniform Scheduling of Medicines and Poisons. No. 3. Medicines and Poisons Scheduling Secretariat. June 2012.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Please read all labels carefully before using product.