

Safety Data Sheet

according to WHS Regulations

Printing date 24.08.2020

Revision: 24.08.2020

1 Identification

Product Name: RELYON CLODINAFOP 240EC SELECTIVE HERBICIDE

Other Means of Identification: Mixture

Recommended Use of the Chemical and Restriction on Use: Agricultural herbicide

Details of Manufacturer or Importer:

Nutrien Ag Solutions
Level 5, Building A, 26 Talavera Road,
Macquarie Park
NSW 2113

Phone Number: 02 9889 5400

Emergency telephone number: 1800 44 88 92

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)



health hazard

Toxic To Reproduction 1B
STOT RE 2

H360 May damage fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.



environment

Aquatic Chronic 2

H411 Toxic to aquatic life with long lasting effects.



Skin Corrosion/Irritation 2

H315 Causes skin irritation.

Serious Eye Damage/Irritation 2A

H319 Causes serious eye irritation.

Skin Sensitisation 1

H317 May cause an allergic skin reaction.

Flammable Liquids 4

H227 Combustible liquid.

Aquatic Acute 2

H401 Toxic to aquatic life.

Signal Word Danger

Hazard Statements

H227 Combustible liquid.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H360 May damage fertility or the unborn child.

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H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from flames and hot surfaces. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see on this label).
P314	Get medical advice/attention if you feel unwell.
P362+P364	Take off contaminated clothing and wash it before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use for extinction: CO ₂ , powder or water spray.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.

Hazardous Components:		
CAS: 105512-06-9	Clodinafop-propargyl (ISO)	24%
	☠ STOT RE 2, H373; ☠ Aquatic Chronic 1, H410; ☠ Acute Toxicity (Oral) 4, H302; ☠ Skin Sensitisation 1, H317	
CAS: 872-50-4	N-methyl-2-pyrrolidone	10%
	☠ Toxic To Reproduction 1B, H360; ☠ Skin Corrosion/Irritation 2, H315; ☠ Serious Eye Damage/Irritation 2A, H319; ☠ STOT SE 3, H335; ☠ Flammable Liquids 4, H227	
CAS: 99607-70-2	Cloquintocet mexyl	6%
	☠ Aquatic Acute 1, H400; ☠ Aquatic Chronic 1, H410; ☠ Skin Sensitisation 1, H317	

Additional information: Liquid Hydrocarbon Solvent, CAS No. not supplied: 50.7%

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

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Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. Never give anything by mouth to an unconscious person. Seek medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause respiratory irritation.

Skin Contact: Causes skin irritation, itchiness and reddening. May cause an allergic skin reaction, skin rash and inflammation.

Eye Contact: Causes serious eye irritation, stinging, reddening and watering.

Ingestion: May cause irritation, reddening and burning sensation of the mouth and throat.

5 Fire Fighting Measures

Suitable Extinguishing Media: Use CO₂, powder or water spray.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, hydrogen chloride, other chlorine compounds and smoke.

Product is combustible.

Closed containers may explode when exposed to extreme heat. Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Minimise run-off from fire fighting entering drains or water courses.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

Environmental Precautions: In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so. Absorb large spills with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

7 Handling and Storage

Precautions for Safe Handling:

Obtain special instructions before use. Do not handle until all safety precautions are read and understood.

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet.

Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains

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and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep in original container, tightly closed when not in use. Protect from heat, sparks, open flames, hot surfaces and direct sunlight. Keep away from strong oxidising agents, strong acids and strong bases.

8 Exposure Controls and Personal Protection

Exposure Standards:**CAS: 872-50-4 N-methyl-2-pyrrolidone**

NES	STEL: 309 mg/m ³ , 75 ppm TWA: 103 mg/m ³ , 25 ppm Sk
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Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour below occupational exposure standards.

Respiratory Protection:

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

PVC or rubber gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 Physical and Chemical Properties

Appearance:

Form:	Liquid
Colour:	Light to dark brown coloured
Odour:	Aromatic solvent odour
Odour Threshold:	No information available
pH-Value:	4-8 (expected)
Melting point/freezing point:	<-10 °C
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	>70 °C
Flammability:	Product is a combustible liquid.
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available

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Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Relative Density at 20 °C:	1.06-1.10 (expected)
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Emulsifies into water.
Viscosity:	No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions: Hazardous polymerisation will not occur.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents, strong acids and strong bases.

Hazardous Decomposition Products:

Oxides of carbon, nitrogen, nitrogen oxides, other nitrogen compounds, hydrogen cyanide, hydrogen chloride, other chlorine compounds and smoke.

11 Toxicological Information

Toxicity:

LD50/LC50 Values Relevant for Classification:

CAS: 99607-70-2 Cloquintocet mexyl

Oral	LD50	>2,000 mg/kg (rat)
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Dermal	LD50	>2,000 ml/kg (rat)
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CAS: 872-50-4 N-methyl-2-pyrrolidone

Oral	LD50	3,914 mg/kg (rat)
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Dermal	LD50	8,000 mg/kg (rabbit)
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Acute Health Effects

Inhalation: May cause respiratory irritation.

Skin:

Causes skin irritation, itchiness and reddening. May cause an allergic skin reaction, skin rash and inflammation.

Eye: Causes serious eye irritation, stinging, reddening and watering.

Ingestion: May cause irritation, reddening and burning sensation of the mouth and throat.

Skin Corrosion / Irritation: Causes skin irritation.

Serious Eye Damage / Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitisation: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: This product does NOT contain any IARC listed chemicals.

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Reproductive Toxicity:

Suspected of damaging fertility or the unborn child.

1-methyl-2-pyrrolidone is classified by Safe Work Australia as Toxic to Reproduction Category 2.

Specific Target Organ Toxicity (STOT) - Single Exposure:

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available**Additional toxicological information:**

The Australian Acceptable Daily Intake (ADI) for clodinafop-propargyl for a human is 0.004 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.37 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species.

The Australian Acceptable Daily Intake (ADI) for cloquintocet-mexyl for a human is 0.04 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 4.3 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: Australian Pesticides and Veterinary Medicines Authority, 'Acceptable Daily Intakes for Agricultural and Veterinary Chemicals', August 2020).

12 Ecological Information

Ecotoxicity:

Clodinafop-propargyl:

LD50 >100 µg/Bee

LC50 /8 day dietary >5200 ppm (Bobwhite quail)

LC50 /8 day dietary >5200 ppm (Mallard duck)

Aquatic toxicity:

Toxic to aquatic life with long lasting effects.

CAS: 105512-06-9 Clodinafop-propargyl (ISO)

EC50/96 h >3.6 mg/l (scenedesmus subspicatus)

LC50/96 h 0.46 mg/l (carp)

0.39 mg/l (rainbow trout)

LC50/48 h >60 mg/l (daphnia)

Persistence and Degradability: Not easily biodegradable, may accumulate in soil or water.**Bioaccumulative Potential:** No information available**Mobility in Soil:** No information available**Other adverse effects:** No information available

13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

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Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

14 Transport Information

UN Number Not regulated

Proper Shipping Name Not regulated

Dangerous Goods Class Not regulated

Packing Group: Not regulated

15 Regulatory Information**Australian Inventory of Chemical Substances:**

CAS: 105512-06-9	Clodinafop-propargyl (ISO)
CAS: 872-50-4	N-methyl-2-pyrrolidone
CAS: 99607-70-2	Cloquintocet mexyl

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 6

16 Other Information**Date of Preparation or Last Revision:** 24.08.2020**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au**Abbreviations and acronyms:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 IARC: International Agency for Research on Cancer
 STEL: Short Term Exposure Limit
 TWA: Time Weighted Average
 NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)
 Flammable Liquids 4: Flammable liquids – Category 4
 Acute Toxicity (Oral) 4: Acute toxicity - oral – Category 4
 Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2
 Serious Eye Damage/Irritation 2A: Serious eye damage/eye irritation – Category 2A
 Skin Sensitisation 1: Skin sensitisation, Hazard Category 1
 Toxic To Reproduction 1B: Reproductive toxicity – Category 1B
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1
 Aquatic Acute 2: Hazardous to the aquatic environment, short-term (Acute). Category 2
 Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1
 Aquatic Chronic 2: Hazardous to the aquatic environment, long-term (Chronic). Category 2

Data altered compared to the previous version:

Section 1: Details of Manufacturer or Importer, Emergency Phone Number, Section 4: Eye Contact, Ingestion, Section 5: Suitable Extinguishing Material, Specific Hazards Arising from the Chemical, Section 6: Methods and Materials for Containment and Cleaning Up, Section 7: Precautions for Safe Handling, Section 9: Flammability, Viscosity, Section 10: Hazardous Decomposition Products, Section 11: Respiratory or Skin Sensitisation, Aspiration Hazard, Additional toxicological information, Section 12: Aquatic Toxicity, Section 14: UN Number, Proper Shipping Name, Dangerous Goods Class, Packing Group

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Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - May 2018"

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