



Safety Data Sheet

In accordance with Safe Work Australia

CHOICE CLEODIM 240 HERBICIDE

1. Product identifier & identity for the chemical

Product Identifier	Cleodim 240 Herbicide
Active Constituent	240g/l Clethodim Solvent: 663g/L Liquid Hydrocarbon
Other means of Identification	Agricultural herbicide. GROUP A HERBICIDE Grow Choice product code number: 2007 AVPMA registered number: 61532
Recommended use of the chemical and restrictions on due	For the control of certain grass weeds: in beetroot; cabbage; canola; celery; chickpeas; cotton; faba beans; field peas; forestry; lentils; lettuce; lupins; mung beans; non-bearing fruit trees; onions; ornamentals; peanuts; potatoes and soy beans as specified in the Directions for Use Table.
Suppliers name, address and phone number:	Grow Choice Pty Ltd 113 Fitzroy Street TAMWORTH NSW 2340 Phone: 02 6766 3979 1800 817 676 Fax: 02 6766 2922 Email: admin@growchoice.com.au
Emergency phone number:	In Case Of Emergency Dial 000
Poisons Information Centre	Phone: 13 11 26 and speak to a Poisons Information Specialist. Fax: +61 2 9845 3597 http://www.chw.edu.au/poisons/contact.htm

2. Hazard Identification

- Classified as **HAZARDOUS** in accordance with the *Approved Criteria for Classifying Hazardous Substances* [NOHSC: 1008(2004) 3^d Edition and the Globally Harmonized System of Classification and Labelling of Chemicals (the GHS).
- Considered non-dangerous for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)
- Considered non-dangerous for transport by sea and air in accordance with the IMDG Code 37-14 (refer Section 14)

2.1 Classification of the hazardous chemical Aspiration hazard - category 1

2.2 Label Elements

Signal Word	DANGER	
GHS Symbols		Health Hazard
General Precautionary Statements.	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use	
Hazard Statements	H304	May be fatal if swallowed and enters airways.
Precautionary Statements		
Response	P301 + P310 P331	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
Storage	P405	Store locked up
Disposal	P501	Dispose of contents and container in accordance with local, regional and national regulations.

3. Composition/information on ingredients

Chemical ingredients:	Component	CAS No	Concentration %
CAS number and other unique identifiers:	Clethodim	99129-21-2	24
Concentration of ingredients	Liquid Hydrocarbon	64742-94-5	> 63 - <64
	Other ingredients, including water	(non hazardous)	balance

4. First Aid Measures (continued on page 2)

In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and speak to a Poisons Information Specialist. Take this SDS and or DFU/Label with you or when calling the Poisons Information Centre.

Description of necessary first aid measures

Swallow If swallowed and if more than 15 minutes from a hospital **DO NOT induce vomiting**. Seek immediate medical advice,

Eye:	If product gets in eyes, wash it out immediately with water for at least 15 minutes. . Seek medical attention.
Skin:	Remove contaminated clothing and wash affected areas thoroughly with soap and water.
Inhaled	Move affected person to fresh air and keep at rest until recovered. Seek medical advice if inhaled in large quantities or feel unwell.

Symptoms caused by exposure

Inhalation	May cause mild irritation.
Skin Contact:	May cause skin irritation, itchiness and reddening.
Ingestion:	May be fatal if swallowed and enters airways. May cause irritation, reddening and burning sensation to mouth and throat, decreased motor activity, inco-ordination and hyperactivity.
Eye Contact:	May cause eye irritation, stinging and reddening.

Medical Attention and Special Treatment

Treat systematically. Read this SDS and/or Label.

5. Fire Fighting Measures

Suitable extinguishing media	Use fire extinguishing methods suitable to surrounding conditions.
Specific hazards arising from the chemical	Hazardous combustion products include oxides of carbon, oxides of sulphur, other sulphur compounds, calcium compounds, smoke and water. This 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.
Special protective equipment and precautions for fire fighters	Fire fighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Otherwise, use water spray to cool them. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water or other extinguishing agent and spillage safely later.
Hazchem Code	N/A

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	In case of spillage it is important to take all steps necessary to: Avoid contact with the spilled material or contaminated surfaces. Extinguish or remove any sources of ignition. When dealing with spills do not eat, drink or smoke and wear protective clothing and equipment. Keep people and animals away. Prevent spilled material from entering drains or watercourses.
Environmental precautions	Do not allow to get into surface water, drains and ground water. If the product contaminates rivers and lakes or drains inform respective authorities. Reposition any leaking containers so as to minimise leakage. Dam and absorb spill with an absorbent material (eg sand or soil). Shovel the absorbed spill into drums
Methods and materials for containment and cleaning up	Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled, sealed drums for safe disposal. Deal with all spillages immediately.). Clean contaminated floors and objects thoroughly, observing environmental regulations If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.
6.4 Reference to other sections	Information regarding safe handling see section 7. Information regarding personal protective equipment see section 8. Information regarding waste disposal, see section 13.

7. Handling and Storage

Precautions for safe handling	Safe work practices are recommended. Avoid contact with eyes and skin. When opening the container and preparing spray wear appropriate PPE (refer Section 8). Do not spray under high wind conditions. Hygiene measures: When using products, do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly with soap and water after use and before eating, drinking, smoking/using tobacco, chewing gum, using the toilet or applying cosmetics. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Avoid contact with eyes and skin.
Conditions for safe storage, including any incompatibilities:	Keep out of reach of children, unauthorised persons and animals. Store in tightly sealed original containers in a dry secure place away from fertilizers, feed and food. Store out of direct sunlight and extreme temperature. Always read the label and any attached leaflet before use.

8. Exposure controls/personal protection (continued on page 4)

Control parameters – exposure standards, biological monitoring	There has been no exposure standards set for this product.
Appropriate engineering controls	No special requirements. Product is used outdoors Control process conditions to avoid contact. Use only in well-ventilated areas. If necessary, use local exhaust ventilation to keep airborne concentration below the exposure limits.
Personal protective equipment (PPE):	When opening the container, preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles. When using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat and optional once chemical is prepared for use, elbow length PVC chemical resistant and face shield or goggles if

protected from spray drift/contamination.

Face and Eye Protection: Face shield or goggles.

Clothing: Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat.

Gloves: Elbow-length chemical resistant PVC gloves.

Respiratory: If airborne concentrations are likely to exceed the exposure standards above or if exposed to dust, an AS/NZS 1715/1716 approved respirator should be worn.

Recommended to use Australian and New Zealand Standard PPE:

Overalls AS 3765, Clothing for protection against Hazardous chemicals

Gloves: AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves)

Goggles and face shield AS/NZS 1337, Eye protectors for industrial applications.

Footwear AS/NZS 2210, Occupational protective footwear

Respirators AS NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices

AS/NZS 1716, Respiratory Protective Devices

Requirements Concerning Training Check State and/or Territory regulations that require people who use pesticides in their job or business to have adequate training in the application of the materials.

9. Physical and chemical properties

Appearance	Amber coloured Liquid
Odour	Solvent-like
Relative Density	~0.9
pH (1% deion. Water)	3.6 (as 5% emulsion)
Boiling point	No information available
Solubility in water	Emulsifies into water
Flash point	62-65.6 °C (Setaflash Closed Cup)
Fire Point >960C	No information available
Partition coefficient (octanol/Water)	No information available
Specific gravity	No information available
Viscosity	No information available
Auto-ignition	No information available

10. Stability and Reactivity

Thermal decomposition	Stable under normal conditions
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions. Hazardous polymerisation will not occur.
Conditions to avoid	Heat, flames, hot surfaces, direct sunlight and sparks.
Incompatible materials	Strong oxidizing agents, Acids and Bases
10.6 Hazardous decomposition products	Oxides of carbon, oxides of sulphur, other sulphur compounds, calcium compounds, smoke and water.

11. Toxicological information (continued on page 4)

Acute oral toxicity	May be fatal if swallowed and enters airways. May cause irritation, reddening and burning sensation to mouth and throat, decreased motor activity, inco-ordination and hyperactivity.
Acute inhalation toxicity	May cause mild irritation. May cause mild irritation.
Skin irritation	May cause skin irritation, itchiness and reddening
Eye irritation	May cause eye irritation, stinging and reddening
Assessment mutagenicity	No data or information available.
Assessment carcinogenicity	This product does not contain any IARC listed chemicals.
Assessment toxicity to reproduction	No data or information available
Assessment developmental toxicity	No data or information available
Assessment STOT Specific target organ toxicity – repeated exposure	No data or information available
Chronic Health Effects	May cause increased liver weight and changes in blood chemistry.
Aspiration hazard	May be fatal if swallowed and enters airways.
Information on likely routes of exposure	May be fatal if swallowed and enters airways. Harmful if absorbed through skin. Irritating to skin. Causes eye irritation.
Data limitations	The Australian Acceptable Daily Intake (ADI) for clethodim for a human is 0.01 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 1mg/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', 30 June 2014).

No further toxicological information is available.

Further information

12. Ecological information

Toxicity

Eco toxicity	Non-toxic to bird life. Non-toxic to bees. LD50 >100 µg/bee
Aquatic toxicity:	Slightly toxic to aquatic organisms.

Persistence and degradability

Not persistent in soils. Clethodim half-life in soil: 3 days.
Persistent in the aquatic environment. Half-life in water: 128 days. Half-life in sediments: 214 days

Bio accumulative potential

Bioaccumulation is not expected to occur.

Mobility in soil

No information available

Other adverse effects

No information or data available.

13. Disposal considerations

Disposal of product	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®).
Disposal of Container	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. Empty containers and product should not be burnt.

14. Transport information

General Transport Information	It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.
Land	Considered non-dangerous for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)
Sea and Air	Considered non-dangerous for transport by sea and air in accordance with the IMDG Code 37-14

15. Regulatory information

Poisons Schedule number	Schedule 5
Safety, health and environmental regulations specific for the product in question	Registered according to the Agricultural and Veterinary Chemicals Code Act 1994 (Australian Inventory of Chemical Substances: 64742-94-5 - Solvent naphtha (petroleum), heavy arom.; 99129-21-2 - Clethodim

16. Other information

Date of Review	This Safety Data Sheet (SDS) was reviewed 24 January 2017 and replaces the Material Data Safety Sheet dated 20/04/11 and any prior dated MSDS/SDS.
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Acronyms:

AVPMA: Australian Pesticides and Veterinary Medicines Authority.
GHS: Globally Harmonised system of Classification and Labelling of chemicals
HSIS: Hazardous Substances Information System
NOHSC: National Occupational Health and Safety Commission
CAS No.: unique numerical identifier assigned by Chemical Abstracts Service (division of the American Chemical Society)
STEL: Exposure standard - short term exposure limit.
AS/NZS: Australian Standards and New Zealand Standards for Personal protective equipment
ADI: Acceptable Daily Intakes For Agricultural And Veterinary Chemicals
ADG: Australian Dangerous Goods
IMDG: International Maritime Code of Dangerous Goods
IATA: International Air Transport Association

End of SDS

DISCLAIMER:

This SAFETY DATA SHEET has been developed according to the Work Health and Safety Regulations (WHS Regulations) Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals December 2011. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this SAFETY DATA SHEET is to describe product in terms of their safety requirements. Grow Choice Pty Ltd makes no representation of merchantability, fitness for a particular purpose of application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purpose prior to the use of the product. The physical data shown herein are typical values based on the material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof.

Due care should be taken to make sure that the use or disposal of this product and/or its packaging is in compliance with Relevant Federal, State and Local Government regulations.