




1. Product identifier & identity for the chemical

Product Identifier	Choice Hexazinone 250 Herbicide
Active Constituent	250 g/L HEXAZINONE
Other means of Identification	Agricultural herbicide. Grow Choice product code number: 2008 : APVMA Registered number: 63235 / 0608
Recommended use of the chemical and restrictions on due	For the control of certain broadleaf weeds, perennial and annual grasses, woody weeds in Pinus radiata plantations, pasture situations and commercial and industrial areas and rights of way
Suppliers name, address and phone number:	Grow Choice Pty Ltd 113 Fitzroy Street TAMWORTH NSW 2340 Phone: 02 6766 3979 Email: rfagan@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 Globally Harmonized System of Classification and Labelling of Chemicals (the GHS). Classified as a Dangerous Goods according to the ADG Code.

Summary of Hazardous Identifications	ADG UN number: 1170 Class 3 Poisons Schedule number: S5		
Hazard Statements	Highly flammable liquid and vapour Harmful if swallowed Causes serious eye irritation Very toxic to aquatic life with long lasting effects		
Classification of the hazardous chemical	Flammable liquid – category 2 Acute toxicity – category 4 Eye irritation – category 2 Hazardous to the aquatic environment (acute) – category 1 Hazardous to the aquatic environment (chronic) – category 1		
GHS symbol	Flammable	Environment	Exclamation mark
			
Signal word	Warning and Danger		
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.		
Prevention Statements	<p>P233: Keep container tightly closed.</p> <p>P240: Ground/Bond container and receiving equipment</p> <p>P241: Use explosion-proof electrical/ventilating/lighting and equipment</p> <p>P242: Use only non-sparking tools.</p> <p>P243: Take precautionary measures against static discharge.</p> <p>P280: Wear protective gloves/eye protection/face protection as outlined in Section 8.</p> <p>P210: Keep away from heat/sparks/open flames/hot surfaces.– No smoking.</p> <p>P234: Keep only in original container</p> <p>P264: Wash hands, arms and face thoroughly with soap and water after handling.</p> <p>P280: Wear eye protection/face protection. Refer Section 8 for Standards.</p>		
Response Statements	<p>P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with soap and water/shower.</p> <p>P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337 + P313: If eye irritation persists: Get medical advice/attention.</p> <p>P370 + P378: In case of fire: Use foam blanket, carbon dioxide or dry agent for extinction.</p> <p>P390: Absorb spillage to prevent material damage</p>		
Storage Statements	<p>P403 + P235: Store in a well-ventilated place. Keep cool.</p> <p>P406: Store in corrosive resistant container with a resistant inner liner.</p>		
Disposal Statements	P501: Dispose of contents and container in accordance with local, regional and national regulations.		

3. Composition/information on ingredients

Chemical ingredients: CAS number and other unique identifiers: Concentration of ingredients:	Component	CAS No	Proportion
	Hexazinone	51235-04-2	25 %
	Ethanol	64-17-5	40-45 %
	Inert Ingredients		30-35 %

4. First Aid Measures

Swallow	If swallowed, DO NOT induce vomiting. Rinse mouth out with water if patient is conscious. Seek urgent medical attention.
Eye:	If product gets in eyes, remove contact lenses if wearing and wash it out immediately with water for several minutes. Seek medical attention.
Skin:	Remove contaminated clothing and wash affected areas thoroughly with soap and water. Seek medical attention if concerned.
Inhaled	Move affected person to fresh air and keep at rest until recovered. If inhaled remove to fresh air and keep at rest. Obtain medical advice if at all worried. If not breathing give artificial respiration and get medical attention as soon as possible.
Medical Attention and Special Treatment	In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and speak to a Poisons Information Specialist with a copy of this SDS or chemical Label.

5. Fire Fighting Measures

Suitable extinguishing media	Foam blanket, carbon dioxide or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained.
Specific hazards arising from the chemical	Product is FLAMMABLE . Flash Point 23-2 degrees Celsius. Flammable liquid vapours may form explosive mixtures with air.
Special protective equipment and precautions for fire fighters	Fire fighters should wear Safe Work Australia approved self-contained breathing apparatus (AS/NZS 1715/1716) and full protective gear. Keep unnecessary people away. If it can be done safely, remove intact containers from the fire. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of extinguishing agent and spillage safely later. Contamination of water bodies should be avoided. Liquid and vapour are flammable.
Explosion and Fire Hazards	Moderate fire hazard when exposed to heat or flame. Vapour forms an explosive mixture with air. Moderate explosion hazard when exposed to heat or flame. Vapour may travel a considerable distance to source of ignition. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). Decomposes on heating and produces toxic fumes of: carbon dioxide (CO ₂), nitrogen oxides (NO _x)

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Environmental precautions	In case of spillage it is important to take all steps necessary to: Instruct and ensure all bystanders to keep away from and upwind of spill/leak. Avoid eye and skin contact; Do not breath dust; Ensure adequate ventilation; Avoid contamination of waterways.
Methods and materials for containment and cleaning up	Refer to Section 8 for Personal Protection Equipment (PPE) . 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. Use vacuum equipment with high efficiency particulate air filters or sweep up without dust generation. Collect in a suitable, closed container to dispose and clean the spilled area with water.

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 (flammable product). 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 3)

Control parameters – exposure standards, biological monitoring	Exposure Standard (TWA) for Ethanol 1880 mg/m cubed (1000ppm).
Appropriate engineering controls	Control process conditions to avoid contact. Use in a well-ventilated area only. Use local exhaust ventilation to keep exposure levels below the exposure limits above.

Personal protective equipment (PPE) When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles.
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, form, colour and odour	Light yellow liquid with alcohol-like odour
pH (1% deion. Water);	No information/data available.
Melting point	No information/data available.
Boiling point	No information/data available.
Flash point	23 – 25 °C
Evaporation rate	No information/data available.
Flammability	FLAMMABLE
Vapour pressure	No information/data available.
Behaviour in water	Dispersible
Relative density	No information/data available.
Solubility in water	Miscible
Auto-ignition temperature	No information/data available.
Decomposition temperature	No information/data available.
Viscosity	No information/data available.

10. Stability and Reactivity

Reactivity	Not known.
Chemical stability	Stable under normal conditions outlined within this SDS.
Conditions to avoid	Flammable. Do not store in direct sunlight and avoid sources of ignition.
Incompatible materials and possible hazardous reactions	Hydrolyses in the presence of strong acids and bases.
Hazardous decomposition products	If burned it will produce oxides of carbon and nitrogen and other toxic fumes. Polymerisation will not occur.

11. Toxicological information

Potential Health Effects:	This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.
Eye	Animals (Unspecified species) Result: Corrosive
Skin	Animals (Unspecified species) Result: Slight irritation
Acute oral toxicity	LD50/Rat: 4,120 mg/kg
Inhalation toxicity:	LC50/4 h/Rat: > 5
mg/l Acute dermal toxicity:	LC50/Rat : > 5,000
mg/kg	
Sensitisation:	Classification: Guinea pig: Did not cause sensitisation on laboratory animals.
Repeated dose toxicity:	The following effects occurred at levels of exposure that exceed those expected under labeled usage conditions. Active ingredient: Oral – feed, Dog; Increased liver enzyme levels in serum, Liver effects Oral – feed, Rat; Reduced body weight gain, Organ weight changes, Liver, Liver effects.
Mutagenicity assessment:	Did not cause genetic damage in cultured bacterial cells. Did not cause genetic damage in cultured mammalian cells. Did not cause genetic damage in animals. Active ingredient.
Carcinogenicity:	Overall weight of evidence indicates that the substance is not
carcinogenic. Assessment:	Active ingredient.
Toxicity to reproduction:	Animal testing showed effects on reproduction at levels equal to or above
those Assessment:	causing parental toxicity. Active ingredient.
Asteratogenicity:	Animal testing: Active ingredient showed effects on embryo-foetal development at levels equal to or above those causing maternal toxicity.

12. Ecological information

Eco toxicity	Toxicity to fish: LC50/96 h/Oncorhynchus mykiss (Rainbow trout): > 320 mg/l . Active ingredient. Toxicity to algae: ErC50/120 h/Pseudokirchneriella subcapitata (Green algae): 0.0068 mg/l. Active ingredient. Aquatic toxicity: EC50/48 h/Daphnia magna (Water flea): 110 mg/l. Active ingredient
Environmental Toxicology:	No information is available for the product. The following information refers to the active ingredient, Hexazinone. Hexazinone is slightly to practically nontoxic to birds. The acute oral LD50 of hexazinone in bobwhite quail is 2258 mg/kg. The 5- to 8-day dietary LC50 in bobwhite quail and mallard ducklings is greater than 10,000 ppm. Hexazinone is slightly toxic to fish and other freshwater organisms. Some of the reported 96-hour LC50 values include: Rainbow trout, 320 mg/L; Bluegill, 370 mg/L; Fathead minnow, 274 mg/L. The 48-hour LC50 for hexazinone in the water flea, Daphnia magna, is 151 mg/L. The bioconcentration factor in bluegill sunfish is only seven times the ambient water concentration, indicating very low bioaccumulation in fish. Hexazinone is nontoxic to honey bees.
Environmental Fate:	Hexazinone is of moderate to high persistence in the soil environment. Measured field half-lives range from less than 30 to 180 days, with a representative value of about 90 days. Hexazinone is broken down by soil microbes, which release carbon dioxide in the process. Sunlight may also break down the compound via photodegradation. The rate of breakdown under natural field conditions will depend on many site-specific variables, including sunlight, rainfall, soil type, and rate of application. Hexazinone does not evaporate to any appreciable extent from soil. Hexazinone is very poorly adsorbed to soil particles, very soluble in water, and slowly degraded, so it is likely to be mobile in most soils and has the potential to contaminant groundwater.
Breakdown in water:	Photodecomposition, biodegradation, and dilution are the prime mechanisms for loss of hexazinone activity in aquatic systems. Breakdown in vegetation: Hexazinone is readily absorbed in the root zone and translocated throughout the plant. It is less mobile following uptake from the foliage. It is converted in non-susceptible plants to less phytotoxic compounds. In susceptible plants, it is more persistent and can result in disruption of photosynthesis and chloroplast damage.

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

It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products. Not subject to the ADG Code when transported by Road or Rail in Australia, in packages 500kg(L) or less; or IBCs, but classed as Dangerous by IATA and IMDG when carried by Air or Sea transport (see details below). ADG Code: 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. UN 1170, Class 3 (Flammable liquid), Packing Group III, Proper Shipping Name ETHANOL SOLUTION. Hazchem code ●2Y. Hazard Identification Number (HIN) 30.

15. Regulatory information

Poisons Schedule number Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) – Poison Schedule: 5

16. Other information

Date of Review This Safety Data Sheet (SDS) was completed 3 March 2020 and replaces MSDS 20 April 2015.

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)
TWA: Exposure Standard - time weighted average
STEL Exposure standard - short term exposure limit.
mg/m3 Milligrams of substance per cubic metre of air at 25°C and one atmosphere pressure. The value is exact.
AS/NZS: Australian Standards and New Zealand Standards for Personal protective equipment
ADI: Acceptable Daily Intakes For Agricultural And Veterinary Chemicals
EMS Number:
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.