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ALPHA DUOP 100 INSECTICIDE

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Identifier	Alpha Duop 100 Insecticide
Active Constituent	100 g/L Alpha Cypermethrin 735 g/L Liquid Hydrocarbons
Other means of Identification	Agricultural insecticide. Grow Choice product code number: : 2005 APVMA Registered number: 53298
Recommended use of the chemical and restrictions on due	For the control of insect pests including heliothis (<i>Helicoverpa</i> spp.) on various crops and red legged earth mite and blue oat mite on certain field crops and pastures and certain pests on fruit and vegetable crops 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

SECTION 2: HAZARDS IDENTIFICATION

- ☞ Classified as **HAZARDOUS** in accordance with the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004) 3rd 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 **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14 (refer Section 14)
- SUSMP Classification:** S6
- ADG Classification:** Class 9: Miscellaneous Dangerous Goods.
- UN Number:** 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Classification of the hazardous chemical:

Flammable liquids Category 4
Acute Toxicity Oral Category 4
Aspiration Hazard Category 1
Specific Target Organ Toxicity - Single Exposure Category 3
Specific Target Organ toxicity - repeated exposure Category 2
Hazardous to aquatic environment Short term/Acute Category 2

GHS Symbol



GHS Signal word: **WARNING**

HAZARD STATEMENT:

- H227: Combustible liquid.
- H302: Harmful if swallowed.
- H304: May be fatal if swallowed and enters airways.
- H336: May cause drowsiness or dizziness.
- H373: May cause damage to organs through prolonged or repeated exposure.
- H401: Toxic to aquatic life.

PREVENTION

- P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
- P260: Do not breathe fumes, mists, vapours or spray.
- P262: Do not get in eyes, on skin, or on clothing.
- P264: Wash contacted areas thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P273: Avoid release to the environment.
- P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

- P314: Get medical advice or attention if you feel unwell.
- P362: Take off contaminated clothing and wash before reuse.
- P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
- P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
- P381: Eliminate all ignition sources if safe to do so.
- P391: Collect spillage.
- P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog. Water fog or fine spray is the preferred medium for large fires.

STORAGE

P405: Store locked up.

STATEMENTS

P410: Protect from sunlight.

P403+P235: Store in a well-ventilated place. Keep cool. Refer Section 7

DISPOSAL

P501: Dispose of contents and container in accordance with local, regional and national regulations.

STATEMENTS

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients	CAS No	Conc, g/L
Alpha-cypermethrin	67375-30-8	100
Liquid hydrocarbon	64742-94-5	755

SECTION 4: FIRST AID MEASURES (cont. on page 3)

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 In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and

Special Treatment: speak to a Poisons Information Specialist with a copy of this SDS or chemical Label.

SECTION 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is little risk of an explosion from this product if commercial quantities are involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: use carbon dioxide, dry chemical, foam or water fog. Water fog or fine spray is the preferred medium for large fires. Contain spills, minimise spillage entering drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

Flash point: >63°C (Pensky Martin closed cup) ASTM D 93

Upper Flammability Limit: No data.

Lower Flammability Limit: No data.

Auto ignition temperature: No data.

Flammability Class: Flammable Category 4 (GHS), C1 combustible (AS 1940)

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures 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.

Environmental precautions Refer to Section 8 for Personal Protection Equipment (PPE).
Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Methods and materials for containment and cleaning up Reposition any leaking containers so as to minimise leakage.
Dam and absorb spill with an absorbent material (e.g. sand or soil) or proprietary absorbent such as vermiculite.
Shovel the absorbed spill into drums.
Collect in a suitable, closed container to dispose and clean the spilled area with water.

SECTION 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 Keep out of reach of children, unauthorised persons and animals.

storage, including any incompatibilities: 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.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

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. Keep stored in original container in a cool, well ventilated area, keeping the lid closed at all-times whilst in storage.

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 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 & 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.

The ADI for Alpha cypermethrin is set at 0.05mg/kg/day. The corresponding NOEL is set at 4.7mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Data from Australian ADI List, June 2014.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical Description & colour: Clear straw coloured liquid.
Odour: Aromatic hydrocarbon odour.
Boiling Point: Approx. 135°C at 100kPa
Freezing/Melting Point: Below 0°C.
Volatiles: 60%
Vapour Pressure: No data.
Vapour Density: No data.
Specific Gravity: 0.92-0.95 at 20°C
Water Solubility: Emulsifiable.
pH: No data.
Volatility: No data.
Odour Threshold: No data.

Evaporation Rate:	No data.
Coeff Oil/water distribution:	No data
Auto ignition temp:	No data.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Keep away from heat, flames and sparks. Keep away from sources of ignition. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: strong acids, strong bases, strong oxidising agents.

Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form hydrogen chloride gas and other compounds of chlorine. Phosgene fumes may be emitted. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: Polymerisation reactions are unlikely; they are not expected to occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity - Oral LD50 (rat) 57 mg/kg for alpha-cypermethrin technical LD50 (rat) >2000 mg/kg for alpha-cypermethrin LD50 (rabbit) >2000 mg/kg for alpha-cypermethrin Acute Toxicity - Dermal Acute Toxicity - LC50 (rat) (4hr) >0.593 mg/l

Inhalation: The concentrate is harmful if swallowed.

Ingestion of alpha-cypermethrin in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination. Ingestion may cause irritation to the respiratory tract.

Breathing the vapour can result in headaches, dizziness and possible nausea. Breathing in high concentrations of vapour can produce central nervous system depression, which can lead to loss of coordination, impaired judgement and if exposure is prolonged, unconsciousness.

May irritate the skin. Exposure to alpha-cypermethrin can result in sensations of tingling especially in the face. The effects are transient and generally disappear in one to two days. Topical application of vitamin E cream is effective in reducing discomfort. The occurrence of 'facial sensations' is an indication of exposure. Under these circumstances work practices should be reviewed.

Eye The concentrate may cause irritation of the eyes.

Chronic Effects Repeated exposure could result in peripheral nervous system damage.

Serious eye damage/irritation: Mild eye irritant.

Skin corrosion/irritation: Mild skin irritant.

The Australian Acceptable Daily Intake (ADI) for alpha-cypermethrin for a human is 0.05 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 4.7 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: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', June 2014).

Mutagenic Effects: No information was found.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Alpha-cypermethrin	>=10%Conc<20%: Xn; R22; R48/22
Liquid Hydrocarbon	Conc>=10%: Xn; R65

SECTION 12: ECOLOGICAL INFORMATION

This product is toxic to aquatic organisms, may cause long term adverse effects to the aquatic environment. This product is toxic to bees. This product is not readily biodegradable.

Persistence and degradability	Average field half life of alpha-cypermethrin is 90 days.
Known Harmful	Alpha-cypermethrin products do not appear to pose any threat to birds. The product is a marine pollutant for sea transport. Alpha-cypermethrin is toxic to fish.
Effects on the Environment	The following is data for the active ingredient, alpha-cypermethrin.
Acute Toxicity – Fish	Toxic to fish. LC50 (96hr) for rainbow trout is 0.0028 mg/l.
Acute Toxicity - Daphnia	LC50 (48hr) for alpha-cypermethrin is 0.0003 mg/l.
Acute Toxicity - Other Organisms	Birds: Not toxic to birds. LD50 for mallard duck is >10,000 mg/kg Bees: Toxic to bees. LD50 0.059 µg/bee. Should not be applied while bees are actively foraging.

SECTION 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.

SECTION 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 DANGEROUS for transport by sea and air in accordance with the IMDG Code 37-14
UN Number:	3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Hazchem Code:	2XE
Special Provisions:	179, 274, 331, 335, AU01
Limited quantities:	ADG 7 specifies a Limited Quantity value of 5 L for this class of product.
Dangerous Goods Class:	Class 9: Miscellaneous Dangerous Goods.
Packing Group:	III
Packing Instruction:	P001, IBC03, LP01
	Class 9 Miscellaneous Dangerous Goods shall not be loaded in the same vehicle or packed in the same freight container with Dangerous Goods of Class 1 (Explosives).

SECTION 15: REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. **Poisons Schedule number:**

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) – Poison Schedule: **S6**

SECTION 16: ANY OTHER RELEVANT INFORMATION

Date of Review This Safety Data Sheet (SDS) was completed 16 January 2017 and replaces MSDS dated June 2013.

Legend:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

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 data 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.