

Infosafe No™ 3NU1W	Issue Date : April 2015	ISSUED by NUFARM
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Product Name **Astound Duo Insecticide**

Classified as hazardous

## 1. Identification

<b>GHS Product Identifier</b>	Astound Duo Insecticide
<b>Product Code</b>	1710
<b>Product Type</b>	Group 3A Insecticide
<b>Company Name</b>	NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
<b>Address</b>	103-105 Pipe Road Laverton North Victoria 3026 Australia
<b>Telephone/Fax Number</b>	Tel: +61 3 9282-1000 Fax: +61 3 9282-1001
<b>Emergency phone number</b>	1800 033 498 (24hr Australia)
<b>Recommended use of the chemical and restrictions on use</b>	For the control of certain insect pests on various crops and redlegged earth mite and blue oat mite on certain field crops and pastures as indicated in the Directions for Use table on the label.
<b>Other Information</b>	This Safety Data Sheet describes the properties of the concentrated product. The physical properties and the assessments may not apply to the properties of the product once it has been diluted for application.

## 2. Hazard Identification

<b>GHS classification of the substance/mixture</b>	Acute Toxicity - Oral: Category 3 STOT Single Exposure Category 3 (respiratory tract irritation) STOT Single Exposure Category 3 (narcotic) STOT Repeated Exposure Category 2 Eye Damage/Irritation: Category 1 Carcinogenicity: Category 2
<b>Signal Word (s)</b>	DANGER
<b>Hazard Statement (s)</b>	Harmful if swallowed. May cause respiratory irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Causes serious eye damage. Suspected of causing cancer. Repeated exposure may cause skin dryness or cracking
<b>General Precautionary Statement (s)</b>	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use.
<b>Pictogram (s)</b>	Corrosion, Exclamation mark, Health hazard, Skull and crossbones



<b>Precautionary statement – Prevention</b>	Wash hands and exposed skin hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe mist or spray. Wear protective gloves, clothing, eye and face protection. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
<b>Precautionary statement – Response</b>	IF exposed or concerned: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
<b>Other Information</b>	Poisons Schedule S6

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### 3. Composition/information on ingredients

<b>Chemical Characterization</b>	Liquid		
<b>Ingredients</b>	<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
	Alpha Cypermethrin	67375-30-8	100 g/L
	Liquid Hydrocarbons	64742-94-5	742 g/L
	Surfactant		0-10 %

### 4. First-aid measures

<b>Inhalation</b>	Remove affected person to fresh air until recovered. If symptoms develop or persist, seek medical advice.
<b>Ingestion</b>	Rinse mouth thoroughly with water. If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
<b>Skin</b>	Remove contaminated clothing and launder before re-use. Wash affected areas thoroughly with soap and water. If irritation persists, seek medical advice.
<b>Eye contact</b>	If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice.
<b>First Aid Facilities</b>	If poisoning occurs, contact a doctor or the Poisons Information Centre (Australia) on 13 11 26.
<b>Advice to Doctor</b>	Treat symptomatically. In cases of skin contact, application of Vitamin E cream has been found to have very high therapeutic value.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog, foam, carbon dioxide or dry chemical. Avoid using large volumes of water which would spread the product.
<b>Hazards from Combustion Products</b>	Although material is not flammable, the concentrate is combustible. If involved in a fire, it will emit carbon monoxide and possibly hydrogen chloride.
<b>Special Protective Equipment for fire fighters</b>	Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.
<b>Other Information</b>	STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

### 6. Accidental release measures

<b>Spills &amp; Disposal</b>	Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal. Dispose of at a landfill in accordance with local regulations. On-site disposal of concentrate is not acceptable.
<b>Clean-up Methods - Large Spillages</b>	Place damaged containers in recovery bins (if available) and return to manufacturer.

### 7. Handling and storage

<b>Precautions for Safe Handling</b>	Do NOT contaminate dams, rivers or streams, or any other water bodies with pesticide or used containers. Do NOT spray in high winds.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in the closed, original container in a dry, well ventilated area out of direct sunlight. Do not store below 4 °C.
<b>Other Information</b>	Always read the label and any attached leaflet before use.

### 8. Exposure controls/personal protection

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<b>Occupational exposure limit values</b>	No biological exposure limit allocated. No exposure standards have been set for this product or the active ingredients. The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m <sup>3</sup> ; 17ppm TWA, as total hydrocarbon.
<b>Appropriate engineering controls</b>	Handle in well ventilated areas, generally natural ventilation is adequate.
<b>Respiratory Protection</b>	Do not inhale spray mist.
<b>Personal Protective Equipment</b>	When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and face shield or goggles.
<b>Hygiene Measures</b>	After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash contaminated clothing and safety equipment.

## 9. Physical and chemical properties

<b>Form</b>	Liquid
<b>Appearance</b>	Clear straw coloured liquid.
<b>Odour</b>	Aromatic Odour.
<b>Boiling Point</b>	184°C
<b>Solubility in Water</b>	Not soluble.
<b>Specific Gravity</b>	0.92 @20°C
<b>pH</b>	4.5 - 5.5
<b>Volatile Component</b>	>60% by volume
<b>Flash Point</b>	62°C
<b>Flammability</b>	Combustible Liquid (GHS). Combustible liquid Cl. (AS1940)
<b>Kinematic Viscosity</b>	>27 x10 <sup>-6</sup> m <sup>2</sup> /sec

## 10. Stability and reactivity

<b>Chemical Stability</b>	Do not store below 4°C. The product crystallises at low temperatures.
<b>Possibility of hazardous reactions</b>	Keep away from strong oxidising agents.
<b>Hazardous Polymerization</b>	Hazardous polymerisation is not possible.

## 11. Toxicological Information

<b>Acute Toxicity - Oral</b>	LD50 (rat) 57 mg/kg for alpha-cypermethrin technical
<b>Acute Toxicity - Dermal</b>	LD50 (rat) >2000 mg/kg for alpha-cypermethrin LD50 (rabbit) >2000 mg/kg for alpha-cypermethrin
<b>Acute Toxicity - Inhalation</b>	LC50 (rat) (4hr) >0.593 mg/l
<b>Ingestion</b>	The concentrate is harmful if swallowed. Ingestion of alpha-cypermethrin in relatively large amounts can result in headache, nausea, lethargy, motor weakness and incoordination.
<b>Inhalation</b>	May cause irritation to the respiratory tract. Breathing 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.
<b>Skin</b>	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

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<b>Eye</b>	these circumstances work practices should be reviewed. The concentrate may cause irritation of the eyes.
<b>Chronic Effects</b>	Repeated exposure could result in peripheral nervous system damage.
<b>Serious eye damage/irritation</b>	Mild eye irritant.
<b>Skin corrosion/irritation</b>	Mild skin irritant.
<b>Other Information</b>	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).

## 12. Ecological information

<b>Persistence and degradability</b>	Average field half life of alpha-cypermethrin is 90 days.
<b>Known Harmful Effects on the Environment</b>	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.
<b>Acute Toxicity - Fish</b>	The following is data for the active ingredient, alpha-cypermethrin. Toxic to fish. LC50 (96hr) for rainbow trout is 0.0028 mg/l.
<b>Acute Toxicity - Daphnia</b>	LC50 (48hr) for alpha-cypermethrin is 0.0003 mg/l.
<b>Acute Toxicity - Other Organisms</b>	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.

## 13. Disposal considerations

<b>Product Disposal</b>	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®).
<b>Container Disposal</b>	Do not use this container for any other purpose. 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. Triple or preferably pressure rinse containers before disposal. Add rinsings to the spray tank. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal at an approved waste management facility. 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. Returnable containers: empty contents fully into application equipment. Replace cap, close all valves and return to the point of supply for refill or storage. Drain container thoroughly.

## 14. Transport information

<b>Storage and Transport</b>	Considered non dangerous for road and rail transport (in packaging, including IBCs not greater than 3000 Lt each) by the Australian Code for the Transport of Dangerous Goods by Road and Rail. Ref: ADG7; SP No. AU01.
<b>UN Number (Sea Transport)</b>	For bulk shipments as Class 9, use UN 3082, HazChem code 2Z. 3082

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<b>IMO Class/Packing Group</b>	Class 9; Packing Group III
<b>IMO Marine Pollutant</b>	Marine Pollutant
<b>IMO Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Alpha-cypermethrin)

## 15. Regulatory information

<b>Poisons Schedule</b>	S6
<b>Packaging &amp; Labelling</b>	POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
<b>Other Information</b>	This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA). APVMA product number: 53039.

## 16. Other Information

<b>Date of preparation or last revision of SDS</b>	Revised 15/04/2015. This SDS replaces document dated June 2013.
<b>Contact Person/Point</b>	Normal Hours: Mrs Kathleen Marsh Phone: +61 3 9282 1000 After Hours: Shift Supervisor Phone: 1800 033 498
<b>Revisions Highlighted</b>	The SDS was reviewed. Minor changes were made to the information.  ...End Of MSDS...

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