

1: Identification of the Substance and Supplier

Product Name	ZAGRO DIAZINON 600EW
Recommended Use	Insecticide
Company Details	Orion AgriScience Ltd Unit 1, 15 Sir Gil Simpson Drive, Harewood, Christchurch, 8053 PO Box 39 071, Harewood, Christchurch, 8545
Web Address	www.orionagriscience.co.nz
Email Address	orders@orionagriscience.co.nz
Telephone Number	(03) 928 2386 (office hours), 0800 674 6627 (free phone)
Emergency Telephone	0800 CHEMCALL (0800 243 622) (24 hours)
National Poison Centre	0800 POISON (0800 764 766) (24 hours)
Date of Issue/Revision	July 2015

2: Hazards Identification

Hazard Pictograms	
Priority Identifiers:	Toxic, Ecotoxic, Keep Out of Reach of Children
HSNO Classes:	Secondary Identifiers:
6.1D	May be harmful if swallowed, inhaled or absorbed through the skin
6.8B	May cause reproductive/development damage from repeated ingestion
6.9A	May cause neurological symptoms from repeated ingestion at high doses
9.1A	Very toxic to aquatic organisms
9.2D	Harmful to soil organisms
9.3A	Very toxic to terrestrial vertebrates
9.4A	Very toxic to terrestrial invertebrates

3: Composition/ Information on Ingredients

Ingredient	CAS No	Content (% w/v)
Diazinon (active ingredient)	333-41-5	60
Other ingredients, surfactants, water, etc	Proprietary	Remainder

4: First Aid Measures

Skin Contact:	In case of contact, immediately wash affected area with soap and water. Wash contaminated clothing before reuse. Seek medical advice if irritation persists.
Eye Contact:	Hold eyes open and rinse with water for at least 15 minutes. Remove contact lenses if easy to do so. Seek medical advice if irritation persists.
Ingestion:	Do not induce vomiting. Keep strictly at rest as continued movement enhances toxic effects. Seek medical advice
Inhalation:	Immediately move to fresh air and rest. Maintain half upright position if breathing is difficult. Seek medical advice immediately.
Workplace Facilities:	Hand wash facility. Eye wash facility.
Advice to Doctor:	Diazinon is an organophosphorus insecticide, which inhibits cholinesterase activity, and interferes in nerve pulse transmission. On set of symptoms may be delayed for several hours. Atropine is the specific antidote and may be given immediately by qualified staff, at a level of 2 - 5mg (intravenously or intramuscularly), every 20 minutes until atropinisation occurs. Considerable amounts of atropine may be necessary. Atropine must NOT be given to cyanosed patients; administer oxygen first. Do NOT use opiates or barbiturates. If convulsions occur, administer

National Poison Centre	<p>diazepam (10mg intravenously). Take venous blood sample for determination of blood cholinesterase activity. Cholinesterase reactivators (Pralidoxime) should, if possible, be given at the same time as atropine. They are not effective after 24 hours post exposure and are not substitutes for atropine. Pralidoxime should be administered at: Mild poisoning: 1g in 2 - 3ml water (intramuscularly), Severe poisoning: 2g in 30ml water (intravenously). Following ingestion, adsorbents such as charcoal may be of value.</p> <p>0800 POISON (0800 764 766) (24 hours)</p>
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5: Fire-Fighting Measures

Fire/Explosion Hazard	Non-Flammable.
HAZCHEM Code	3Z
ERP Guide No	47
Extinguishing Media	Water spray, foam, dry chemical or CO2.
Fire Fighting Instructions	During a fire, toxic fumes may be emitted. Wear self-contained breathing apparatus. Contain runoff.

6: Accidental Release Measures

Caution: Floors may be slippery if wet. Leave and/or avoid entering confined spaces. When dealing with spills wear personal protective clothing and equipment as described in section 8. Prevent further spillage or leakage. Keep bystanders away. Absorb spillage with inert material such as spill kit, sand or cat litter. Collect and place in a sealable container for disposal. Wash down affected area with water and detergent. Absorb and collect washinas for disposal. Dispose of safely to a suitable landfill.

7: Storage, Handling and Use

Storage:	Keep out of reach of children. Store in the original, tightly closed container, in a secure area away from feed or foodstuffs.
Handling and Use:	Keep out of reach of children. Avoid contact with eyes and skin. Avoid inhalation of spray mist. When mixing, using or applying, wear protective clothing as described in section 8. Wash splashes of concentrate from skin immediately. Do not eat, drink or smoke while using. Wash hands and face after use. Wash protective clothing after use.
Approved Handler	Required.
Tracking	Not required.
Record Keeping	For wide dispersive use, written notification must be given to any persons likely to be affected – this includes occupiers and owners immediately neighbouring the application area. Notification must be made 2 days – 4 weeks ahead of the application. Notification must include the location of the application area; the proposed date and approximate duration of the application; the steps to be taken by those notified to avoid exposure (e.g., staying indoors, closing windows and doors, moving washing indoors, disconnecting roof water supply, etc.); and the notifiers details (including name and phone number for immediate contact during application).
REI	Required for indoor applications. Signs must be posted at every access point to the application area stating an application is being carried out using a substance that is toxic to people; access is not permitted unless appropriate protective equipment is worn; details of the person in charge; the date of the application; and the time/date of the expiry of the REI. Signs must be removed within 72 hours of the end of the application or the REI (whichever is the later). Signs must be in compliance with the Hazardous Substances (Identification) Regulations 2001.
Site Requirements under the HSNO Act 1996 and HSNO Regulations:	Record of use must be kept if applied where members of the public may be lawfully present, or where it is likely to enter air or water and leave that place. A record must be made which details the measures taken to avoid spray drift.
Additional Requirements	<p>24 hours</p> <ul style="list-style-type: none"> • A location test certificate is not required • A hazardous atmosphere zone is not required

- Fire extinguishers are not required
- Signage is required for 100 litres or more
- Emergency information is required for 0.1 litre or more
- An emergency plan is required for more than 100 litres
- Secondary containment is required for more than 100 litres
- Separation/Segregation from incompatible substances is not applicable.

All aspects of storage, handling, use, disposal and record keeping must be in accordance with NZS 8409:2004 'Management of Agrichemicals', and relevant local and regional council plans.

8: Exposure Control / Personal Protection

Tolerable Exposure Limit	None established.
Workplace Exposure Standards	Product – None established (Use lowest practicable level). Active ingredient – Diazinon 0.1 mg/m ³ (8hr TWA) Excipients – None established (Use lowest practicable level).
Engineering Controls	Limited given nature of use.
Personal Protection:	
Eye	Safety glasses/goggles when mixing or applying.
Skin	Chemical resistant coveralls with hood tightly fitting at head, wrists and ankles (e.g., Tychem F suit), chemical resistant boots and chemical resistant gloves (barrier multilayer, nitrile, neoprene).
Respiratory	Respirator (organic vapour and particulate matter) when mixing or applying.
Biological Monitoring	Regular users should undergo biological monitoring of cholinesterase activity. Consult with your GP or Occupational Health Adviser.

9: Physical and Chemical Properties

Form	White Liquid
Odour	Pungent
Boiling Point	Not available
Flash Point	>93°C (closed cup method)
Auto ignition Temperature	Not available
Explosive Limits	Not available
Density	1.1 g/ml (approx)
Vapour Pressure	Not available
Vapour Density	Not available
Solubility in Water	Emulsifiable
pH	5.0 – 8.0
Oxidising Properties	Not an oxidizer
Corrosive Properties	Not a corrosive

10: Stability and Reactivity

Stability	Stable under normal conditions.
Incompatibility	Avoid mixing with strong acids, alkalis, and oxidizing agents such as chlorine compounds, ammonium nitrate, etc.
Decomposition	Decomposition will not occur under normal conditions.
Dangerous Reactions	Products arising from combustion or thermal decomposition will be toxic.

11: Toxicological Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

Swallowed	Excessive sweating, salivation, headache, weakness, faintness, nausea, diarrhoea, small pupils, blurred
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Eye	vision, muscle twitching.
Skin	Irritation. May cause constriction of the pupil.
Inhalation	Mild irritation. Can be absorbed via the skin (see symptoms under 'swallowed' above).
Note: Symptoms may be delayed for up to 24 hours or more following exposure	Irritation, headache, dizziness, nausea, vomiting. Can be absorbed via the lungs (see symptoms under 'swallowed' above).
Acute Toxicity (Active Ingredient)	<ul style="list-style-type: none"> • Acute Oral LD50 (Rat) 1250 mg/kg • Acute Dermal LD50 (Rat) > 2150 mg/kg • Inhalation LC50 (4 hr) (Rat) > 2.3 mg/l
Sensitisation Effects	None
Mutagenic Effects	None
Carcinogenic Effects	None
Reproductive Effects	None
Teratogenic (Birth) Effects	Animal experiments involving chronic exposure are inconclusive. Injection of diazinon into eggs has shown deformities in chicks. Tests on animals at low feeding doses showed no development effects. However, tests at higher feeding doses showed gross abnormalities.
Systemic Effects	Interferes with cholinesterase, an enzyme essential for the correct functioning of the nervous system.

12: Ecotoxicity Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

The following information is presented in respect of the active ingredient:

Ecotoxic Effects	<ul style="list-style-type: none"> • Acute Oral LD50 (Mallard duck) 2.7 mg/kg • LC50 (96 hr) (Rainbow trout) 2.6 – 3.2 mg/l • LC50 (48 hr) (Daphnia) 0.96 µg/l • Algae EC50 >1 mg/l • Acute Oral LD50 (Bee) 0.20 µg/bee
Environmental Fate	Biodegradable. DT50 (soil) 11 – 21 days.
Partition Co-Efficient (Kow)	LogP = 3.30 (high)
Environmental Exposure Limit:	None established.

13: Disposal Considerations

Product	Dispose of product by using it in accordance with the label. Do not burn. Waste product should be disposed of to a suitable landfill. For disposal of large quantities contact Orion AgriScience Ltd.
Container	Dispose of to a suitable landfill or agricultural recycling scheme. Do not burn. Do not use packaging for any other purpose.

14: Transport Information

Dangerous Goods	
UN Number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIAZINON 60%)
Class	9
Subsidiary Class	None
Packing Group	III
Additional Information	MARINE POLLUTANT
MTQ (Non-Commercial)	1000 litres
Passenger Service Vehicle	Maximum quantity 10 litres

15: Regulatory

HSNO Approval No	HSR000180
ACVM Registration No	P7870

16: Other Information

Glossary	
Approved Handler	For some hazardous substances, persons storing, handling and using must be trained and certified
DT50	Time (days) for 50% reduction in concentration
EC50	Concentration required to produce an effect in 50% of organisms
Environmental Exposure Limit	Maximum concentration limit of a substance in an environmental medium, e.g., water, soil.
ERP Guide	Dangerous Goods – Initial Emergency Response Guide SNZ HB 76:2008
HAZCHEM Code	Emergency action code for emergency services
HSNO	Hazardous Substances and New Organisms
LC50	Concentration that will kill 50% of organisms
LD50	Dose that will kill 50% of organisms
MTQ	Maximum Transport Quantity. The maximum amount of dangerous goods that can be transported by road by the user
Partition Co-Efficient Kow	Ratio of concentration between octanol and water. Values are given as the log value. A high value indicates a substance may bioaccumulate
Record Keeping	Includes a spray diary
REI	Restricted Entry Interval – The length of time after application before entry into the treated area is permitted without the use of protective equipment. For indoor environments, this time period commences once ventilation after treatment begins.
Safety Note	A brief document providing hazardous substance information for transport, storage and emergency management purposes
STEL	Short term exposure level
Tolerable Exposure Limit	Maximum concentration limit of a substance above which persons must not be exposed
Tracking	For some hazardous substances, a record must be kept of the transport, storage, sale and use of the product
TWA	Time weighted average
Workplace Exposure Standard	An occupational health standard limiting concentrations of specified substances to which persons are exposed
Wide Dispersive Use	A method of application involving equipment such as boom sprayers, mist blowers, vine sprayers, row sprayers, etc., as well as aerial application. Hand gunning within 30m of a property boundary is also classed as wide dispersive use. Knapsack sprayers are not classed as wide dispersive use

Please Note

Users must ensure that the most up to date version of this safety data sheet is used.

This Safety Data Sheet summarises information on this product, and how to safely handle and use the product. Each user should familiarise themselves with the product label, Safety Note and Safety Data Sheet, and consider the information in the context of how the product will be handled and used, including in conjunction with other products. Orion AgriScience Ltd assumes no responsibility for the accuracy, completeness or suitability of this information. The user is responsible for determining the suitability and accuracy of this information for their particular purposes. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Always read the product label before use.