

1: Identification of the Substance and Supplier

Product Name	GESAPON
Recommended Use	Insecticide
Suppliers 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 2020

2: Hazards Identification

Hazard Pictograms



Signal Words

Hazard Classes:

- 6.1D Acute Toxicity (Oral Cat. 4)
- 6.1E Acute Toxicity (Dermal Cat. 5)
- 6.8B Reproductive Toxicity (Cat. 2)
- 6.9A Target Organ Systemic Toxicity (Oral Cat. 1)
- 9.1A Aquatic Ecotoxicity (Cat. 1)
- 9.2D Soil Ecotoxicity
- 9.3A Terrestrial Vertebrate Ecotoxicity
- 9.4A Terrestrial Invertebrate Ecotoxicity

Precautionary Statements:

Prevention

Response

Danger

Hazard Statements:

- H302 Harmful if swallowed
- H313 May be harmful in contact with skin
- H361 Suspected of damaging fertility or the unborn child
- H372 Causes damage to organs through prolonged or repeated exposure
- H410 Very toxic to aquatic life with long lasting effects
- Harmful to the soil environment
- Very toxic to terrestrial vertebrates
- Very toxic to terrestrial invertebrates

- P101 If medical advice is needed, have product container or label at hand
- P102 Keep out of reach of children
- P103 Read carefully and follow all instructions
- P264 Wash hands thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P203 Obtain, read and follow all safety instructions before use
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P260 Do not breathe dust/fume/gas/mist/vapours/spray
- P280 Wear eye protection / face protection

Read label before use. Avoid contact with eyes and skin. Do not breathe in the dust. When mixing or applying, wear personal protection as described in section 8. Take all reasonable steps to ensure that this product does not cause any significant adverse effects to the environment beyond the application area. Do not apply this substance to plants if bees are foraging, or the plants are in flower or part flower, and are likely to be visited by non-target invertebrate pollinators (including bees). Do not apply directly into or onto water.

- P301+P317 IF SWALLOWED: Get medical help
- P330 Rinse mouth

	<p>P302+P317 IF ON SKIN: Get medical help</p> <p>P318 If exposed or concerned, get medical advice</p> <p>P319 Get medical help if you feel unwell</p> <p>P391 Collect spillage</p> <p>First aid measures described in section 4. Contain and collect spillage for disposal. In an emergency call 111, Police or Fire Brigade. For specialist advice in an emergency only, call 0800 CHEMCALL (0800 243 6225) (24 hrs).</p>
Storage	<p>P405 Store locked up</p> <p>Keep out of reach of children.</p>
Disposal	<p>P501 Dispose of contents by using it in accordance with this label. Dispose of the container via AgRecovery after triple rinsing (use the rinsate for spraying).</p>

3: Composition/ Information on Ingredients

Ingredient	CAS No	Content (% w/w)
Diazinon (active ingredient)	333-41-5	20
1,2-ethanediol	107-21-1	<10
Other ingredients	Proprietary	Remainder

4: First Aid Measures

If medical advice is needed, have product container or label at hand. For advice call the National Poisons Centre or a Doctor

Ingestion:	Seek medical advice
Skin Contact:	Wash with plenty of soap and water. Seek medical advice if feeling unwell
Eye Contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if easy to do so. Continue rinsing. Seek medical advice if irritation persists.
Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice if feeling unwell.
Workplace Facilities:	Hand wash facility. Eye wash facility
Advice to Doctor:	Gesapon 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 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.
National Poison Centre	0800 POISON (0800 764 766) (24 hours)

Symptoms of Exposure which could occur if this material is not handled in accordance with instructions:

Ingestion:	Excessive sweating, salivation, headache, weakness, faintness, nausea, diarrhoea, small pupils, blurred vision, muscle twitching.
Skin Contact:	Can be absorbed via the skin (see symptoms under 'swallowed' above).
Eye Contact:	May cause irritation. May cause constriction of the pupil.
Inhalation:	May cause irritation. Can be absorbed via the lungs (see symptoms under 'swallowed' above)

Note: Symptoms may be delayed for up to 24 hours or more following exposure

5: Fire-Fighting Measures

Fire/Explosion Hazard	Non-flammable. As with many dusts, an explosive air/dust mixture may be formed if rough handling liberates dust from the granules in enclosed or poorly ventilated areas.
HAZCHEM Code	2Z
ERP Guide No	47
Extinguishing Media	Water spray, foam, dry chemical or CO ₂ . Avoid water jet.
Fire Fighting Instructions	During a fire, toxic fumes may be emitted. Wear self-contained breathing apparatus. Contain runoff.
Specific Hazards Arising from Fire	No data available

6: Accidental Release Measures

Personal Precautions	Wear protective clothing as described in section 8. Do not inhale dust. Exclude non-essential people from the area.
Environmental Precautions	Prevent further spillage or leakage. Prevent material from entering drains, waterways, etc.
Clean Up	Keep bystanders away. Leave and/or avoid entering confined spaces. Do not inhale dust or vapour. If dust is generated, wear respiratory protection (with organic vapour cartridge). Moisten to prevent dusting and carefully sweep up. Place spilled product in a sealable container. Dispose of to a suitable landfill.

7: Handling and Storage

Storage:	Keep out of reach of children. Store in the original tightly closed container in a secure area.
Handling and Use:	Keep out of reach of children. Refer to Prevention statements in section 2 above. Keep people and animals away from the area while spraying and for the duration of the REI.
REI	None specified (Also refer Section 15)

8: Exposure Controls / Personal Protection

Tolerable Exposure Limit	None established
Workplace Exposure Standards	Diazinon 0.1 mg/m ³ (8hr TWA); 1,2-ethanediol – 50 ppm / 127 mg/m ³ (ceiling)
Engineering Controls	Select application equipment to minimize exposure to operator and bystanders
Biological Monitoring	Regular users should undergo biological monitoring of cholinesterase activity. Consult with your GP or Occupational Health Adviser.
Personal Protection:	
Eye	Safety glasses/goggles when mixing or applying
Skin	Cotton overalls snugly fitting at the neck, wrist and ankle, boots and gloves (barrier multilayer, nitrile, neoprene) when mixing and applying
Respiratory	Not required where dust or vapour is not inhaled. Otherwise, respirator (organic vapour and particulate matter) is required.

Clean protective equipment after use

9: Physical and Chemical Properties

Appearance	Green Granules
Odour	Pungent
Odour Threshold	No data available
pH	Not applicable
Melting Point/Freezing Point	No data available
Boiling Point	No data available
Flash Point	Not applicable
Flammability	Not flammable
Upper/Lower Flammability Limits	Not available. As with many dusts, an explosive air/dust mixture may be formed if rough handling liberates dust in enclosed or poorly ventilated areas
Vapour Pressure	No data available
Vapour Density	No data available
Relative Density	No data available

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Solubility in Water	Insoluble
Partition Coefficient: n-octanol/water	See section 12
Auto ignition Temperature	Not applicable
Decomposition Temperature	No data available
Kinematic Viscosity	No data available

10: Stability and Reactivity

Stability	Stable under normal conditions
Hazardous Reactions	None Expected
Incompatibility	Do not mix with fertilizers
Hazardous Decomposition Products	None Known

11: Toxicological Information

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

Acute Oral Toxicity	LD50 > 300 mg/kg
Acute Dermal Toxicity	LD50 > 2000 mg/kg
Acute Inhalation Toxicity	LD50 > 5 mg/L
Skin Irritant/Corrosive	Irritation
Eye Irritant/Corrosive	Irritation
Sensitisation Effects	None
Mutagenic Effects	None
Carcinogenic Effects	None
Reproductive Effects	Diazinon is a suspected human reproductive or developmental toxicant
Specific Organ Toxicity	Diazinon interferes with cholinesterase, an enzyme essential for the correct functioning of the nervous system

12: Ecological Information

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

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

Ecotoxicity	<ul style="list-style-type: none">Acute Oral LD50 (Mallard duck) 2.7 mg/kgLC50 (96 hr) (Rainbow trout) 2.6 – 3.2 mg/lLC50 (48 hr) (Daphnia) 0.96 µg/lAlgae EC50 >1 mg/lAcute Oral LD50 (Bee) 0.20 µg/bee
Persistence/degradability	Biodegradable DT50 (soil) 9 days (typical)
Bioaccumulative Potential	Octanol-water partition coefficient LogP = 3.69 (high)
Soil Mobility	Soil organic carbon water partitioning coefficient Koc = 609 (slightly mobile)
Environmental Exposure Limit:	None established

13: Disposal Considerations

Product	Dispose of product by using it in accordance with the label. 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. Do not burn. Do not use packaging for any other purpose.

14: Transport Information

Dangerous Goods	
UN Number	3077

Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DIAZINON 20%)
Class	9
Subsidiary Class	None
Packing Group	III
Additional Information	MARINE POLLUTANT
MTQ (Non-Commercial)	1000 Kg
Passenger Service Vehicle	No restriction

15 Regulatory Information

EPA Approval No	HSR000175
ACVM Registration No	P2130
Qualified Person	Required
Certified Handler	Not required
Workplace Only	No
Tracking	Not required
Record Keeping	Not required (unless > 3 Kg applied within 24 hours, and which is likely to leave the application area)
Site Requirements under EPA Notice and HSWHS Regs:	<ul style="list-style-type: none"> • A hazardous substance location compliance certificate is not required • A hazardous area is not required • Separation distances for class 3 and class 6 substances to protected places and public places is not applicable • Fire extinguishers are not required • Signage is required for more than 100 Kg • An emergency response plan is required for more than 100 Kg • Secondary containment is not required • Segregation from incompatible substances is not required
Application Rates	Maximum application rate 15 Kg/ha. Maximum application frequency 2 times per crop cycle
Notification	For aerial application, 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).
Private Residential Property	For application by professional at private residences, an information sheet must be provided to the occupier that states the product details (Gesapon must be named, and diazinon as the active ingredient at 20% must be stated); that the substance may be harmful if swallowed or is in contact with the skin; that people and animals (including children and pets) must not go onto the treated area until granules have been watered in and are no longer visible; the symptoms of poisoning; an instruction to seek medical advice if anyone is exposed to or consumes the substance; and a 24 hour emergency phone number. The notice must be in compliance with the Hazardous Substances (Identification) Regulations 2001.
Additional Requirements	Refer to NZS 8409:2004 'Management of Agrichemicals', and relevant local and regional council plans

16: Other Information

Glossary	
ADE	Acceptable Daily Exposure – A daily dose, received via any route, below which no adverse effects are expected over a lifetime of exposure
ACVM	Agricultural Compounds and Veterinary Medicines group of the Ministry of Primary Industries
Cat.	GHS category
Ceiling	A concentration that should not be exceeded at any time during any part of the working day

Certified Handler	A qualification issued by a Compliance Certifier to handle and use particularly toxic substances (6.1A and 6.1B)
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.
EPA Notice	Hazardous Property Controls Notice 2017
ERP Guide	Dangerous Goods – Initial Emergency Response Guide SNZ HB 76:2008
GHS	Globally harmonized system of classification and labelling of chemicals
Hazardous Substance Location	For locations storing hazard substances of certain classes above threshold quantities
Compliance Certificate	
Hazardous Area	A designated area designed for the presence of flammable substances - Refer AS/NZS 60079.10.1:2009
HAZCHEM Code	Emergency action code for emergency services
HSWHS Regs	Health and Safety at Work (Hazardous Substances) Regulations 2017
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
Notification	Advance notice given to neighbours and other affected parties, of details of proposed application, and other details as described
Octanol-Water Partition Coefficient	The partition coefficient of a substance between n-octanol and water, used as the Logarithm base 10 form, as an indicator that a substance may bioaccumulate
PDE	Permitted Daily Exposure - A daily dose below which no adverse effects are expected over a lifetime of exposure
Protected Place	Residential properties, schools, hospitals, kindys, factories, shops, warehouses, etc., and other places where people assemble
Public Place	A place frequented by the public, including roads (does not include private property)
Qualified Person	A requirement for the loader, contractor or person applying the product to hold a qualification such as a GROWSAFE Certificate, Unit Standard 21563, etc.
Record Keeping	Includes a spray diary or other record of application
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.
Segregation	Certain classes of substances must not be in contact with, and must be stored separately from, certain other classes as specified in HSWHS Regs
Separation Distances	The distances specified in Part 11 and Part 13 of HSWHS Regs between storage and/or use of hazardous substances and protected places and/or public places
Signage	Positioned at entrances to commercial premises providing information on the hazardous substances present
Soil Adsorption Coefficient (Kd)	The ratio of the concentrations of a substance adsorbed onto a solid sorbent to that dissolved in a liquid phase. The higher the value the less mobile the chemical is in soil
Soil Organic Carbon-Water Partitioning Coefficient (Koc)	The ratio of the mass of a chemical that is adsorbed in the soil per unit mass of organic carbon in the soil. The higher the value the less mobile the chemical is in soil
STEL	Short term exposure level – 15 minute time weighted average
Tolerable Exposure Limit	Maximum concentration limit of a substance above which persons must not be exposed
Tracking	For some particularly hazardous substances, a record must be kept of the transport, storage, sale and use

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of the product

TWA

Time weighted average calculated over an 8 hour working day

Workplace Exposure Standard

An occupational health standard limiting concentrations of specified substances to which persons are exposed

Workplace Only

A product that is restricted to a workplace only and under the supervision of a certified handler

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 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.