



Safety Data Sheet

infosafe
CS: 1.7.2

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Infosafe No™ 3NU8K Issue Date : August 2015 ISSUED by NUFARMNZ

Product Name **DIAZINON 20G**

1. Identification

GHS Product Identifier DIAZINON 20G
Product Code 03430
Product Type Organophosphate Insecticide
Company Name Nufarm NZ
Address 6 Manu Street, Otahuhu
Auckland 2024 New Zealand
Telephone/Fax Number Tel: 0-9-270 4150
Fax: 0-9-270 4159
Emergency phone number 0800 651 911
Email info@nz.nufarm.com
Recommended use of the chemical and restrictions on use A granular insecticide for the control of porina caterpillar and grass grub in pasture, and carrot rust fly.

2. Hazard Identification

Other Information 6.1D acute toxicant, 6.8B reproductive or developmental toxicant, 6.9A target organ toxicant, 9.1A aquatic toxicant, 9.3A terrestrial vertebrate toxicant, 9.4A terrestrial invertebrate toxicant, TOXICITY
Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. May cause reproductive/development damage and damage to the nervous system from repeated oral exposure at high doses.
ECOTOXIC
Very toxic to aquatic organisms.
Very toxic to terrestrial vertebrates and terrestrial invertebrates.

3. Composition/information on ingredients

Chemical Characterization Solid
Ingredients

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
Diazinon	333-41-5	200 g/kg
Hydrated aluminium silicate	8031-18-3	<80%w/w
Ingredients determined to be non-hazardous	-	<10%w/w

4. First-aid measures

First Aid Measures For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention.
Inhalation Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.
Ingestion Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.
Skin Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.
Eye contact Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance. Remove contact lenses, if present and easy to do.
First Aid Facilities Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.
Advice to Doctor Organophosphates:
Initial Treatment: Atropine is the specific antidote. Large amounts are required in organophosphate poisoning. An initial trial dose of atropine 2mg

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intravenously should be given and repeated every 15 minutes until an atropine effect is noted (dilated pupils, dry mouth, flushing of the skin). Reduce to a schedule that maintains full atropinisation for at least 24 hours. The dose and frequency of atropine will vary from case to case.

Medical: Take blood samples for cholinesterase levels before starting treatment. Stomach washout if organophosphate has been ingested. Pralidoxime enhances the reactivation of acetyl cholinesterase. It is most effective if given early, but can still be started up to 48 hours after poisoning.

Pralidoxime is given at a dose of 1-2mg by slow I.V. infusion at a maximum rate of 0.5gm/min. It is used as an adjunct to, not a replacement for atropine.

Respiratory Difficulty - Carefully monitor for 24 hours.

Convulsions - Control with Diazepam (Valium) 5-10mg by slow I.V. or I.M. repeat as necessary.

5. Fire-fighting measures

Suitable extinguishing media	Choose extinguishing media to suit the burning material. Water fog, foam, carbon dioxide or dry chemical.
Hazards from Combustion Products	Hazardous thermal decomposition products may include but not limited to: various aliphatic organophosphates, substituted pyrimidine and hydrogen cyanide. S-TEPP and diazoxon may form when diazinon is reacted with trace amounts of water. Oxides of carbon, nitrogen, sulphur and phosphorus may also be formed.
Special Protective Equipment for fire fighters	Full protective clothing and self-contained breathing apparatus.
Specific Methods	Keep up wind. Do not allow washings to reach sewage or effluent systems.
Hazchem Code	2ZE
Other Information	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

6. Accidental release measures

Spills & Disposal	Wear protective clothing. Clear area of unprotected personnel. Sweep up solids without generating dust (use water to dampen). If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill. Wash area with water and absorb with inert material and collect in sealable container for disposal.
Personal Protection	For appropriate personal protective equipment (PPE), refer Section 8.
Environmental Precautions	Prevent product or washings from entering drains, waterways or sewers.

7. Handling and storage

Precautions for Safe Handling	Avoid skin and eye contact and inhalation of dust. APPROVED HANDLER: This product must only be applied by an approved handler or under the direct supervision of an approved handler. TRACKING: Is not required. RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 200gm or more of DIAZINON 20G is applied within 24 hours in a place where members of the public may be lawfully present. Keep ducks and hens off treated areas for 7 days after application. Do not apply onto or into water.
Conditions for safe storage, including any incompatibilities	Keep out of reach of children. Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs. Storage must be in accordance with NZS 8409 Management of Agrichemicals. Stores containing 100kg of DIAZINON 20G are subject to signage, and more than 100kg require emergency response plans.
Other Information	Aggregate Storage Volume Thresholds: When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

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8. Exposure controls/personal protection

Occupational exposure limit values	No exposure standard has been established for this product. WES TWA for diazinon = 0.1 mg/m ³ (skin)
Appropriate engineering controls	Use in a well ventilated area only.
Personal Protective Equipment	When opening the container or handling the product wear cotton overalls buttoned to the neck and wrist (and worn outside boots) washable hat, elbow length PVC gloves, impervious boots and a full face respirator with an organic vapour and particulate matter cartridge.
Hygiene Measures	Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.
Other Information	Persons regularly exposed in manufacturing and handling of this product should have a pre-exposure and periodic red blood cell cholinesterase level check.

9. Physical and chemical properties

Form	Solid
Appearance	Mottled green granules
Solubility in Water	Negligible
pH	pH (1%w/w) >7.0
Vapour Pressure	Not determined. (Diazinon technical = 1.2 x 10 ¹ mPa (25°C))
Partition Coefficient: n-octanol/water	Kow LogP = 3.30 (diazinon)
Flash Point	Not flammable
Auto-Ignition Temperature	Not determined (Diazinon technical = 360°C)
Particle Size	<1180µm; >600µm: min 80%RT
Other Information	(GR) Granule

10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling and storage. Diazinon technical is stable at ambient temperatures and pressures but susceptible to oxidation above 100°C. Stable in neutral media, but slowly hydrolysed in alkaline media, and more rapidly in acidic media.
Incompatible Materials	Avoid contact with oxidising agents. Do not mix with copper compounds, Bordeaux mixture or lime sulphur.
Hazardous Decomposition Products	S-TEPP and diazoxon may form when diazinon is reacted with trace amounts of water.
Hazardous Polymerization	Hazardous polymerisation will not occur.

11. Toxicological Information

Toxicology Information	Diazinon is a cholinesterase inhibitor. Warning symptoms include weakness, headache, tightness of chest, blurred vision, non reactive pinpoint pupils, nausea, salivation, sweating, vomiting, diarrhoea and abdominal cramps. May aggravate pre-existing medical conditions, such as asthma and inflammatory or fibrotic lung disease.
Acute Toxicity - Oral	LD50 (rat): 300mg/kg (diazinon)
Acute Toxicity - Dermal	LD50 (rat): 876mg/kg (diazinon)
Acute Toxicity - Inhalation	LC50 (mouse) = 1,600mg/m ³ /4h (diazinon)
Ingestion	Toxic if ingested.
Inhalation	Toxic if inhaled. Aluminium-magnesium silicate may cause irritation of the respiratory tract and

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Skin	may cause disabling, progressive pulmonary fibrosis (silicosis) due to the crystalline silica (quartz). Symptoms include cough, dyspnoea, sneezing, and impairment of pulmonary function. Progression of symptoms can continue after dust exposure ceases.
Eye	Mildly irritating to the skin. Harmful if absorbed through the skin.
Skin Sensitisation	A mild eye irritant.
Carcinogenicity	guinea pig: not sensitising (diazinon)
Reproductive Toxicity	Diazinon is non-carcinogenic (in rats).
Serious eye damage/irritation	Suspected reproductive/development toxicant (diazinon).
Skin corrosion/irritation	rabbit: slight irritant (diazinon)
Subchronic/Chronic Toxicity	rabbit: slight irritant
Other Information	Target organ: nervous system
	The Australian Acceptable Daily Intake (ADI) for diazinon for a human is 0.001 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 0.02 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', March 2013).
	Aluminium silicate, like other naturally occurring minerals, contains crystalline silica. The International Agency for Research on Cancer (IARC) has determined that there is inadequate evidence of carcinogenicity to humans and limited evidence of carcinogenicity to experimental animals (class 3).

12. Ecological information

Persistence and degradability	Diazinon is not rapidly degradable.
Mobility	Diazinon is fairly strongly adsorbed onto soil. Mobility is low. $T_{1/2}$ = 2-4 weeks in soil.
Environmental Fate	Non phytotoxic when used as directed. Principle metabolites in animals are diethyl thiophosphate and diethyl phosphate. Degradation in soil and water oxidises to the phosphate (diazoxon) and hydrolysis.
Bioaccumulative Potential	Diazinon does not bio accumulate.
Acute Toxicity - Fish	For diazinon: LC50 (96h) Zebra danio >0.8 - <1.2µg/L, Bluegill sunfish 16mg/L Rainbow trout 2.6 - 3.2mg/L Carp 7.6 - 23.4mg/L
Acute Toxicity - Daphnia	For diazinon: LC50 (48h) water flea 0.22-0.29µg/L NOEC (21d) daphnia magna 0.15µg/L
Acute Toxicity - Other Organisms	Oral LD50 mallard duck 1.44mg/kg, Young pheasants 4.3mg/kg (diazinon) LD50 earthworm 130mg/kg of soil (diazinon) Highly toxic to bees LD50 (oral) 0.2µg/bee (diazinon)

13. Disposal considerations

Product Disposal	Dispose of product only by using according to the label, or at an approved landfill.
Container Disposal	Ensure container is completely empty. Burn in an appropriate incinerator if circumstances, such as wind direction, permit. Otherwise crush and bury in an appropriate landfill.

14. Transport information

U.N. Number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. - (diazinon, 20%)
Transport hazard class(es)	9

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Hazchem Code	2ZE
Packaging Method	-
Packing Group	III
EPG Number	-
IERG Number	47
IMO Marine Pollutant	Yes. Environmentally Hazardous Substance mark required.
IMDG EMS	F-A, S-F
Other Information	Do not carry more than 10kg of DIAZINON 20G on a passenger service vehicle. Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details.

15. Regulatory information

National and or International Regulatory Information	Registered pursuant to the ACVM Act 1997, No. P1577 See www.foodsafety.govt.nz for registration conditions Approved pursuant to the HSNO Act 1996, Approval Code HSR000175 See www.epa.govt.nz for approval controls.
Packaging & Labelling	ECOTOXIC HARMFUL - keep out of reach of children
Hazard Rating Systems	NFPA/HMIS: 2-1-0
Hazard Category	HARMFUL * ECOTOXIC - Keep out of reach of children

16. Other Information

Date of preparation or last revision of SDS	February 2015
Contact Person/Point	IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE NORMAL HOURS: Emergency Response Co-ordinator: (649) 268 2920 24Hr Tollfree Emergency No: 0800 651 911 24Hr Emergency No: National Poisons Centre Phone: 0800 764 766
Revisions Highlighted	The SDS was reviewed and various changes and updates made following organophosphate and carbamate reassessment. Hazchem code changed from 2XE to 2ZE. ...End Of MSDS...

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