

# Diafenthiuron Novachem Pty Ltd

### Version No: 1.2

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 3

Issue Date: **04/12/2020** Print Date: **04/12/2020** S.GHS.AUS.EN

# SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier		
Product name	Diafenthiuron	
Chemical Name	diafenthiuron	
Synonyms	DRE-C12177000	
Proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. (Diafenthiuron)	
Chemical formula	C 23 H 32 N 2 OS	
Other means of identification	DRE-C12177000	
CAS number	80060-09-9*	

## Relevant identified uses of the substance or mixture and uses advised against

uses Reference material for laboratory use only

## Details of the supplier of the safety data sheet

Registered company name	Novachem Pty Ltd
Address	25 Crissane Road, Heidelberg West Victoria 3081 Australia
Telephone	+61384151255
Fax	+61386250088
Website	www.novachem.com.au
Email	novachem@novachem.com.au

# Emergency telephone number

Association / Organisation	Victorian Poisons Information Centre
Emergency telephone numbers	13 11 26
Other emergency telephone numbers	Not Available

## **SECTION 2 Hazards identification**

Poisons Schedule         Not Applicable           Classification [1]         Specific target organ toxicity - repeated exposure Category 2, Acute Aquatic Hazard Category 1, Acute Toxicity (Inhalation) Category 3, Category 1	Classification of the substance or mixture		
Classification		Poisons Schedule Not Applicab	
Aquatic Hazard Oalegory h	e Aquatic Hazard Category 1, Acute Toxicity (Inhalation) Category 3, Chronic	Classification [1]	
Legend: 1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	Legend: 1. Classified	

### Label elements

Hazard pictogram(s)
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## Hazard statement(s)

H373 May cause damage to organs through prolonged or repeated exposure. (Respiratory system) (Inhalation)	
H331	Toxic if inhaled.
H410	Very toxic to aquatic life with long lasting effects.

## Precautionary statement(s) Prevention

P260	Do not breathe dust/fume.
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Signal word Danger

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### Diafenthiuron

P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
ecautionary statement(s) Re	sponse
P321	Specific treatment (see advice on this label).
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P311	Call a POISON CENTER or doctor/physician.
P391	Collect spillage.
recautionary statement(s) Sto	rage
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
recautionary statement(s) Dis	sposal
	Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

# SECTION 3 Composition / information on ingredients

## Substances

CAS No	%[weight]	Name
80060-09-9	100	diafenthiuron

### **Mixtures**

See section above for composition of Substances

## **SECTION 4 First aid measures**

## Description of first aid measures

Eye Contact	<ul> <li>If this product comes in contact with the eyes:</li> <li>Immediately hold eyelids apart and flush the eye continuously with running water.</li> <li>Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>Transport to hospital or doctor without delay.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
Skin Contact	If skin contact occurs: <ul> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>Transport to hospital, or doctor, without delay.</li> </ul>
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

## Indication of any immediate medical attention and special treatment needed

## Treat symptomatically.

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

For poisons (where specific treatment regime is absent):

## BASIC TREATMENT

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 L/min.
- Monitor and treat, where necessary, for pulmonary oedema.
- Monitor and treat, where necessary, for shock.
- Anticipate seizures.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

### ADVANCED TREATMENT

- Positive-pressure ventilation using a bag-valve mask might be of use.
- Monitor and treat, where necessary, for arrhythmias.
- Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.

<sup>+</sup> Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.

Drug therapy should be considered for pulmonary oedema.

+ Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.

- Treat seizures with diazepam.
- Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

# **SECTION 5 Firefighting measures**

### Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).Carbon dioxide.
- -----

## Special hazards arising from the substrate or mixture

Fire Incompatibility	Fire Incompatibility Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result	
Advice for firefighters		
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves in the event of a fire.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use fire fighting procedures suitable for surrounding area.</li> </ul>	
Fire/Explosion Hazard	<ul> <li>Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.</li> <li>Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).</li> <li>Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.</li> <li>Combustion products include:</li> <li>carbon monoxide (CO)</li> <li>carbon dioxide (SOX)</li> <li>sulfur oxides (SOX)</li> <li>other pyrolysis products typical of burning organic material.</li> <li>May emit poisonous fumes.</li> </ul>	
HAZCHEM	2X	

# **SECTION 6 Accidental release measures**

## Personal precautions, protective equipment and emergency procedures

See section 8

### **Environmental precautions**

See section 12

## Methods and material for containment and cleaning up

Minor Spills	<ul> <li>Environmental hazard - contain spillage.</li> <li>Clean up waste regularly and abnormal spills immediately.</li> <li>Avoid breathing dust and contact with skin and eyes.</li> <li>Wear protective clothing, gloves, safety glasses and dust respirator.</li> <li>Use dry clean up procedures and avoid generating dust.</li> </ul>
Major Spills	<ul> <li>Environmental hazard - contain spillage.</li> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS.

# **SECTION 7 Handling and storage**

Precautions for safe handling				
Safe handling	<ul> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> <li>Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions)</li> <li>Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.</li> <li>Establish good housekeeping practices.</li> </ul>			

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## Diafenthiuron

	Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.
	Store in original containers.
Other information	Keep containers securely sealed.
other information	Store in a cool, dry, well-ventilated area.
	Store away from incompatible materials and foodstuff containers.
Conditions for safe storage, in	cluding any incompatibilities
	Lined metal can, lined metal pail/ can.
	Plastic pail.
	Polyliner drum.
	Packing as recommended by manufacturer.
	For low viscosity materials
	Drums and jerricans must be of the non-removable head type.
	Where a can is to be used as an inner package, the can must have a screwed enclosure.
Suitable container	For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.):
	Removable head packaging;
	Cans with friction closures and
	Iow pressure tubes and cartridges

- Iow pressure tubes a
- may be used.

All inner and sole packagings for substances that have been assigned to Packaging Groups I or II on the basis of inhalation toxicity criteria, must be hermetically sealed.

Storage incompatibility	Avoid reaction with oxidising agents
• • •	

## **SECTION 8 Exposure controls / personal protection**

### **Control parameters**

#### Occupational Exposure Limits (OEL) INGREDIENT DATA Not Available **Emergency Limits** Ingredient Material name TEEL-1 TEEL-2 TEEL-3 Diafenthiuron Not Available Not Available Not Available Not Available Ingredient Original IDLH Revised IDLH diafenthiuron Not Available Not Available **Occupational Exposure Banding** Ingredient **Occupational Exposure Band Rating Occupational Exposure Band Limit** diafenthiuron

 E
 ≤ 0.01 mg/m³

 Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

## Exposure controls

Notes:

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.
Personal protection	
Eye and face protection	<ul> <li>Safety glasses with side shields</li> <li>Chemical goggles.</li> <li>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	<ul> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</li> <li>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</li> <li>Personal hygiene is a key element of effective hand care.</li> </ul>
Body protection	See Other protection below

Other protection	<ul> <li>Overalls.</li> <li>Eyewash unit.</li> <li>Barrier cream.</li> <li>Skin cleansing cream.</li> </ul>
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### **Respiratory protection**

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor up to 10 x ES	Half-Face Respirator P1	Full-Face Respirator -	Powered Air Respirator PAPR-P1
up to 50 x ES up to 100 x ES	Air-line* Air-line** -	- P2 P3	- PAPR-P2 -
100+ x ES	-	Air-line* Air-line**	- PAPR-P3

\* - Negative pressure demand \*\* - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

• Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.

\* Use approved positive flow mask if significant quantities of dust becomes airborne.

Try to avoid creating dust conditions.

## **SECTION 9** Physical and chemical properties

### Information on basic physical and chemical properties

white powder		
Solid	Relative density (Water = 1)	1.09
Not Available	Partition coefficient n-octanol / water	Not Available
Not Available	Auto-ignition temperature (°C)	Not Available
Not Available	Decomposition temperature	Not Available
144.6-147.7	Viscosity (cSt)	Not Available
Not Available	Molecular weight (g/mol)	Not Available
Not Available	Taste	Not Available
Not Available	Explosive properties	Not Available
Not Available	Oxidising properties	Not Available
Not Available	Surface Tension (dyn/cm or mN/m)	Not Applicable
Not Available	Volatile Component (%vol)	Not Available
Not Available	Gas group	Not Available
Partly miscible	pH as a solution (1%)	Not Available
Not Available	VOC g/L	Not Available
	Solid Not Available Not Available Not Available 144.6-147.7 Not Available Not Available Not Available Not Available Not Available Not Available Not Available Not Available Not Available Partly miscible	Solid       Relative density (Water = 1)         Not Available       Partition coefficient n-octanol / water         Not Available       Auto-ignition temperature (°C)         Not Available       Decomposition temperature (°C)         Not Available       Decomposition temperature (°C)         Not Available       Decomposition temperature (°C)         Not Available       Molecular weight (g/mol)         Not Available       Molecular weight (g/mol)         Not Available       Explosive properties         Not Available       Oxidising properties         Not Available       Surface Tension (dyn/cm or mN/m)         Not Available       Volatile Component (%vol)         Not Available       Gas group         Partly miscible       PH as a solution (1%)

## **SECTION 10 Stability and reactivity**

Reactivity	See section 7	
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>	
Possibility of hazardous reactions	See section 7	
Conditions to avoid	See section 7	
Incompatible materials	See section 7	
Hazardous decomposition products	See section 5	

# **SECTION 11 Toxicological information**

	Inhalation of dusts, generated by the material, during the course of normal handling, may produce toxic effects.				
Inhaled	Inhalation of dusts, generated by the material, during the course of normal handling, may produce toxic effects. The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation of dusts, or fumes, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.				
Ingestion	The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum. Skin sensitivity to thiourea derivatives has been demonstrated in several studies. Allergic contact dermatitis and photocontact dermatitis have been described. The thioureas, which are antithyroid drugs, can cause headache, anxiety, fever, rash and stomach upset.				
Skin Contact	The material is not thought to be a skin irritant (as classified by EC Directives using animal models). Abrasive damage however, may result from prolonged exposures. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. Skin sensitivity to thiourea derivatives has been demonstrated in several studies. Allergic contact dermatitis and photocontact dermatitis have been described. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.				
Eye	Although the material is not thought to be an irritant (as classified by EC characterised by tearing or conjunctival redness (as with windburn). Sligh				
Chronic	Repeated or long-term occupational exposure is likely to produce cumula Exposure to thiourea can result in reduced thyroid function. Prolonged ex levels of circulating thyroid hormone. There has been concern that this material can cause cancer or mutations	posure to high doses causes enlargement of the thyroid and reduced			
	τοχιςιτγ	IRRITATION			
	>1500 mg/kg <sup>[2]</sup>	Not Available			
Diafenthiuron	dermal (rat) LD50: >2000 mg/kg <sup>[2]</sup>	NotAvailable			
Diatenthiuron	Inhalation (rat) LC50: 0.558 mg/l/4h** <sup>[2]</sup>				
	Oral (rat) LD50: 2068 mg/kg <sup>[2]</sup>				
	ΤΟΧΙCΙΤΥ	IRRITATION			
	>1500 mg/kg <sup>[2]</sup>	Eye (rat): non-irritating *			
diafenthiuron	dermal (rat) LD50: >2000 mg/kg <sup>[2]</sup>	Skin (rat): non-irritating *			
	Inhalation (rat) LC50: 0.558 mg/l/4h** <sup>[2]</sup>				
	Oral (rat) LD50: 2068 mg/kg <sup>[2]</sup>				
Legend:					
Legend: Diafenthiuron	Oral (rat) LD50: 2068 mg/kg <sup>[2]</sup> 1. Value obtained from Europe ECHA Registered Substances - Acute too specified data extracted from RTECS - Register of Toxic Effect of chemic         Goitrogenic:         Goitrogens are substances that suppress the function of the thyroid gland enlargement of the thyroid (a goitre).         Goitrogens include:         -       Vitexin, a flavonoid, which inhibits thyroid peroxidase, contributi         -       Thiccyanate and perchlorate, which decrease iodide uptake by the pituitary gland         -       Lithium, which inhibits thyroid hormone release	al Substances d by interfering with iodine uptake, which can, as a result, cause an ng to goitre competitive inhibition and consequently increase release of TSH from regetables in the genus Brassica (which includes broccoli, Brussels			
	Oral (rat) LD50: 2068 mg/kg <sup>[2]</sup> 1. Value obtained from Europe ECHA Registered Substances - Acute too specified data extracted from RTECS - Register of Toxic Effect of chemic         Goitrogenic:         Goitrogens are substances that suppress the function of the thyroid gland enlargement of the thyroid (a goitre).         Goitrogens include:         -       Vitexin, a flavonoid, which inhibits thyroid peroxidase, contributi         -       Thiocyanate and perchlorate, which decrease iodide uptake by the pituitary gland         -       Lithium, which inhibits thyroid hormone release         -       Certain foods, such as soy and millet (containing vitexins) and or sprouts, cabbage, cauliflower and horseradish).	al Substances d by interfering with iodine uptake, which can, as a result, cause an ng to goitre competitive inhibition and consequently increase release of TSH from vegetables in the genus Brassica (which includes broccoli, Brussels on thyroid function as a suppressant. <b>bok, 10th Edition, Editor Clive Tomlin, 1994, British Crop Protectio</b> luctive effects: No reproductive or fetal effects were observed during a boarc 50 SC) Teratogenic effects: No animal mortality was found during as associated with slight maternal toxicity (somnolence, ruffled coat, bio levels were found to be maternally toxic, leading to an increased baserved in the offspring from dams administered a low dose. Mutageni ved at any dose level. In the absence and presence of MA, no romosomal aberrations was observed at any dose. Carcinogenic effect rats following administration of oral doses showed in necropsy findings ced at the termination date showed an increased number of enlarged he various dose groups and are considered not to be treatment relatect tribution of neoplastic and non-neoplastic findings did not appear to			
Diafenthiuron	Oral (rat) LD50: 2068 mg/kg <sup>[2]</sup> 1. Value obtained from Europe ECHA Registered Substances - Acute too specified data extracted from RTECS - Register of Toxic Effect of chemic         Goitrogenic:         Goitrogens are substances that suppress the function of the thyroid gland enlargement of the thyroid (a goitre).         Goitrogens include:         -       Vitexin, a flavonoid, which inhibits thyroid peroxidase, contributi         -       Thiocyanate and perchlorate, which decrease iodide uptake by the pituitary gland         -       Lithium, which inhibits thyroid hormone release         -       Certain foods, such as soy and millet (containing vitexins) and or sprouts, cabbage, cauliflower and horseradish).         -       Caffeine (found in coffee, tea, cola and chocolate), which acts or control         Image: The Pesticides Manual, Incorporating The Agrochemicals Handbe Council]         NOEL (90 d) rats 4, dogs 1.5 mg/kg daily * ADI: 0.003 mg/kg/day Reprocolong-term study of rats fed high doses of a 50% commercial solution (Du the whole process. Treatment with 1.5 mg/kg bw/day of Duparc 50 SC w limpness). At this high dose, the dose-dependent, elevated methaemogle frequency of malformation. No teratogenic or embryotoxic effects were od effects: No significant decrease in mitotic index or confluency was obsern statistically significant increase in the frequency of cells with structural ch Chronic toxicity tests of 95% diafenthiuron tech in Sprague-Dawley (SD) on mice that died during the last 6 months of the test and on those sacrif lymph nodes in males. Organ weight variations occurred sporadically in the histopathological findings failed to	al Substances d by interfering with iodine uptake, which can, as a result, cause an ng to goitre competitive inhibition and consequently increase release of TSH from vegetables in the genus Brassica (which includes broccoli, Brussels on thyroid function as a suppressant. <b>bok, 10th Edition, Editor Clive Tomlin, 1994, British Crop Protectio</b> luctive effects: No reproductive or fetal effects were observed during a boarc 50 SC) Teratogenic effects: No animal mortality was found during as associated with slight maternal toxicity (somnolence, ruffled coat, bio levels were found to be maternally toxic, leading to an increased bserved in the offspring from dams administered a low dose. Mutagenia ved at any dose level. In the absence and presence of MA, no romosomal aberrations was observed at any dose. Carcinogenic effect rats following administration of oral doses showed in necropsy findings ced at the termination date showed an increased number of enlarged he various dose groups and are considered not to be treatment related tribution of neoplastic and non-neoplastic findings did not appear to			
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Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	*
Mutagenicity	×	Aspiration Hazard	×
	Legend: X − Data either not available or does not fill the criteria for classification → − Data available to make classification		

## **SECTION 12 Ecological information**

### Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
Diafenthiuron	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
diafenthiuron	Not Available	Not Available	Not Available	Not Available	Not Available
Legend:	V3.12 (QSAR	n 1. IUCLID Toxicity Data 2. Europe ECHA Reg ) - Aquatic Toxicity Data (Estimated) 4. US EPA (Japan) - Bioconcentration Data 7. METI (Japar	Ecotox database - Aquatic Toxicity Dat	a 5. ECETOC Aquatic Hazard	

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites. Toxic to bees.

The initial, and still integral, toxicity test is the adult honey bee acute contact study. This lab study determines the amount of pesticide that kills 50% of a test group of bees, or LD50. (LD=Lethal Dose).

**DO NOT** discharge into sewer or waterways.

## Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
diafenthiuron	HIGH	HIGH

## **Bioaccumulative potential**

Ingredient	Bioaccumulation
diafenthiuron	LOW (LogKOW = 7.7481)
·	

## Mobility in soil

Ingredient	Mobility
diafenthiuron	LOW (KOC = 45660)

## **SECTION 13 Disposal considerations**

Waste treatment methods	
Product / Packaging disposal	<ul> <li>Containers may still present a chemical hazard/ danger when empty.</li> <li>Return to supplier for reuse/ recycling if possible.</li> <li>Otherwise:</li> <li>If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sever may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> </ul>

## **SECTION 14 Transport information**

Labels Required	
	5000 6
Marine Pollutant	
HAZCHEM	2X

## Land transport (ADG)

UN number	2811		
UN proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. (Diafenthiuron)		
Transport hazard class(es)	Class     6.1       Subrisk     Not Applicable		
Packing group	II		
Environmental hazard	Environmentally hazardous		
Special precautions for user	Special provisions     223 274       Limited quantity     5 kg		

## Air transport (ICAO-IATA / DGR)

UN number	2811			
UN proper shipping name	Toxic solid, organic, n.o.s. * (Diafenthiuron)			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	6.1 Not Applicable 6L		
Packing group	Ш			
Environmental hazard	Environmentally hazardo	bus		
Special precautions for user		Qty / Pack Packing Instructions Maximum Qty / Pack Limited Quantity Packing Instructions	A3 A5 677 200 kg 670 100 kg Y645	
	Passenger and Cargo	Limited Maximum Qty / Pack	10 kg	

# Sea transport (IMDG-Code / GGVSee)

UN number	2811			
UN proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. (Diafe	nthiuron)		
Transport hazard class(es)	IMDG Class         6.1           IMDG Subrisk         Not Applicable			
Packing group				
Environmental hazard	Marine Pollutant			
Special precautions for user	EMS NumberF-A , S-ASpecial provisions223 274Limited Quantities5 kg			

## Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

# **SECTION 15 Regulatory information**

# Safety, health and environmental regulations / legislation specific for the substance or mixture

## diafenthiuron is found on the following regulatory lists

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

## **National Inventory Status**

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (diafenthiuron)
Canada - DSL	No (diafenthiuron)
Canada - NDSL	No (diafenthiuron)
China - IECSC	No (diafenthiuron)
Europe - EINEC / ELINCS / NLP	No (diafenthiuron)
Japan - ENCS	No (diafenthiuron)
Korea - KECI	Yes



National Inventory	Status
New Zealand - NZIoC	No (diafenthiuron)
Philippines - PICCS	No (diafenthiuron)
USA - TSCA	No (diafenthiuron)
Taiwan - TCSI	Yes
Mexico - INSQ	No (diafenthiuron)
Vietnam - NCI	Yes
Russia - ARIPS	No (diafenthiuron)
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

### **SECTION 16 Other information**

Revision Date	04/12/2020
Initial Date	03/12/2020

### SDS Version Summary

Version	Issue Date	Sections Updated
0.2.1.1.1	03/12/2020	Fire Fighter (extinguishing media), Physical Properties, Synonyms

### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

## Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average PC – STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit<sub>o</sub> IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL: No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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