Application Code: HSR04060
Application Type: To import or manufacture any hazardous substance under Section 28 of the Hazardous Substances and New Organisms (HSNO) Act 1996
Applicant: Taranaki NuChem Ltd
Date Application Received: 18 October 2004
Consideration Date: 21 January 2005
Considered by: The Hazardous Substances Standing Committee of the Authority
Purpose of the Application: Sniper is an insecticide to control porina grass grub and clover flea in short fresh pasture and Scarid fly in commercial mushroom houses

1 Summary of Decision

1.1 The application to import or manufacture Sniper™ is approved with controls in accordance with the relevant provisions of the Hazardous Substances and New Organisms Act 1996 (the HSNO Act), the HSNO Regulations, and the HSNO (Methodology) Order 1998.

1.2 The substance has been given the following unique identifier for the ERMA New Zealand Hazardous Substance Register:
Sniper™

1.3 ERMA New Zealand has adopted the European Union use classification system as the basis for recording the nature and uses of substances approved. The following use categories are recorded for this substance:

- Main Category: 4 Wide Dispersive Use
- Industrial category: 1 Agricultural Industry
- Function/Use category: 38 Pesticide
2 Legislative Criteria for Application

2.1 The application was lodged pursuant to section 28 of the HSNO Act. The decision was determined in accordance with section 29, taking into account additional matters to be considered in that section and matters relevant to the purpose of the Act, as specified under Part II of the HSNO Act. Unless otherwise stated, references to section numbers in this decision refer to sections of the HSNO Act.

2.2 Consideration of the application followed the relevant provisions of the Hazardous Substances and New Organisms (Methodology) Order 1998 (the Methodology). Unless otherwise stated, references to clauses in this decision refer to clauses of the Methodology.

3 Application Process

3.1 The application was formally received on 18 October 2004.

3.2 In accordance with sections 53(1) and 53A, and clauses 2(2)(b) and 7, public notification was made on 2 November 2004.

3.3 Submissions closed on 14 December 2004. No submissions were received.

3.4 Various government departments (including the Ministry of Health, the Department of Labour (Occupational Safety and Health) and the New Zealand Food Safety Authority (Agricultural Compounds and Veterinary Medicines (ACVM) Group)), Crown Entities and interested parties, which in the opinion of the Authority would be likely to have an interest in the application, were notified of the receipt of the application (sections 53(4) and 58(1)(c), and clauses 2(2)(e) and 5) and provided with an opportunity to comment or make a public submission on the application.

3.5 A response was received from:
- The New Zealand Food Safety Authority (Agricultural Compounds and Veterinary Medicines Group) stating that, “As this application will be considered under the ACVM Act, any issues which may arise under the Acts administered by MAF/NZFSA will be considered as part of that application”.

3.6 No external experts were used in the consideration of this application (clause 17).

3.7 A hearing was not held as there were no submitters involved: the applicant did not request a hearing and the Authority did not consider a hearing necessary (section 60).

3.8 The following members, of the Hazardous Substances Standing Committee, considered the application (section 19(2)(b)) by fax-back: Mr Tony Haggerty (Chairperson), Dr Max Suckling and Ms Helen Atkins.

3.9 The information available to the Committee comprised:
- The application, including confidential appendices
4 Consideration

Purpose of the Application

4.1 The purpose of the application is to manufacture and release Sniper™ for use as an insecticide to control porina grass grub and clover flea in short fresh pasture and Scarid fly in commercial mushroom houses.

Sequence of the Consideration

4.2 Clause 24 requires the Authority to use recognised risk identification, assessment, evaluation and management techniques.

4.3 In accordance with clause 24, the approach adopted by the Committee was to:
- Establish the hazard classification for the substance and derive the default controls.
- Identify potentially non-negligible risks, costs, and benefits.
- Assess potentially non-negligible risks, costs, and benefits in the context of the default controls and possible variations to those controls. Risks were assessed in accordance with clause 12, and costs and benefits in accordance with clause 13.
- Consider and determine variations to the default controls arising from the circumstances provided for in sections 77 (3), (4), (5) and 77A and then consolidate controls.
- Evaluate overall risks, costs, and benefits to reach a decision. The combined impact of risks, costs and benefits was evaluated in accordance with clause 34, and the cost-effectiveness of the application of controls was considered in accordance with clause 35; including consideration of the applicant’s comments on the proposed controls.

Hazard Classification

4.4 The Committee agreed with the hazard classification determined by the Project Team and classifies the substance as follows:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sniper™</td>
<td>6.4A Eye Irritant</td>
</tr>
<tr>
<td></td>
<td>6.9B Target Organ Toxicant</td>
</tr>
<tr>
<td></td>
<td>9.1A Aquatic Ecotoxicant</td>
</tr>
</tbody>
</table>

Default Controls

4.5 The Committee considered that the E&R Report correctly assigned default controls as set out in the HSNO Regulations. The default controls were used as the reference for subsequent consideration of the application; they are identified in the E&R Report (Table 1, section 8) and are not reproduced here.
Identification of the Significant Risks, Costs and Benefits of the Substance

4.6 The Committee identified potentially non-negligible risks, costs and benefits with reference to clauses 9 and 11, which incorporate relevant material from sections 2, 5, 6, and 8.

Risks

4.7 The Committee reviewed the identification of risks made by the applicant and additional risks identified in the E&R Report.

4.8 The environmental risks relate to aquatic ecotoxicity. They can occur through spillage of the substance at any stage of the life cycle, resulting in the substance having an adverse effect on aquatic organisms.

4.9 The human health risks relate to eye irritation and target organ systemic toxicity. For an effect to occur to human health the substance would need to be ingested, or splashed into the eyes. Acute effects could occur throughout the life cycle. Chronic effects require repeated exposure and are therefore only likely to occur to workers during manufacture or use.

Costs

4.10 A “cost” is defined in Regulation 2 of the Methodology as “the value of a particular adverse effect expressed in monetary or non-monetary terms”. The Methodology and the Act both call for consideration of monetary and non-monetary costs (clause 13 and section 9).

4.11 The Committee is satisfied that there are no significant new or cumulative costs that will result from the release of this substance.

Benefits

4.12 A “benefit” is defined in Regulation 2 of the Methodology as “the value of a particular positive effect expressed in monetary or non-monetary terms”. Benefits that may arise from any of the matters set out in clauses 9 and 11 were considered in terms of clause 13.

4.13 For this substance, the Committee agreed that the benefits put forward by the applicant, as listed below, if realised, are likely to be significant:

- Sniper™ is formulated as a suspension concentrate, in comparison to existing formulations of diflubenzuron which are available as wettable powders. This makes Sniper™ a more cost-effective and easier to handle product.
- As a suspension concentrate, Sniper™ does not pose the dust inhalation hazard that is associated with a wettable powder.
- The availability of Sniper™ provides farmers with an alternative product for use against porina grass grub and clover flea in pasture and Scarid fly in commercial mushroom houses.
Assessment of the Potentially Non-negligible Risks of the Substance

4.14 The risks assessed were those identified as potentially non-negligible. Risks were considered in terms of the requirements of clause 12, including the assessment of consequences and probabilities, the impact of uncertainty and the impact of risk management.

4.15 The evidence available was largely scientific in nature and was considered in terms of clause 25(1). This evidence comprised that provided by the applicant and additional evidence set out in the E&R Report.

4.16 In assessing risk, the Committee gave particular consideration to risks arising from the significant hazards of the substance i.e. ecotoxicity, and human health effects, and examined the extent to which exposure to hazard would be mitigated by controls (clauses 11 and 12).

4.17 The Committee established that risks to human health, the environment, to Māori, to society, to the economy and to international obligations are negligible to low with the controls in place.

Assessment of the Potentially Non-negligible Costs and Benefits

4.18 The Methodology and the Act both call for consideration of monetary and non-monetary costs (clause 13 and section 9). The potentially non-negligible costs are discussed in paragraphs 4.9 and 4.10. The Committee is satisfied that there are no significant costs that will result from the release of the substance.

4.19 The potentially non-negligible benefits are discussed in paragraphs 4.11 and 4.12. The Committee is unable to place an expected value on the benefits (clause 13 (b)) but is satisfied that the ability of the substance to enter the market could give rise to the associated benefits.

Establishment of the Approach to Risk in the Light of Risk Characteristics

4.20 Clause 33 requires the Authority, when considering applications, to have regard for the extent to which a specified set of risk characteristics exist. The intention of this provision is to provide a route for determining how cautious or risk averse the Authority should be in weighing up risks and costs against benefits.

4.21 In accordance with clause 33, the Committee has established a cautious position in weighing up risks and costs against benefits due to the risks posed by the substance to the environment through spillage and to humans through exposure.

Overall Evaluation of Risks, Costs and Benefits

4.22 Having regard to clauses 22 and 34 and in accordance with the tests in clause 27 and section 29, risks, costs and benefits were evaluated taking account of all proposed controls including default controls plus proposed variations to the controls.
4.23 Clause 34 sets out the approaches available to the Authority in evaluating the combined impact of risks, costs and benefits, i.e. weighing up risks, costs and benefits.

4.24 The Committee decided that the substance poses negligible to low risk to the environment, to human health, to Māori, to society, to the economy and to international obligations. The application was considered in accordance with clause 27 and the Committee concluded that the benefits outweighed the risks and costs.

**Variation of Controls under Section 77**

4.25 Under section 77(3), (4) and (5), the default controls determined by the hazardous properties of the substance may be varied.

4.26 The applicant was given an opportunity to comment on the proposed controls as set out in the E&R Report (clause 35(b)). No comments were received.

4.27 The Committee decided that the following variations should apply to Sniper™:

4.28 Control T1 relates to limiting exposure to toxic substances. The Committee considered that the requirement to set an Acceptable Daily Exposure (ADE) is met, and adopted the existing World Health Organisation Acceptable Daily Intake value for diflubenzuron of 0.02 mg/kg bw/day.

4.29 Additionally, the Committee considered that the following PDEs and TELs for diflubenzuron apply:

- PDE\textsubscript{food} = 0.01 mg/kg bw/day
- PDE\textsubscript{drinking water} = 0.004 mg/kg bw/day
- PDE\textsubscript{inhalation} = 0.002 mg/kg bw/day
- PDE\textsubscript{dermal} = 0.002 mg/kg bw/day
- TEL\textsubscript{air} = 0.003 mg/m\textsuperscript{3}.

4.30 Control T2, relates to the requirement to set Workplace Exposure Standards (WES). The Committee noted that no WES value has been set for Diflubenzuron or for any other component in Sniper™ by the Occupational Safety and Health Service, Department of Labour, and in the absence of relevant industrial hygiene data with respect to the use of this substance in New Zealand, the Committee considered that no WES value should be set for Sniper™ and that control T2 be deleted under section 77(4).

4.31 Controls T4 and E6, are combined (section 77(5)) as they both relate to requirements for equipment used to handle hazardous substances.

4.32 Control E1 requires that an Environmental Exposure Limit (EEL) is established. The Committee considered that the following EELs, previously set for Diflubenzuron, should apply to Sniper™:

- Diflubenzuron, EEL\textsubscript{Marine Water} = 0.0002 mg/L water
- Diflubenzuron, EEL\textsubscript{Fresh Water} = 0.00037 mg/L water.

4.33 Control E2 requires that a maximum application rate be established if an EEL is established for a substance used on an area of land. The Committee considered that the following maximum application rates should be adopted for Sniper™:
Pasture: 12.5 g ai/ha per application  
Mushrooms: 10 g ai/ha per application.

4.34 Controls E7, AH1 and TR1 relate to Approved Handler and Tracking requirements. These controls have been triggered by the 9.1A classification of Sniper™. Sniper™ is only to be used for application to pasture and mushrooms. After consideration of the results from exposure modelling, the Committee considered that the risks posed by this substance to the aquatic environment are insignificant. The controls are deleted under section 77(4)(b) as the controls which would involve compliance costs, are unnecessary to manage the adverse effects which are already well managed under other controls.

4.35 Controls D4 and D5 are combined (section 77(5)) as they both relate to disposal requirements.

4.36 Controls P13 and P15 are combined (section 77(5)) as they both relate to packaging requirements, with control P15 taking effect as the most stringent control.

Additional Controls under s77A

4.37 Under section 77A of the Act, the Authority may impose as controls any obligations and restrictions that the Authority thinks fit. Before imposing a control under this section, the Authority must be satisfied that, against any other specified controls that apply to the substance:

(a) the proposed control is more effective in terms of its effect on the management, use and risks of the substance; or
(b) the proposed control is more cost-effective in terms of its effect on the management, use and risks of the substance; or
(c) the proposed control is more likely to achieve its purpose.

4.38 The following additional controls have been set for Sniper™ by the Committee:

4.39 *Sniper™ shall only be used for application to pasture and with commercial mushroom operations.*

4.40 The Committee noted that Sniper™ is specifically designed and intended to be used for control of porina grass grub and clover flea in pasture and scarid fly in commercial mushroom houses.

4.41 The Committee considered that, given the specific purpose for which Sniper™ is to be used, it is important that other potential risks do not arise from uses other than those that have been assessed. These other potential risks have not been assessed and are not provided for in the specified controls that apply to the substance. Therefore the Committee considered that a use restriction is necessary to prevent these risks from occurring.

4.42 In accordance with section 77A(4)(a) of the Act, the Committee considered that imposing a control restricting the use of Sniper™ to its intended purpose is more effective than other specified controls in terms of its effect on the management, use and risks of Sniper™.
4.43 The controls relating to stationary container systems and secondary containment, as set out in Schedules 8 and 9 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice (New Zealand Gazette Issue No 35, 26 March 2004, as amended by Issue No. 128, 1 October 2004), shall apply to this substance, notwithstanding clause 1(1) of the schedules.

4.44 The Committee noted that Sniper™ may be stored in containers up to 1000 L in volume. As a means of managing the risks associated with Sniper™ being stored in volumes greater than 250L, additional controls relating to stationary container systems and secondary containment are necessary. These provisions are currently provided in Schedules 8 & 9 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 (New Zealand Gazette of 26 March 2004, No. 35, as amended by issue No. 128, 1 October 2004).

4.45 The Committee considered that these controls are relevant to this substance, and notes that no other such controls have been specified under the Act. In accordance with section 77A(4)(a) of the Act, the Committee is satisfied that imposing these additional controls is more effective than any other specified controls in terms of their effect on the management, use and risks of Sniper™.

Recommendations

4.46 The Committee recommended that, should inappropriate or accidental use, transport or disposal of Sniper™ result in the contamination of waterways, the appropriate authorities, including the relevant iwi authorities in the region, should be notified. This action should include advising them of the contamination and the measures taken in response.

Environmental User Charges

4.47 The Committee considered that use of controls on Sniper™ is an effective means of managing risks associated with this substance. At this time no consideration has been given to whether or not environmental charges should be applied to this substance as an alternative or additional means of achieving effective risk management.

5 Decision

5.1 Pursuant to section 29 of the Act, the Committee has considered this application to import a hazardous substance made under section 28 of the Act.

5.2 The Committee is satisfied that the default controls, as varied in paragraphs 4.27 to 4.35, will be adequate to manage the adverse effects of the hazardous substance.

5.3 Having considered all the possible effects of the hazardous substance in accordance with section 29 of the Act, pursuant to clause 27 of the Methodology, based on consideration and analysis of the information provided, and taking into account the application of controls, the view of the Committee is that the substance poses negligible to low risks to the environment and to human health and safety, and it is concluded that the benefits associated with the substance outweigh the risks and costs.
5.4 In accordance with clause 36(2)(b) of the Methodology the Committee records that, in reaching this conclusion, it has applied the balancing tests in section 29 of the Act and clause 27 of the Methodology.

5.5 It has also applied the following criteria in the Methodology:
- clause 9 - equivalent of sections 5, 6 and 8;
- clause 11 – characteristics of substance;
- clause 12 – evaluation of assessment of risks;
- clause 13 – evaluation of assessment of costs and benefits;
- clause 14 – costs and benefits accruing to New Zealand
- clause 21 – the decision accords with the requirements of the Act and regulations;
- clause 22 – the evaluation of risks, costs and benefits – relevant considerations;
- clause 24 – the use of recognised risk identification, assessment, evaluation and management techniques;
- clause 25 – the evaluation of risks;
- clause 27 – risks and costs are outweighed by benefits;
- clause 33 – risk characteristics;
- clause 34 – the aggregation and comparison of risks, costs and benefits; and
- clause 35 – the costs and benefits of varying the default controls.

5.6 The application for importation and manufacture of the hazardous substance Sniper™ is thus approved, with controls as detailed in Appendix 1.

Tony Haggerty
Date 27 January 2005

Chair Hazardous Substances Committee

ERMA New Zealand Approval Code:

Sniper™: HSR000953
### Appendix 1: List of Controls that apply to Sniper™

<table>
<thead>
<tr>
<th>Control Code</th>
<th>Regulation</th>
<th>Explanation</th>
</tr>
</thead>
</table>
| T1           | 11-27       | **Limiting exposure to Sniper™**
This control relates to limiting public exposure to toxic substances through the setting of tolerable exposure limits (TELs). A TEL represents the maximum allowable concentration of a substance legally allowable in a particular environmental medium. TEL values are established by the Authority and are enforceable controls under the HSNO Act. TELs are derived from potential daily exposure (PDE) values, which in turn are derived from acceptable daily exposure (ADE)/reference dose (RfD) values.

An ADE / RfD value must be set for a toxic substance if:
- it is likely to be present in an environmental medium (air, water, soil or a surface that the substance may be deposited onto) or food or other matter that might be ingested and;
- it is a substance to which people are likely to be exposed to during their lifetime, and;
- exposure is likely to result in an appreciable toxic effect.

If an ADE/RfD value is set for a substance, a PDE for each exposure route must also be set for the substance. The PDE is a measure of the relative likelihood of a person actually being exposed to the substance through a particular exposure route given daily living patterns.

The following ADE, PDEs and TELs are set for **dilubenzuron**

<table>
<thead>
<tr>
<th>ADE</th>
<th>0.02 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDE&lt;sub&gt;food&lt;/sub&gt;</td>
<td>0.01 mg/kg bw/day</td>
</tr>
<tr>
<td>PDE&lt;sub&gt;drinking water&lt;/sub&gt;</td>
<td>0.004 mg/kg bw/day</td>
</tr>
<tr>
<td>PDE&lt;sub&gt;inhalation&lt;/sub&gt;</td>
<td>0.002 mg/kg bw/day</td>
</tr>
<tr>
<td>PDE&lt;sub&gt;dermal&lt;/sub&gt;</td>
<td>0.002 mg/kg bw/day</td>
</tr>
<tr>
<td>TEL&lt;sub&gt;air&lt;/sub&gt;</td>
<td>0.003 mg/m³</td>
</tr>
</tbody>
</table>

| T4 and E6 | 7 | **Requirements for equipment used to handle Sniper™**
Any equipment used to handle Sniper™ (eg. spray equipment) must retain and/or dispense the substance in the manner intended, i.e. without leakage, and must be accompanied by sufficient information so that this can be achieved.

| T5 | 8 | **Requirements for protective clothing and equipment**
Protective clothing/equipment must be employed when Sniper™ is being handled. The clothing/equipment must be designed, constructed and operated to ensure that the person does not come into contact with the substance and is not directly exposed to a concentration of the substances that is greater than the WES for that substance.

The person in charge must ensure that people using the protective

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1 Note: The numbering system used in this column relates to the coding system used in the ERMA New Zealand Controls Matrix. This links the hazard classification categories to the regulatory controls triggered by each category. It is available from the ERMA New Zealand website www.ermanz.govt.nz/resources and is also contained in the ERMA New Zealand User Guide to the HSNO Control Regulations.

2 These Regulations form the controls applicable to this substance. Refer to the cited Regulations for the formal specification, and for definitions and exemptions. The accompanying explanation is intended for guidance only.

3 These explanations are for guidance only. Refer to the cited Regulations for the formal specification, and for definitions and exemptions.
clothing/equipment have access to sufficient information specifying how the clothing/equipment may be used, and the requirements for maintaining the clothing/equipment.

**Restrictions on the carriage of Sniper™ on passenger service vehicles**

In order to limit the potential for public exposure to Sniper™, the following requirements are prescribed for the carriage of Sniper™ on passenger service vehicles:

- the maximum quantity per package of Sniper™ permitted to be carried on passenger service vehicles is 1L.

**Hazardous Substances (Classes 6, 8 and 9 Controls) Regulations 2001 - Ecotoxic Property Controls**

**E1 32-45 Limiting exposure to Sniper™**

This control relates to the setting of environmental exposure limits (EELs). An EEL establishes the maximum concentration of an ecotoxic substance legally allowable in a particular (non target) environmental medium (eg. soil or sediment or water), including deposition of a substance onto surfaces (eg. as in spray drift deposition).

An EEL can be established by one of three means:

- applying the default EELs specified
- adopting an established EEL
- calculating an EEL from an assessment of available eco-toxicological data.

The following EEL are set:

- Diflubenzuron, EEL Marine Water = 0.0002 mg/L water
- Diflubenzuron, EEL Fresh Water = 0.00037 mg/L water

**E2 46-48 Restrictions on use within application area**

These Regulations relate to controls on application areas. An application (target) area is an area that the person using Sniper™ either has control over or is otherwise authorised to apply the substance to. For ecotoxic substances that are intentionally released into the environment (eg. pesticides), any EEL controls will not apply within the application (target) area providing the substance is applied at a rate that does not exceed the allowed application rate. In addition, any approved handler controls (T6, Regulation 9) do not apply once the substance has been applied or laid.

In recognition of the need to limit adverse effects within the target area, Regulations have been prescribed to restrict the use of the substance within the target area. These include a requirement to set an application rate for any substance designed for biocidal action for which an EEL has been set. The application rate must not be greater than the application rate specified in the application for approval, or not greater than a rate calculated in a similar manner to that used to calculate EELs (with the proviso that the product of the uncertainty factors must not exceed 100).

The following application rates are established for Sniper™:

- Pasture: 12.5g ai/ha per application
- Mushrooms: 10 g ai/ha per application

**E5 5(2), 6 Requirements for keeping records of use**

A person using Sniper™ for the purposes of causing biocidal action must keep written records of that use if 3 kg or more of the substance is applied within 24 hours in an area where the substance is likely to enter air or water and leave the place.
<table>
<thead>
<tr>
<th>Control Code¹</th>
<th>Regulation²</th>
<th>Explanation³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>The information to be provided in the record is described in Regulation 6(1). The record must be kept for a minimum of three years following the use and must be made available to an enforcement officer on request.</td>
</tr>
</tbody>
</table>

**Hazardous Substances (Identification) Regulations 2001**

| I1 | 6, 7, 32-35, 36 (1)-(7) | **General identification requirements**  
These controls relate to the duties of suppliers and persons in charge of Sniper™ with respect to identification (essentially labelling) (Regulations 6 and 7), accessibility of the required information (Regulations 32 and 33) and presentation of the required information with respect to comprehensibility, clarity and durability (Regulations 34, 35, 36(1)-(7))  

**Regulation 6 – Identification duties of suppliers**  
Suppliers of Sniper™ must ensure it is labelled with all relevant priority identifier information (as required by Regulations 8-17) and secondary identifier information (as required by Regulations 18-30) before supplying it to any other person. This includes ensuring that the priority identifier information is available to any person handling Sniper™ within **two seconds** (Regulation 32), and the secondary identifier information available within **10 seconds** (Regulation 33).  

Suppliers must also ensure that no information is supplied with Sniper™ (or its packaging) that suggests it belongs to a class or subclass that it does not in fact belong to.  

**Regulation 7 – Identification duties of persons in charge**  
Persons in charge of Sniper™ must ensure it is labelled with all relevant priority identifier information (as required by Regulations 8 to 17) and secondary identifier information (as required by Regulations 18 to 30) before supplying it to any other person. This includes ensuring that the priority identifier information is available to any person handling Sniper™ within **two seconds** (Regulation 32), and the secondary identifier information available within **10 seconds** (Regulation 33).  

Persons in charge must also ensure that no information is supplied with Sniper™ (or its packaging) that suggests it belongs to a class or subclass that it does not in fact belong to.  

**Regulations 32 and 33 – Accessibility of information**  
All priority identifier Information (as required by Regulations 8 to 17) must be available within **2 seconds**, eg. on the label.  
All secondary identifier Information (as required by Regulations 18 to 30) must be available within **10 seconds**, eg. on the label.  

**Regulations 34, 35, 36(1)-(7) – Comprehensibility, Clarity and Durability of information**
### Control Code 1 | Regulation 2 | Explanation 3
--- | --- | ---
| | | All required priority and secondary identifiers must be presented in a way that meets the performance standards in these Regulations. In summary:
- any information provided (either written and oral) must be readily understandable and in English
- any information provided in written or pictorial form must be able to be easily read or perceived by a person with average eyesight under normal lighting conditions
- any information provided in an audible form must be able to be easily heard by a person with average hearing
- any information provided must be in a durable format ie. the information requirements with respect to clarity must be able to be met throughout the lifetime of the (packaged) substance under the normal conditions of storage, handling and use.

**I3** | 9 | **Priority identifiers for ecotoxic substances**
This requirement specifies that Sniper™ must be prominently identified as being ecotoxic.

This information must be available to any person handling Sniper™ within **two seconds** (Regulation 32) and can be provided by way of signal headings or commonly understood pictograms on the label.

**I9** | 18 | **Secondary identifiers for all hazardous substances**
This control relates to detail required for Sniper™ on the product label. This information must be accessible within **10 seconds** (Regulation 33) and could be provided on secondary panels on the product label. The following information is required:
- an indication (which may include its common name, chemical name, or registered trade name) that unequivocally identifies it, and
- enough information to enable its New Zealand importer, supplier, or manufacturer to be contacted, either in person or by telephone, and
- in the case of a substance which, when in a closed container, is likely to become more hazardous over time or develop additional hazardous properties, or become a hazardous substance of a different class or subclass, a description of each likely change and the date by which it is likely to occur.

**I11** | 20 | **Secondary identifiers for ecotoxic substances**
This control relates to the additional label detail required for ecotoxic substances. This information must be accessible within **10 seconds** (Regulation 33) and could be provided on secondary panels on the product label. The following information must be provided:
- an indication of the circumstances in which it may harm living organisms
- an indication of the kind and extent of the harm it is likely to cause to living organisms
- an indication of the steps to be taken to prevent harm to living organisms
- in the case of an ecotoxic substance of classification 9.1A, 9.1B or 9.1C, an indication of its general type and degree of hazard (eg. very toxic to aquatic life)

**I16** | 25 | **Secondary identifiers for toxic substances**
This control relates to the additional label detail required for toxic substances. This information must be accessible within **10 seconds** (Regulation 33) and could be provided on secondary panels on the product label. The following information must be provided:
<table>
<thead>
<tr>
<th>Control Code</th>
<th>Regulation</th>
<th>Explanation</th>
</tr>
</thead>
</table>
|              | 26         | **Use of Generic Names**  
This control provides the option of using a generic name to identify specific ingredients (or groups of ingredients) where such ingredients are required to be listed on the product label as specified by Regulations 19(f) and 25(e) and (f).  
(Regulations 19(f) and 25(e) and (f) specify a requirement to list on the product label, the name and concentration of any ingredient that would independently of any other ingredient, cause the substance to be classified as either 6.1A, 6.1B, 6.1C, 6.1D, 6.5, 6.6, 6.7, 6.8, 6.9, 8.2 or 8.3).  
* e.g. Diflubenzuron |
| I17          | 27         | **Use of Concentration Ranges**  
This control provides the option of providing concentration ranges for those ingredients whose concentrations are required to be stated on the product label as specified by Regulations 19(f) and 25(e) and (f).  
(Regulations 19(f) and 25(e) and (f) specify a requirement to list on the product label, the name and concentration of any ingredient that would independently of any other ingredient, cause the substance to be classified as either 6.1A, 6.1B, 6.1C, 6.1D, 6.5, 6.6, 6.7, 6.8, 6.9, 8.2 or 8.3).  
* e.g. Diflubenzuron |
| I19          | 29-31      | **Alternative information in certain cases**  
**Regulation 29 – Substances in fixed bulk containers or bulk transport containers**  
This Regulation relates to alternative ways of presenting the priority and secondary identifier information required by Regulations 8 to 25 when substances are contained in fixed bulk containers or bulk transport containers.  
Regulation 29(1) specifies that for fixed bulk containers, it is sufficient compliance if there is available at all times to people near the container, information that identifies the type and general degree of hazard of the substance.  
When class 1, 2, 3, 4 or 5 substances are contained, there is an additional requirement that information must be provided describing any steps to be taken to prevent an unintentional explosion, ignition combustion, acceleration of fire or thermal decomposition.  
Regulation 29(2) specifies that for bulk transport containers, it is sufficient compliance if the substance is labelled or marked in compliance with the requirements of the Land Transport Rule 45001, Civil Aviation Act 1990 or Maritime Transport Act 1994.  
**Regulation 30 – Substances in multiple packaging**  
This Regulation relates to situations when hazardous substances are in multiple packaging and the outer packaging obscures some or all of the
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<tr>
<th>Control Code</th>
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<tr>
<td>I21</td>
<td>37-39, 47-50</td>
<td>Documentation required in places of work</td>
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These controls relate to the duties of suppliers and persons in charge of places of work with respect to provision of documentation (essentially Material Safety Data Sheets) (Regulations 37, 38 and 50); the general content requirements of the documentation (Regulation 39 and 47); the accessibility and presentation of the required documentation with respect to comprehensibility and clarity (Regulation 48).

These controls are triggered when Sniper™ held in the workplace in quantities equal to or greater than 1L.

Regulation 37 – Documentation duties of suppliers
A supplier must provide documentation containing all relevant information required by Regulations 39 to 48 when selling or supplying to another person a quantity of Sniper™ equal to or greater than 1L, if the substance is to be used in a place of work and the supplier has not previously provided the documentation to that person.

Regulation 38 – Documentation duties of persons in charge of places of work
The person in charge of any place of work where Sniper™ is present in quantities equal to or greater than 1L, must ensure that every person handling the substance has access to the documentation required for each hazardous substance concerned. The person in charge must also ensure that the documentation does not contain any information that suggests that the substance belongs to a class or subclass it does not in fact belong to.

Regulation 39 – General content requirements for documentation
The documentation provided with Sniper™ must include the following information:
- the unequivocal identity of the substance (eg. the CAS number, chemical name, common name, UN number, registered trade name(s))
- a description of the physical state, colour and odour of the substance
- if the substance’s physical state may alter over the expected range of
Control Code | Regulation | Explanation
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|  |  | workplace temperatures, the documentation must include a description of the temperatures at which the changes in physical state may occur and the nature of those changes.
- in the case of a substance that, when in a closed container, is likely to become more hazardous over time or develop additional hazardous properties, or become a hazardous substance of a different class, the documentation must include a description of each likely change and the date by which it is likely to occur
- contact details for the New Zealand supplier/manufacturer/importer
- all emergency management and disposal information required for the substance
- the date on which the documentation was prepared
- the name, concentration and CAS number of any ingredients that would independently of any other ingredient, cause the substance to be classified as either a class 6.1A, 6.1B, 6.1C, 6.5, 6.6, 6.7, 6.8, 6.9, 8.2 or 8.3. e.g. Diffubenzuron

Regulation 47 – Information not included in approval
This Regulation relates to the provision of specific documentation information (eg. as provided on an MSDS). If information required by Regulations 39 to 46 was not included in the information used for the approval of the substance by the Authority, it is sufficient compliance with those Regulations if reference is made to that information requirement along with a comment indicating that such information is not applicable to that substance.

Regulation 48 – Location and presentation requirements for documentation
All required documentation must be available to a person handling the substance in a place of work within 10 minutes. The documentation must be readily understandable by any fully-trained worker required to have access to it and must be easily read, under normal lighting conditions, at a distance of not less than 0.3m.

Regulation 49 – Documentation requirements for vehicles
This Regulation provides for the option of complying with documentation requirements as specified in the various Land, Sea and Air transport rules when the substance is being transported.

Regulation 50 – Documentation to be supplied on request
Notwithstanding Regulation 37 above, a supplier must provide the required documentation to any person in charge of a place of work (where a hazardous substance is present) if asked to do so by that person.

I23 | 41 | **Specific documentation requirements for ecotoxic substances**
The documentation provided with Sniper™ must include the following information:
- its general degree and type of ecotoxic hazard (eg. highly ecotoxic to terrestrial vertebrates)
- a full description of the circumstances in which it may harm living organisms and the extent of that harm
- a full description of the steps to be taken to prevent harm to living organisms
- a summary of the available acute and chronic (ecotox) data used to define the (ecotox) subclass or subclasses in which it is classified
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<th>Explanation</th>
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|              |            | • its bio-concentration factor or octanol-water partition coefficient  
|              |            | • its expected soil or water degradation rate  
|              |            | • any EELs set by the Authority.  
|              |            | **Diflubenzuron, EEL Marine Water = 0.0002 mg/L water**  
|              |            | **Diflubenzuron, EEL Fresh Water = 0.00037mg/L water**  
| I28          | 46         | **Specific documentation requirements for toxic substances**  
|              |            | The documentation provided with Sniper™ must include the following information:  
|              |            | • its general degree and type of toxic hazard  
|              |            | • a full description of the circumstances in which it may harm human beings  
|              |            | • the kinds of harm it may cause to human beings  
|              |            | • a full description of the steps to be taken to prevent harm to human beings  
|              |            | • if it is a gas or an aerosol, its vapour pressure, and the temperature at which that pressure was measured  
|              |            | • if it will be a liquid during its use, the percentage of volatile substance in the liquid formulation, and the temperature at which the percentages were measured  
|              |            | • a summary of the available acute and chronic (toxic) data used to define the (toxic) subclass or subclasses in which it is classified  
|              |            | • the symptoms or signs of injury or ill health associated with each likely route of exposure  
|              |            | • the dose, concentration, or conditions of exposure likely to cause injury or ill health  
|              |            | • any TELs or WESs set by the Authority.  
|              |            | **e.g. Diflubenzuron, TEL air = 0.003 mg/m³**  
| I29          | 51-52      | **Duties of persons in charge of places with respect to signage**  
|              |            | These controls specify the requirements for signage, in terms of content, presentation and positioning at places where Sniper™ is held in quantities exceeding 100L.  
|              |            | Signs are required:  
|              |            | • at every entrance to the building and/or location (vehicular and pedestrian) where hazardous substances are present  
|              |            | • at each entrance to rooms or compartments where hazardous substances are present  
|              |            | • immediately adjacent to the area where hazardous substances are located in an outdoor area.  
|              |            | The information provided in the signage needs to be understandable over a distance of 10 metres and be sufficient to:  
|              |            | • advise that the location contains hazardous substances  
|              |            | • describe the general type of hazard of each substance (e.g. flammable)  
|              |            | • where the signage is immediately adjacent to the hazardous substance storage areas, describe the precautions needed to safely manage the substance (e.g. a 'No Smoking' warning near flammable substances).  

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### Hazardous Substances (Packaging) Regulations 2001

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<tr>
<th>P1</th>
<th>5, 6, 7 (1), 8</th>
<th><strong>General packaging requirements</strong></th>
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<td></td>
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<td>These controls relate to the ability of the packaging to retain its contents, allowable packaging markings with respect to design approvals, factors affecting choice of suitable packaging, and compatibility of the substance with any previous contents of the packaging.</td>
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</table>

**Regulation 5 – Ability to retain contents**

Packaging for all hazardous substances must ensure that, when the package is closed, there is no visible release of the substance, and that it maintains its ability to retain its contents in temperatures from $-10^\circ C$ to $+50^\circ C$. The packaging must also maintain its ability to retain its remaining contents if part of the contents is removed from the package and the packaging is then re-closed. The packaging in direct contact with the substance must not be significantly affected or weakened by contact with the substance such that the foregoing requirements cannot be met.

**Regulation 6 – Packaging markings**

Packages containing hazardous substances must not be marked in accordance with the UN Model Regulations unless:

- the markings comply with the relevant provisions of that document, and
- the packaging complies with the tests set out in Schedule 1, 2 or 3 (Packaging Regulations) respectively, and
- the design of the packaging has been test certified as complying with those tests.

**Regulation 7(1) – Requirements when packing hazardous substance**

- When packing any hazardous substance, account must be taken of its physical state and properties, and packaging must be selected that complies with the requirements of Regulation 5, and Regulations 9 to 21.

**Regulation 8 – Compatibility**

Hazardous substances must not be packed in packaging that has been previously packed with substances with which it is incompatible unless all traces of the previous substance have been removed.

**Regulation 9A and 9.B – Large Packaging**

Large packaging may be used to contain hazardous substances in New Zealand if it has been constructed, marked and tested as a large package as provided in Chapter 6.6 of the 13th revised edition of the UNRTDG, 2003. “Large Packaging” does not include:

- a tank, tank wagon or transportable container (as defined in the Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004, or
- a stationary container system, a stationary tank or a tank (as defined in the Hazardous substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004.

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<tr>
<th>P3</th>
<th>9</th>
<th><strong>Packaging requirements Sniper™ packed in limited quantities</strong></th>
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<td></td>
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<td>When Sniper™ is packaged in quantities less than 5L, there is provision for it to be packaged to a lesser performance standard than normally required (as specified in Schedule 4 of the Packaging Regulations).</td>
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<tr>
<th>P13 and P15</th>
<th>19 and 21</th>
<th><strong>Packaging requirements for Sniper™</strong></th>
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<tr>
<td></td>
<td></td>
<td>The packaging requirements for Sniper™ is as follows:</td>
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</table>
- Sniper™ in quantities of more than 5 L must be packaged according to Schedule 3 (UN PGIII), but may be packaged according to either Schedule 3 or Schedule 4 when in quantities equal to or less than 5L.

If Sniper™ is offered for sale in a package of less than 2.5L or 2.5kg it must be in child resistant packaging (ie. toxic substances liable to be in homes). However, if it is for use in a place of work to which children do not have access, this requirement is not mandatory.

**PG3 Schedule 3**
This schedule describes the (minimum) packaging requirements that must be complied with for this substance. The tests in Schedule 3 correlate to the packaging requirements of UN Packing Group III (UN PGIII).

**PS4 Schedule 4**
This schedule describes the (minimum) packaging requirements that must be complied with for this substance.

### Hazardous Substances (Disposal) Regulations 2001

**D4 and D5 8 and 9**
**Disposal requirements for Sniper™**
Sniper™ must be disposed of by:
- treating the substance so that it is no longer a hazardous substance, including depositing the substance in a landfill, incinerator or sewage facility. However, this does not include dilution of the substance with any other substance prior to discharge to the environment; or
- discharging the substance to the environment provided that after reasonable mixing, the concentration of the substance in any part of the environment outside the mixing zone does not exceed any TEL (tolerable exposure limit) or EEL (environmental exposure limit) set by the Authority for that substance; or
  - Diflubenzuron, TEL air = 0.003 mg/m³
  - Diflubenzuron, EEL Marine Water = 0.0002 mg/L water
  - Diflubenzuron, EEL Fresh Water = 0.00037mg/L water
- exporting the substance from New Zealand as a hazardous waste.

**D6 10**
**Disposal requirements for packages**
This control gives the disposal requirements for packages that contained Sniper™ and are no longer to be used for that purpose. Such packages must be either decontaminated/treated or rendered incapable of containing any substance (hazardous or otherwise) and then disposed of in a manner that is consistent with the disposal requirements for the substance. In addition, the manner of disposal must take into account the material that the package is manufactured from.

**D7 11, 12**
**Disposal information requirements**
These controls relate to the provision of information concerning disposal (essentially on the label) that must be provided when selling or supplying a quantity of Sniper™ that exceeds 0.1L.

Information must be provided on appropriate methods of disposal and information may be supplied warning of methods of disposal that should be avoided, i.e. that would not comply with the Disposal Regulations. Such information must be accessible to a person handling the substance within 10 seconds and must comply with the requirements for comprehensibility, clarity and durability as described in Regulations 34-36 of the Identification Regulations (code I1).

**D8 13, 14**
**Disposal documentation requirements**
These controls relate to the provision of documentation concerning disposal (essentially in a MSDS) that must be provided when selling or supplying a quantity of Sniper™ that exceeds 1L.

The documentation must describe one or more methods of disposal (that...
comply with the Disposal Regulations) and describe any precautions that must be taken. Such documentation must be accessible to a person handling the substance at a place of work within 10 minutes and must comply with the requirements for comprehensibility and clarity as described in Regulations 48(2), (3) and (4) of the Identification Regulations (code I21).

**Hazardous Substances (Emergency Management) Regulations 2001**

| EM1  | 6, 7, 9-11 | **Level 1 emergency management information: General requirements**  
These controls relate to the provision of emergency management information (essentially on the label) that must be provided with Sniper™ when present in quantities equal to or greater than 0.1L.  
Regulation 6 describes the duties of suppliers, Regulation 7 describes the duties of persons in charge of places, Regulation 9 describes the requirement for the availability of the information (10 seconds) and Regulation 10 gives the requirements relating to the presentation of the information with respect to comprehensibility, clarity and durability. These requirements correspond with those relating to secondary identifiers required by the Identification Regulations (code I1, Regulations 6, 7, 32–35, 36(1)-(7)).  
Regulation 11 provides for the option of complying with the information requirements of the transport rules when the substance is being transported. |

| EM6  | 8(e) | **Information requirements for toxic substances**  
The following information must be provided when Sniper™ is present in quantities equal to or greater than 0.1L:  
- a description of the first aid to be given  
- a 24-hour emergency service telephone number. |

| EM7  | 8(f) | **Information requirements for ecotoxic substances**  
The following information must be provided with Sniper™ when present in quantities equal to or greater than 0.1L.  
- a description of the parts of the environment likely to be immediately affected by it:  
- a description of its typical effects on those parts of the environment  
- a statement of any immediate actions that may be taken to prevent the substance from entering or affecting those parts of the environment. |

| EM8  | 12-16, 18-20 | **Level 2 emergency management information requirements**  
These controls relate to the duties of suppliers and persons in charge of places of work with respect to the provision of emergency management documentation (essentially Material Safety Data Sheets). This documentation must be provided where Sniper™ is sold or supplied, or held in a workplace, in quantities equal to or greater than 1L.  
Regulations 12 and 13 describe the duties of suppliers, regulation 14 describes the duties of persons in charge of places of work, regulation 15 provides for the option of complying with documentation requirements of the transport rules when the substance is being transported, and regulation 16 specifies requirements for general contents of the documentation.  
Regulation 18 prescribes location and presentation requirements for the documentation, i.e. it must be available within 10 minutes, be readily understandable, comprehensible and clear. These requirements correspond with those relating to documentation required by the Identification regulations (code I21). |

| EM11 | 25-34 | **Level 3 emergency management requirements – emergency response plans**  
These Regulations relate to the requirement for an emergency response plan |
to be available at any place (excluding aircraft or ships) where Sniper™ is held (or reasonably likely to be held on occasion) in quantities greater than 100L.

The emergency response plan must describe all of the likely emergencies that may arise from the breach or failure of controls. The type of information that is required to be included in the plan is specified in Regulations 29 to 30. Requirements relating to the availability of equipment, materials and people are provided in Regulation 31, requirements regarding the availability of the plan are provided in Regulation 32 and requirements for testing the plan are described in Regulation 33.

**Level 3 emergency management requirements – secondary containment**

These Regulations relate to the requirement for a secondary containment system to be installed at any fixed location where Sniper™ is held in quantities equal to or greater than 100L.

Regulation 37 prescribes requirements for places where hazardous substances are held above ground in containers each holding up to 60L or less. Regulation 38 prescribes requirements for places where hazardous substances are held above ground in containers each holding between 60L and 450L. Regulation 39 prescribes requirements for places where hazardous substances are held above ground in containers each holding more than 450L. Regulation 40 prescribes requirements for places where hazardous substances are held underground. Regulation 41 prescribes requirements for secondary containment systems that contain substances of specific hazard classifications, eg. there is a requirement to prevent substances from coming into contact with incompatible materials, and a requirement to exclude energy sources when class 1, 2, 3, 4 or 5 substances are contained).

**Level 3 emergency management requirements – signage**

This control relates to the provision of emergency management information on signage at places where Sniper™ is held at quantities equal to or greater than 100L.

The signage must advise of the action to be taken in an emergency and must meet the requirements for comprehensibility and clarity as defined in Regulations 34 and 35 of the Identification Regulations.

**Additional Controls under section 77A**

The controls relating to stationary container systems and secondary containment, as set out in Schedules 8 and 9 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice (New Zealand Gazette Issue No 35, 26 March 2004, as amended by Issue No. 128, 1 October 2004), shall apply to this substance, notwithstanding clause 1(1) of the schedules.

**Sniper™ shall only be used for application to pasture and with commercial mushroom operations.**