

ENVIRONMENTAL RISK MANAGEMENT AUTHORITY  
 NGĀ KAIWHAKATŪPATO WHAKARARU TAIAO



## FORM HS1

**Application for approval to**

**IMPORT OR MANUFACTURE ANY HAZARDOUS  
 SUBSTANCE FOR RELEASE**

**under section 28 of the  
 Hazardous Substances and New Organisms Act  
 1996**

**Name of Substance: Canyon**

**Applicant: NZ Crop Care Ltd**

**Office use only**

Application Code:         Date received: \_\_\_\_/\_\_\_\_/\_\_\_\_

ERMA NZ Contact: \_\_\_\_\_ Initial Fees Paid: \$

Application Version No: \_\_\_\_\_.

## Section One – Applicant Details

See comments under “Section One of Application Form” in the User Guide for guidance.

### 1.1 Name and postal address in New Zealand of the organisation making the application:

**Name:** New Zealand Crop Care Ltd  
**Address:** P O Box 195 Pukekohe  
**Phone:** 09 238 0449  
**Fax:** 09 228 0428

### 1.2 The applicant’s location address in New Zealand (if different from above):

**Address:** 164 Manukau Road, Pukekohe.

### 1.3 Name of the contact person for the application:

This person should have sufficient knowledge to respond to queries and either have the authority to make decisions on behalf of the applicant that relate to processing the application, or have the ability to go to the appropriate authority.

**Name:** Mark Freeman  
**Position:** Managing Director  
**Address:** P O Box 195 Pukekohe  
**Phone:** 09 238 0449  
**Fax:** 09 228 0428  
**Email:** markjohnz@yahoo.co.nz

## Section Two – Application Type and Related Approvals Required

This form is only to be used for an application to import and/or manufacture a hazardous substance for ‘release’ and if it does not meet the requirements for rapid assessment. Please note that it is the substance(s) which is approved, and thus the approval covers both import and manufacture.

If you are making the application for some other reason, you will need a different form.

### 2.1 Is the information in this application relevant to import, manufacture or both:

(See comments under “Section 2.1 of Form” in the User Guide)

- |  |     |
|--|-----|
| • Import only?   | Yes |
| • Manufacture only?  | No  |
| • Import and manufacture?  | No  |
| • If import only, indicate whether or not manufacture is likely in New Zealand | No  |

### 2.2 If the information in the application relates to manufacture in New Zealand, provide information on the proposed manufacturing process and any alternatives.

(See comments under “Section 2.2 of Form” in the User Guide)

### 2.3 If you have reasons for not providing detailed information in this application, explain what they are and provide some justification.

An example of a reason for not giving detailed information is where an approval has been given by another jurisdiction and information that led to that approval can be referenced or the substance will be used in low risk situations or ways.

(See comments under “Section 2.3 of Form” in the User Guide)

### 2.4 If this substance(s) needs an approval under any other legislation, has an application for this approval been made?

**(Optional)** (See comments under “Section 2.4 of Form” in the User Guide)

Name of Approval	Application made
Agricultural Compounds and Veterinary Medicines Act 1997	Yes
Food Act 1981	NA
Medicines Act 1981	NA
Chemical Weapons (Prohibition) Act 1996	NA
Radiation Protection Act 1965	NA
Biosecurity Act 1993	NA
Resource Management Act 1991	NA
Other (please specify):	NA

## Section Three – Information on the Substance(s)

Note all information that is commercially sensitive must be attached as an Appendix. The application form should be cross-referenced to the Appendix but should be able to be read as a stand-alone document which will be publicly available.

You will need to provide a brief description of where the information in the application has been sourced from, eg from; inhouse data, research, technical literature, etc. See the introductory comments under “Section Three of the Form” in the User Guide for more details.

If approval is being sought for more than one hazardous substance, this section must be completed separately for each hazardous substance.

### 3.1 State the unequivocal identification of the substance(s).

This section should include all information necessary to unequivocally identify the substance(s) and may include:

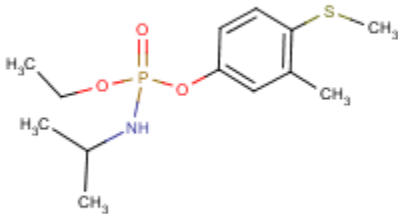
- Chemical Name (Chemical Abstracts Preferred Index name or IUPAC name)
- Common Name
- Synonyms
- Trade Names
- CAS Registry Number
- Molecular Formula
- Structural Formula
- Significant impurities

For mixtures, in addition to the above information being provided on the actual mixture, information is also required on the composition of the mixture ie the chemical name, CAS number, function (eg active ingredient, emulsifier, surfactant, filler) and percentages of **ALL** components of the mixture (including non-hazardous components and impurities) should be provided. This information may be best expressed in tabular form. If the composition is variable, please ensure to state the limits.

If there are commercial reasons for not providing full information in the main part of the form, alternative approaches must be discussed with and agreed by ERMA New Zealand. These must include the provision of a unique identifier of some kind.

(See comments under “Section 3.1 of Form” in the User Guide)

### Identity of the Substance.

Common name	fenamiphos
Chemical name (IUPAC)	ethyl 4-methylthio-m-tolyl isopropylphosphoramidate
CAS Number	22224-92-6
C.A. name	ethyl 3-methyl-4-(methylthio)phenyl (1-methylethyl)phosphoramidate
Structure	
Molecular formula	C <sub>13</sub> H <sub>22</sub> NO <sub>3</sub> PS
Molecular weight	303.4
Minimum Purity of active substance	920 g/kg

The significant impurities are provided in the Confidential section.

#### 3.2 Provide information on the chemical and physical properties of the substance(s).

Provide as much information as possible on the chemical and physical properties of the substance(s) [at 20°C and 1 atmosphere unless otherwise stated] eg

- Appearance (colour, odour, physical state or form)
- pH
- Density
- Vapour pressure
- Boiling/melting point
- Solubility in water
- Water/octanol partitioning co-efficient

For mixtures, information is required on the chemical and physical properties of the mixture itself. However, if this information is not available, you should provide information on the chemical and physical properties of EACH hazardous component of the mixture

(See comments under “Section 3.2 of Form” in the User Guide)

## Substance Chemical & Physical Properties.

Appearance	Clear yellow liquid with aromatic odour
pH	5.0 – 6.0 (1 % in water)
Density	1.05 g/ml at 20 °C
Vapour pressure (a.i.)	0.12 mPa at 20 °C
Boiling point	Not available
Solubility in water	Emulsifies in water
K <sub>ow</sub> (a.i.)	logP=3.3 at 20 °C

### 3.3 Provide information on the hazardous properties of the substance(s).

Information should be provided on the hazardous properties of the substance(s) known to the applicant. You must consider each of the six hazardous properties below and provide information on those hazardous properties that trigger any threshold level. If you wish, you may assign the relevant HSNO classification category to each hazardous property that exceeds these threshold levels.

- explosiveness
- flammability
- oxidising properties
- corrosiveness
- toxicity
- ecotoxicity

If your substance is a mixture and you cannot provide direct information on its hazardous properties, you can apply mixture rules to the hazardous components of the mixture. If you do this, then you will need to provide information on the hazardous properties of each hazardous component of the mixture, and show your workings.  
(See comments under “Section 3.3 of Form” in the User Guide).

### Proposed Hazard Classification.

3.1C, 6.1B, 6.3B, 6.9A, 8.3A, 9.1A, 9.2B, 9.3A, 9.4A

Hazardous Property Classification	Canyon
Flammability	3.1C
Toxicity	6.1B
Skin Irritation	6.3B
Target Organ Systemic	6.9A
Corrosive Eye	8.3A
Aquatic Toxicity	9.1A
Soil Toxicity	9.2B
Terrestrial Vertebrate Toxicity	9.3A
Terrestrial Invertebrate Toxicity	9.4A

Canyon triggers a range of hazards.

### 3.4 Identification of the default Controls on the substance(s).

A range of default controls are triggered by the hazardous property classification(s) attached to the substance. If you wish, you can list what these default controls are. If you don't provide this information, ERMA New Zealand will do it for you. Regardless, you need to be aware of what the default controls are so that you can take them into account when assessing risks – see Section 4. **(Optional)** (See comments under “Section 3.4 of Form” in the User Guide)

Hazard	Controls
Flammable	F1, F2, F3, F5, F6, F11, F12, F14, F16, F17
Toxic	T1, T2, T3, T4, T5, T6, T7, T8
Ecotoxic	E1, E2, E3, E4, E5, E6, E7, E8
Identification	I1, I2, I3, I5, I8, I9, I10, I11, I13, I16, I17, I18, I19, I20, I21, I22, I23, I25, I28, I29, I30
Packaging	P1, P3, P5, P13, P14, P15
Packaging Group	PG2
Disposal	D2, D4, D5, D6, D7, D8
Emergency Management	EM1, EM2, EM4, EM6, EM7, EM8, EM9, EM10, EM11, EM12, EM13
Approved Handler	AH1
Tracking	TR1

### 3.5 Provide information on what will happen to the substance throughout its whole life from its introduction into New Zealand, its uses, through to disposal.

This information is used in the development of exposure scenarios and the assessment of risks, costs and benefits and should therefore be as expansive as possible. (See comments under “Section 3.5 of Form” in the User Guide)

## PRODUCT LIFE CYCLE

### Manufacture and Importation.

The product will be manufactured overseas and then shipped to New Zealand, fully formulated in 200 litre containers. The containers will be transported by road by experienced transport providers and held in a secure store with the required signage.

### Repackaging.

The 200 litre containers will be repackaged into 20 litre fluorinated HDPE fully labelled containers at Chemsafe Group Ltd in Pukekohe.

### Storage.

The 20 litre containers will be held in a secure store with the required signage at 164 Manukau Road, Pukekohe.

### Transport.

Product in 20 litre containers may be sold to either Commercial growers or other Re-sellers who will on sell to commercial growers. Safety Data Sheets and Emergency Procedure Guides will be available. Re-sellers and growers are obliged to store the product as directed. Any movement by road of the product is required to comply with any transport regulations that apply.

**Intended Use of the Product.**

Canyon is a nematicide for the control of nematodes in a range of crops and is intended to be applied to the soil in a wide dispersive manner by commercial growers and applicators. Application will be by calibrated ground equipment. Application by aircraft is not envisaged nor recommended.

For soil application, a measured quantity of Canyon should be added to a partially filled spray tank. The tank will then be filled to the required volume and then applied. The application rate varies between 20 to 25 l/ha depending on the crop (8 – 10 kg/ha/a.i.). Canyon may be incorporated mechanically into the soil profile prior to planting of the crop.

Canyon may also be applied as a root dip/drench. For the dip/drench treatment, Canyon is added to a container of water at the rate of 40 ml Canyon per 10 litres water. Kiwifruit plants have their roots dipped in this solution for 1 hour prior to planting.

**Spray Drift**

Canyon is ecotoxic to aquatic organisms, the soil and toxic to both terrestrial vertebrates and terrestrial invertebrates. Care should be taken to avoid drift away from the target area.

**Disposal.**

Canyon should be disposed of according to label directions. Applying the product according to label directions is the best method of “disposal”. Nowadays, users of agrichemicals seldom purchase more product than required for one season. Most users will purchase on a monthly basis after determining stocks on hand and the requirements for that month. Therefore, disposal of unwanted product is very unlikely to occur. If disposal is required, then product can be sent to the council collection point for incineration at Trans Pacific.

Containers should be triple rinsed (with the rinsate added to the spray tank) and label directions followed regarding container disposal;

- Burn rinsed container if circumstances, especially wind direction, are suitable.
- Bury in suitable landfill.
- Use Agrecovery sites.

## Section Four: Risks, Costs and Benefits

These are the positive and adverse effects referred to in the HSNO Act. It is easier to regard risks and costs as being adverse (or negative) and benefits as being positive. In considering risks, cost and benefits, it is important to look at both the likelihood of occurrence (probability) and the potential magnitude of the consequences, and to look at distribution effects (who bears the costs, benefits and risks).

You will need to consider the effects on the environment and human health and welfare, including any social effects.

In each section set out below, it might be easier for you, and most useful for ERMA New Zealand, if the information is set out under the following three sub sections:

- Costs and benefits which can be stated in monetary (dollar) terms
- Non-monetary risks and costs
- Non-monetary benefits.

Complete this section as far as you can. If the analysis provided is incomplete, then it will be completed by ERMA New Zealand. However, the costs of doing this will be chargeable.

You will need to provide a brief description of where the information in the application has been sourced from, eg from; inhouse research, independent research, technical literature, community or other consultation.

(See comments under “Section 4 of Form” in the User Guide)

### 4.1 Identify all of the potential risks, costs and benefits of the substance(s)

Identification is the first step in assessing risks, costs and benefits. The introductory part of “Section 4 of Form” in the user Guide provides detailed guidance on what kinds of costs, risks and benefits should be thought about. It is important to think about the source of the risk, ie the way in which the risk is created (the exposure pathway), and then the consequences and likelihood of exposure.

You should try to think as widely as possible about every potential risk, cost and benefit and give a brief description. The range of matters that you will need to think about is discussed in the User Guide. You must also decide how significant that risk, cost or benefit is likely to be. If the risk, cost, or benefit is obviously not significant (and you can give reasons), then there is no need to further assess that risk, cost, or benefit.

(See comments under “Section 4.1 of Form” in the User Guide)

The active ingredient fenamiphos is present in various existing substances that have been registered under the HSNO Act. Canyon will be imported as the finished product but will be repacked into smaller user friendly containers at a secure location. The active substance and its components are already in use in commercial crop production in New Zealand.

### Risks Identification

The risks can be divided between Human Health Risks and Environmental Risks.

1. Human Health Risks

- a. Occupational exposure (transport, storage, re-packing) – could occur through
    - i. Spillage.
    - ii. Leakage.
    - iii. Fire.
  - b. Worker exposure could occur during the application phase through
    - i. Spillage or leakage.
    - ii. Contact with undiluted product during measuring and mixing.
    - iii. Contact with diluted product during application and clean up.
    - iv. Contact with diluted product in crop prior to drying.
  - c. Public exposure could occur
    - i. During the application phase.
    - ii. Through residues in target food crops.
    - iii. Through residues in non target food crops.
    - iv. Spillage during transport.
    - v. Fire.
2. Environmental Risks
- a. Air.
    - i. Spray drift.
    - ii. Fire.
  - b. Soil.
    - i. Spray drift.
    - ii. Spillage/leakage.
  - c. Water.
    - i. Spray drift.
    - ii. Spillage/leakage.
  - d. Native Flora and Fauna.
    - i. Spray drift.
    - ii. Spillage.

## Costs

The introduction of Canyon to New Zealand should not create any additional costs that are not already associated with similar products. Currently, some similar products are manufactured in New Zealand and others are imported in finished containers.

## Benefits

1. Canyon is a valuable nematicide used for the control of nematodes in a range of crops.
2. Growers benefit from increased yields.
3. Consumers benefit from higher quality produce.
4. New Zealand benefits from being able to export high quality produce to various countries.
5. Growers will also benefit from increased competition/alternatives, thereby decreasing their input costs.
6. Continuity of supply is increased with another source.
7. Consumers may benefit from lower produce prices.
8. Some employment is provided in New Zealand due the product being re-packed in to smaller containers.
9. NZ Crop Care Ltd is a New Zealand Company – profits are retained in New Zealand.

**4.2 Provide an assessment of those risks, costs, and benefits identified in Section 4.1 which might be significant.**

This section excludes risks, costs, and benefits which relate specifically to Māori taonga or to international agreements. See Sections 4.3 and 4.4 below for those aspects.

Assessments only need to be done for those risks, costs and benefits which Section 4.1 shows might be significant. Section 4.2 in the User Guide provides a detailed explanation of how to do an assessment. Remember that assessments can be qualitative ie based on judgements, if there is no analytical information available. But it is essential that a firm conclusion is drawn about the size and likelihood of the risks, costs or benefits, and also about the certainty of the assessment.

In assessing risks especially, it is important to take account of the extent to which risks will be reduced by the default or other controls (see Section 3.4 above and 4.5 below). (See comments under “Section 4.2 of Form” in the User Guide)

**Risk Assessment.**

1. **Spillage** from containers could occur at any stage of the life cycle due to an accident during transport, re-packing, storage, application and disposal. This could have an adverse impact on human health, the aquatic environment, soil environment and the terrestrial environment. The risk of these events occurring is unlikely and are all localised/site specific in terms of the distribution of effects. The containers meet the requirements for these types of substances, thereby minimising the possibility of spillage. Overall, the risks from spillage can be described as minimal with very short term effects.
  - a. Transport over sea and transport from the wharf and between the re-packing site and retail store pose the greatest risk to both human health and environmental contamination in terms of spillage due to the volume of product being carried.. However, sea transport, transport from the wharf and transport between the store and re-packing site should occur once a year only. Transport will be conducted by experienced operators (in transport of hazardous goods) well versed with emergency procedures, load distribution, segregation, signage, manifests etc. The use of public passenger vehicles is not envisaged. Transport from the retail store to the grower may be via a retailer vehicle or a grower vehicle. This phase of transport will be with less quantities, thereby reducing the risk of human exposure and environmental contamination. requirements in terms of signage, manifests, segregation will be complied with. The risks of adverse events on human health and the environment are minimal, site specific with very short term effects if spillage occurs during transport.
  - b. Re-packing will occur at a designated site specific for purpose. Site design and procedures will make spillage unlikely and personnel are trained to minimise adverse effects if it did occur. Staff are also provided with and wear the appropriate safety gear when handling the material. Re-packing should occur once a year only. The public are excluded from the re-packing area. The risks of adverse events on human health and the environment are minimal, site specific with very short term effects if spillage occurs during re-packing.
  - c. Storage. The product will be stored in buildings that meet the requirements for these substances (bundling/signage/segregation/manifests etc). Staff are trained in storage/stacking/segregation and procedures to deal with adverse events if they occur. The public are excluded from the storage area. The risks of adverse events on human health and the environment are minimal, site specific with very short term effects if spillage occurs during storage.

- d. Application is likely to be carried out by operators who are GROS SAFE certified with the required knowledge of all aspects of application, transport and storage of these substances. The label contains information on the safety gear that should be used whilst mixing and applying this product. Applicators handle up to two 20 litre containers at any stage during the application phase depending on the area to be sprayed. Therefore, the effects of any spillage are minimal. The risks of adverse events on human health and the environment are minimal, site specific with very short term effects if spillage occurs during application.
  - e. Disposal. The best method of disposal is to use the product according to the label. Disposal/destruction of the undiluted product is not envisaged. Containers should be triple rinsed with the rinsate added to the spray tank. Containers can then be disposed of according to the label directions. The risks of adverse events on human health and the environment are minimal, site specific with very short term effects if spillage occurs during disposal.
2. **Leaks.** All containers meet the requirements for these types of substances, thereby minimising the possibility of leaks occurring. The risks of adverse events on human health and the environment are minimal, site specific with very short term effects if leaks occur at any stage of the life cycle.
  3. **Fire.** Canyon has a classification of 3.1C – a flammable liquid. Emergency Procedure Guides and Safety Data Sheets provide information regarding requirements for transport and storage of this product. This also includes segregation and fire fighting information. This should minimise adverse effects from any fire to human health and the environment.
  4. **Application.** Application is likely to be carried out by operators who are GROS SAFE certified with the required knowledge of all aspects of application, transport and storage of these substances. Correct measurement of the substance, correct application and the observance of the withholding periods will ensure the Maximum Residue Limits are not exceeded. Applicators are aware of the requirements to avoid spray drift and take into consideration the weather (especially wind), the use of correct nozzles and spray pressures to minimise spray drift. This should preclude/minimise drift off the target area. They also are aware of the need to place signs indicating that spraying is being conducted. The public are generally excluded from the area when spraying is being conducted. The risks of adverse events occurring to human health and the environment from incorrect application are low, generally site specific and short term.

### **Cost Assessment.**

Costs could arise from spillage or fire during transport, re-packing and storage through disposal of contaminated soil and water. The magnitude of these costs would depend on the quantities of material involved and the distance from the accident site to a suitable landfill.

### **Benefit Assessment.**

The introduction of Canyon to New Zealand will provide additional competition to the market leading to a lower cost structure for growers that may be passed on to consumers. As an additional source of product, continuity of supply is strengthened allow growers to produce high quality crops for domestic use and export sales.

**4.3 Provide an assessment of any particular risks, costs and benefits which arise from the relationship of Māori and their culture and traditions with their taonga, or which are, for other reasons, of particular relevance to Māori.**

We have asked for a separate response in this area because these requirements are different to other risks, costs and benefits. These are explained in more detail in Section 4.3 of the User Guide. Please note that if there are potentially significant risks in this area, it will almost certainly be necessary to consult with Māori in preparing an assessment. (See comments under “Section 4.3 of Form” in the User Guide)

Canyon should have no adverse impact on Maori culture, traditions or taonga. Similar products are already in use in New Zealand and have had no adverse impact on Maori.

**4.4 Provide an assessment of any risks, costs or benefits to New Zealand’s international obligations.**

This is a specialist area which ERMA New Zealand will handle. However, any information you are able to provide on relevant international agreements would help us and save time and cost.

**(Optional)** (See comments under “Section 4.4 of Form” in the User Guide)

We are not aware of any international obligations for this product.

**4.5 Provide information on the proposed management of the substance.**

This section should provide information on managing the effects identified and assessed in Sections 4.1 - 4.4 above. The starting point for this is the range of default controls triggered by the hazardous property classification(s) attached to the substance (see Section 3.4). You should describe how these controls would be implemented and indicate other mean of managing risks.. The information provided must be specific to the substance(s) and cover all areas of intended use. Reference should be made to Codes of Practice or standard operating procedures that will be followed. If changes to the default controls triggered by the substance classification are proposed, the reasons for these changes should be provided.

Please note that you will find it easiest to complete this section in conjunction with section 4.2. That is because the management of risks will influence their residual level. (See comments under “Section 4.5 of Form” in the User Guide)

The controls provided in section 3.4 will be managed through the following

1. Product Label. This details the crops, rates, targets, timing, application methods and withholding periods along with brief information on hazards, precautions and safety information..
2. Product Safety Data Sheet.
3. Product Emergency Procedure Guide.
4. Codes of Practice:
  - a. Product labelling and Documentation Guide for Hazardous Substances and Agricultural Compounds and Veterinary Medicines, Agcarm Incorporated, Wellington, NZ
  - b. Signage for Premises Storing Hazardous Substances and Dangerous goods (HSNO CoP 2-1 09-04), NZCIC
  - c. Preparation of Safety Data Sheets (Draft), NZCIC
5. New Zealand Standards:
  - a. NZS 8409:2004 Management of Agrichemicals

- b. NZS 5433:1999 Transport of Dangerous Goods on Land
- 6. Other References:
  - a. United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations
  - b. Land Transport Rule, Dangerous Goods Rule 45001

**4.6 Provide an overall evaluation of the combined impact of all of the risks, costs and benefits set out in sections 4.2, 4.3 and 4.4.**

Doing this overall evaluation is the main task of the Authority. However, you may wish to express a view on the relative importance of the different risks, costs and benefits and how they should be brought together in making a decision.

**(Optional)** (See comments under “Section 4.6 of Form” in the User Guide)

## Section Five – International Considerations

**5.1 ERMA New Zealand is interested in whether this substance (or any of its components) has been considered by any other regulatory authority in New Zealand or by any other country. If you are aware of this, please provide details of the results of such consideration.**

**(Optional)** (See comments under “Section 5.1 of Form” in the User Guide)

## Section Six – Miscellaneous

**6.1 Provide a glossary of scientific and technical terms used in the application.**

(See comments under “Section 6.1 of Form” in the User Guide)

ACVM	Agricultural Compounds and Veterinary Medicines
HAZCHEM code	Hazardous Chemical Emergency Response code
HDPE	High Density Polyethylene
HSNO	Hazardous Substances and New Organisms
ISO	International Standards Organisation
NZCIC	New Zealand Chemical Industry Council Inc
NZS	New Zealand Standard
SDS	Safety Data Sheet
a.i. or ai	active ingredient

**6.2 Provide here any other information you consider relevant to this application not already included.**

(See comments under “Section 6.2 of Form” in the User Guide)

None.

## Section Seven – Summary of Public Information

The information provided in this section may be used in the Authority’s public register of substances required under Section 20 of the HSNO Act.

This summary information will be used to provide information for those people and agencies (eg Ministry for the Environment, Department of Conservation, Regional Councils, etc), who will be notified of the application, and for potential submitters who request information. This information will also be used to prepare the public notice of the application.

For these reasons, applicants should ensure that this summary information does not contain any commercially sensitive material.

### 7.1 Name of the substance(s) for the public register:

Please use a maximum of 80 characters.

(See comments under “Section 7.1 of Form” in the User Guide)

Canyon

### 7.2 Purpose of the application for the public register:

This should include (in a maximum of 255 characters) an abstract giving information on the intended use of the substance and why an application is needed based on its hazardous properties.

(See comments under “Section 7.2 of Form” in the User Guide)

To import or manufacture Canyon to use for the control of nematodes in Carrots, Kiwifruit, Kumara, Lucerne and Potatoes.

### 7.3 Use Categories of the substance(s):

ERMA New Zealand has adopted the system of use categories developed by the European Union, which identify various functional uses of substances. This information is pertinent to the assessment of exposure scenarios and the determination of risk and is also useful for building up a profile of the substance. There are three sets of use categories. Within each of these, applicants should state which use categories are relevant to all intended uses of the substance(s).

- Main category: There are four main categories - see User Guide for details.
- Industry category: There are 16 industry categories - see User Guide for details.
- Function/Use category: There are 55 function/use categories - see User Guide for details.

**(Optional)** (See comments under “Section 7.3 of Form” in the User Guide)

**Main category:** 4 - Wide dispersive use (spraying of pesticides)

**Industry category:** 1 - Agricultural industry (plant protection products)

**Function/use category:** 38 - Pesticide (control nematodes)

#### 7.4 Executive Summary:

In this section, the applicant should provide a summary of information contained in this application, including:

- the identification of the substance, its hazardous properties and intended uses
- an assessment of the risks, costs and benefits
- the methods implemented to manage the risks, particularly in relation to emergency management and disposal.

(See comments under “Section 7.4 of Form” in the User Guide)

This is an application to import from overseas and re-pack in New Zealand, Canyon to use for the control of nematodes in Carrots, Kiwifruit, Kumara, Lucerne and Potatoes.

The product contains fenamiphos – a substance already approved in an number of formulations. Other components in the formulation are also present in approved products. Therefore, the use of Canyon will not introduce any new substances/components to the New Zealand environment.

The proposed hazard properties of Canyon are: 3.1C (Flammable), 6.1B (Acute toxicity), 6.3B (Skin irritant), 6.9A (Target organ toxicity), 8.3A (Corrosive), 9.1A (Aquatic toxicity), 9.2B (Soil toxicity), 9.3A (Terrestrial vertebrate toxicity) and 9.4A (Terrestrial invertebrate toxicity).

Canyon triggers various hazard categories but the use of the Label, Safety Data Sheets and Emergency Procedure Guides should minimise the risk of adverse events from spillage and mitigate damage to human health and the environment if a spillage occurs during transport, re-packing, storage and use.

Canyon is a nematicide and is likely to be applied by suitably qualified and trained applicators. This will minimise the risk of incorrect application leading to spray drift.

Canyon may be applied by ground equipment once per crop cycle to Carrots, Kumara and Potatoes.

Ground application (spot treatment of affected areas) may be made to existing Lucerne stands once per year. Kiwifruit roots may be dipped in a solution of Canyon prior to planting. The rate of use is between 8.0 – 10.0 kg a.i. /ha/year for application by ground equipment, equivalent to 20.0 – 25.0 L/ha Canyon per year.

Canyon should be disposed of according to label directions. If disposal of unused product is required, then product can be sent to the council collection point for incineration at Trans Pacific.

Containers should be triple rinsed (with the rinsate added to the spray tank) and label directions followed regarding container disposal either by burning if circumstances, especially wind direction, are suitable, burying in a suitable landfill or use of Agrecovery sites.

The use of similar products since 1979 can be taken as confirmation that Canyon poses very little risk to humans and the environment if used and handled according to label instructions.

## CHECKLIST

Mandatory sections filled out

Yes

Appendices enclosed

Yes

Fees enclosed

Yes

Application signed and dated

Yes

Signed

Date