



DECISION

25 May 2017

Summary

Substance	LP 408
Application code	APP203220
Application type	To import or manufacture for release any hazardous substance under Section 28 of the Hazardous Substances and New Organisms Act 1996 ("the Act")
Applicant	Kiwicare Corporation Limited
Purpose of the application	To import or manufacture LP 408, a ready-to-spray liquid fertiliser containing urea (400 g/L) to stimulate grass growth and a dilute herbicide mix containing 9.3 g/L dichlorprop-p as the dimethylamine salt, 4.8 g/L MCPA dimethylamine salt and 3.9 g/L mecoprop-p as the dimethylamine salt for the control of broadleaf weeds in lawns and turf
Date application received	13 April 2017
Consideration date	23 - 25 May 2017
Considered by	The Chief Executive ¹ of the Environmental Protection Authority ("the EPA")
Decision	Approved with controls
Approval code	HSR101236
Hazard classifications	6.3B, 6.4A, 6.5B, 9.1C, and 9.2A

¹ The Chief Executive of the EPA has made the decision on this application under delegated authority in accordance with section 19 of the Act.

1. Substance

- 1.1. LP 408 is a ready-to-use liquid in a ready-to-spray unit containing dichlorprop-p, MCPA and mecoprop-p (as the dimethylamine salts), plus other components. The intended use is as a herbicide for broadleaf weeds in lawns and established turf by non-professionals, including around domestic houses.

2. Process and notification

Application receipt

- 2.1. The application was formally received on 13 April 2017 under section 28 of the Act.

Information available for consideration

- 2.2. The information available for the consideration comprised:
 - the application form
 - confidential appendices to the application
 - the EPA staff advice memorandum.
- 2.3. It is considered that there is sufficient information to assess the application.

Public notification

- 2.4. This application was not publicly notified under section 53(2) of the Act because it was unlikely that there would be significant public interest in the application.

Notification to government departments

- 2.5. According to section 53(4) of the Act, the following government departments were notified of the application on 13 April 2017: WorkSafe New Zealand, the Ministry for Primary Industries (Agricultural Compounds and Veterinary Medicines Group) and the Ministry of Health. No comments were received.

Legislative criteria for the application

- 2.6. The application was considered in accordance with section 29 of the Act, taking into account other relevant sections of the Act, the Hazardous Substances Regulations and the Hazardous Substances and New Organisms (Methodology) Order 1998.

3. Hazardous properties, prescribed controls and exposure limits

Hazardous properties

- 3.1. The hazard classifications of LP 408 were determined based on the information provided by the applicant and other available information.
- 3.2. The classifications that apply to this substance are different to those submitted by the applicant (Table 1). The difference in classifications has arisen as a result of using classifications of mixtures used in

LP 408 rather than the concentration of individual components. The EPA considers it appropriate to classify based on individual triggering components rather than a mixture within the substance.

Table 1: Hazard classifications of LP 408

Hazard	Applicant classification	EPA classification
Acute toxicity (oral)	6.1D	No
Skin irritancy	6.3B	6.3B
Eye irritancy/corrosivity	8.3A	6.4A
Contact sensitisation	6.5B	6.5B
Target organ or systemic toxicity	6.9B (oral)	ND
Aquatic ecotoxicity	No	9.1C
Soil ecotoxicity	9.2A	9.2A
Terrestrial vertebrate ecotoxicity	9.3C	No

ND: Not determined

- 3.3. Based on the individual components, a Class 9.1C was assigned and considered appropriate by the EPA staff; the applicant did not classify the substance as a 9.1. Downgrading of this classification was not relevant due to unknown degradation and bioaccumulation characteristics of one of the triggering components.

Prescribed controls

- 3.4. The hazard classifications of LP 408 determine a set of prescribed controls specified by the Hazardous Substances Regulations under the Act.
- 3.5. The prescribed controls set the baseline for how the substance must be managed and include specifications on how the substance is to be packaged, labelled, stored, disposed, transported, handled and used. The prescribed controls also set information requirements (eg safety data sheets), signage and emergency management. These controls form the basis of the controls specified in Appendix A.
- 3.6. According to information requirements, due to the specific hazards, the name and CAS number of the following components will need to be specified on the label and the documentation (e.g. safety data sheets):

Label requirement	Documentation requirement
Dichlorprop-p dimethylamine salt (6.5B), CAS # 104786-87-0	Dichlorprop-p dimethylamine salt (6.5B), CAS # 104786-87-0
Iron EDTA (6.5B), CAS # 15651-72-6	Iron EDTA (6.5B), CAS # 15651-72-6

Exposure limits

- 3.7. Several prescribed controls allow the EPA to set human health and environmental exposure values.
- 3.8. Control T1 allows the EPA to set ADE (Acceptable Daily Exposure), PDE (Potential Daily Exposure) and TEL (Tolerable Exposure Limit) values. No ADE value has been set for the active ingredients

under control T1 previously. No ADE value has been set at this time because the exposure to this substance is not likely to result in an appreciable toxic effect to people, provided conditions of use are followed. Therefore, the criteria for setting an ADE value under regulation 11(1)(c) of the Hazardous Substances (Classes 6, 8 and 9) Regulations 2001 was not met. As no ADE values has been set, then no PDE or TEL values are required to be set.

- 3.9. Control T2 allows Workplace Exposure Standard (WES) values to be set for any component of a substance to limit the exposure of people to toxic substances in places of work. Although LP 408 is primarily used in a domestic setting, the WES values listed in the WorkSafe New Zealand Standard Workplace Exposure Standards and Biological Exposure Indices 8th Edition² are adopted for all components of this substance in accordance with regulation 30(1)(a) of the Hazardous Substances (Classes 6, 8 and 9) Regulations 2001, where applicable.
- 3.10. Control E1 allows the EPA to set Environmental Exposure Limit (EEL) values. As no EEL values are set at this time or have been set previously for these active ingredients, the default value has been deleted.

4. Risk and benefit assessment

Risk assessment

- 4.1. The risk assessment takes into account the hazardous properties, prescribed controls and other legislation such as the Land Transport Rule 45001, Civil Aviation Act 1990 and Maritime Transport Act 1994.
- 4.2. The risk and benefit assessment:
- considers the risks posed by LP 408
 - determines whether the risks are outweighed by the benefits
 - determines whether any variations or additions to the prescribed controls are required to manage the risks of this substance, and identifies controls that may not be applicable or necessary that can, therefore, be deleted.

Assessment of risks

- 4.3. The human health and environmental risks are assessed in accordance with Section 29(1) of the Act. This assessment takes into account the full life cycle of this substance, including import and manufacture, packaging, transport, storage, use and disposal.

Human health

- 4.4. No quantitative risk assessment for the use in the home garden had been performed previously on the active ingredients in LP 408. Since, other assumptions are made in a domestic setting regarding training and contact and use patterns, a quantitative human health risk assessment was performed.

² Or any subsequent version of this Standard approved or endorsed by the EPA.

- 4.5. A quantitative risk assessment was performed by the applicant for all three active ingredients. The EPA staff reviewed the exposure assessment provided by the applicant, and accepted the revised assessment performed by the applicant, after consideration of EPA comments.
- 4.6. The potential risks posed by LP 408 to human health were assessed by estimating the exposure of operators (consumer), re-entry workers and bystanders (children). These exposures were assessed for the ready-to-use spray application of LP 408 on turf, using the maximum application rates and frequencies proposed by the applicant.
- 4.7. The quantitative human health risk assessment determined that the risks to operators, bystanders and re-entry workers are negligible, as modelling of the proposed uses of LP 408 determined that the risk quotients are below the acceptable operator exposure level (AOEL).

Environment

- 4.8. The potential of LP 408 to cause adverse effects to the environment during every life cycle stage of the substance was evaluated. The identification and qualitative assessment of the risks arising from the environmental hazards associated with LP 408 are set out in Appendix B.

Conclusion

- 4.9. With the controls in place, the risks to human health and the environment are reduced to a negligible level.

Assessment of risks to Māori and their relationship to the environment

- 4.18 The potential effect of LP 408 on the relationship of Māori to the environment has been assessed in accordance with sections 5(b), 6(d) and 8 of the Act. Under these sections all persons exercising functions, powers, and duties under the Act shall:
- recognise and provide for the maintenance and enhancement of people and communities to provide for their cultural well-being
 - take into account the relationship of Māori and their culture and traditions with their ancestral lands, water, taonga and the principles of The Treaty of Waitangi (Te Tiriti o Waitangi).
- 4.19 In consideration of these obligations, the following sections address the impact of LP 408 on Māori interests including kaitiakitanga (stewardship), taha hauora (human health), taiao (environment), and Te Tiriti o Waitangi.
- 4.20 I note that LP 408 also triggers several hazardous properties that give rise to the potential for cultural risk. Cultural risk includes any negative impacts to taonga species, the environment, and the general health and well-being of individuals and the community. In addition, the introduction and use of hazardous substances has the potential to inhibit the ability of Māori to fulfil their role as kaitiaki.

Taha hauora (human health)

- 4.21 I note that LP 408 also triggers several hazardous properties that give rise to the potential for cultural risk in relation to taha hauora e.g. skin and eye irritancy and skin sensitisation. For these reasons, LP 408 poses a risk to taha hauora, in particular the dimensions of taha tinana (physical health and well-

being) and taha whanaunga (the responsibility to belong, care for and share in the collective, including relationships and social cohesion).

Mahinga kai (food resources and aquatic organisms)

4.22 LP 408 poses a potential risk to aquatic organisms. This is of concern in respect of culturally significant species of fish that are an important food source for Māori. If LP 408 enters waterways, there is potential for this substance to adversely affect taonga food species such as tuna (fresh water eels), inanga (whitebait), koura / kēwai (freshwater cray) or their prey species, for example kōuraura (shrimp) and piriwai (mayfly). This substance could also potentially harm other culturally significant non-food species such as kōkopu (galaxiids) and toitoi (bullies).

Kupu whakatepe (concluding remarks)

4.23 In general, the introduction and use of hazardous substances has the potential to inhibit the ability of Māori to fulfil their role as kaitiaki. This is particularly relevant when considering the guardianship of waterways given the ecotoxic nature of some substances to aquatic species and potential risks to human health under prolonged exposure to some substances.

4.24 Based on the information provided, including the use pattern and the controls proposed to be assigned to LP 408, the risks to Māori culture or traditional relationships with the environment are likely to be negligible.

4.25 If LP 408 is applied in the proposed manner, it would likely be consistent with the principles of The Treaty of Waitangi, including the principle of active protection.

Assessment of risks to society, the community and the market economy

4.26 No risks to society, communities or the market economy from the approval of LP 408 are identified.

New Zealand's international obligations

4.27 No international obligations that may be impacted by the approval of LP 408 have been identified.

The effects of the substance being unavailable

4.28 The likely effects of the substance being unavailable in accordance with section 29(1) of the Act have been considered. Should this substance not be available, it could lead to less consumer choice.

Assessment of benefits

4.29 The applicant considers that the approval of LP 408 will provide the following benefits, including:

- LP 408 is formulated as a ready-to-spray formulation that provides fertilisation and control of a wide range of weeds in lawns. The application through a hose-end sprayer provides an easy to use, very effective and safe way to apply herbicides without mixing and loading
- removal of weeds, such as prickly, from lawns increases the recreational value of a lawn and encourages play and exercise
- removal of flowering weeds (eg clover, prickly) from lawns removes the risk of bee stings, which for some people can be life threatening

- increased value of a property by maintaining healthy lawns

4.30 No information to support the claimed benefits was provided by the applicant.

4.31 The availability of LP 408 will provide beneficial economic effects for some businesses with the potential for flow-on effects to local communities and the New Zealand economy, including increased consumer choice and greater market competition. There are some benefits related to the approval of LP 408, and the benefits are likely to be non-negligible.

5. Variation and cost-effectiveness of prescribed controls

Modification of controls under section 77 of the Act

5.1 Section 77 of the Act allows the prescribed controls to be substituted, added and/or deleted where:

- the adverse effects identified for a substance are different from those which would usually be associated with substances with the same hazard classification
- the adverse effects cannot be identified for a substance because of the scientific and technical uncertainty in the available information
- the benefits of the substance are retained without significantly increasing the adverse effects.

5.2 The justifications for varying the prescribed controls or adding other controls are provided in Table 2.

Table 2: Justification for the variations to the prescribed controls (see Appendix A for control variations)

Control	Justification
T7	<p>Carriage of toxic or corrosive substances on passenger service vehicles</p> <p>This control restricts the carriage of toxic or corrosive substances on passenger service vehicles (eg buses, trains). The existing maximum quantities of class 6.5 substances (0.1 L) have been reviewed and an increased maximum quantity of 1 L has been implemented to ensure that any products available in retail outlets can be carried on public transport vehicles.</p>
E7	<p>Approved handler/security requirements for certain ecotoxic substances</p> <p>This control includes requirements for ecotoxic substances to be under the control of an approved handler under specific circumstances. This control should be modified for LP 408, so as to apply only when the substance is applied in a wide dispersive manner (e.g. when sprayed on large areas such as crops) or by a commercial contractor. Accordingly, the following control has been substituted for Regulation 9(1) of the Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001:</p> <p>(1) This substance must be under the personal control of an approved handler when the substance is–</p> <p>(a) applied in a wide dispersive manner, or</p> <p>(b) used by a commercial contractor.</p>
TR1	<p>Tracking requirements</p> <p>This control relates to tracking requirements and has been triggered by the ecotoxic properties of LP 408. Any ecotoxic risks that may arise during the life cycle of this substance are adequately managed through other controls such as packaging, labelling and emergency management requirements, provided they are complied with. Thus, this control has been deleted.</p>

Control	Justification
EM12	<p>Emergency management requirements</p> <p>This control specifies the emergency management requirements for secondary containment of liquid hazardous substances (or those likely to liquefy in a fire) and pooling substances. However, this control does not allow for dispensation where it is unnecessary for any pipework associated with the stationary container systems to have secondary containment. Therefore, the emergency management controls have been varied to address this.</p> <p>The risks associated with the containment of substances which are not class 1 to 5 substances (i.e. do not ignite or explode) are different to those associated with class 1 to 5 substances. Consequently, the secondary containment requirements can be reduced. These reduced secondary containment measures are adequate to manage the risks of a spillage of LP 408, as this substance does not ignite or explode.</p>

Modification of controls under section 77A of the Act

- 5.3 Section 77A of the Act also allows the EPA to add, vary, substitute, combine or delete controls if such changes are more effective or cost-effective with respect to managing the use and risks of the substance, or are more likely to achieve their purpose than the prescribed controls.
- 5.4 The justifications for varying the prescribed controls or adding other controls are provided in Table 3. The control variations or additions are considered to be more effective with respect to their effect on the management, use, and risks of the substance than the prescribed controls. These controls have been incorporated into Appendix A of this document.

Table 3: Justification for the modification to prescribed controls and addition of other controls

Control	Justification
Water Application method Application rate	The environmental risk assessment indicates that restrictions on use and application of this substance are necessary to mitigate the risk of adverse effects that could be caused to humans and organisms in the environment.
Labelling	A label control specifying information that must be conveyed to users of LP 408 is the best way to ensure that they are aware of the restrictions imposed on this substance, and can take the necessary precautions to minimise adverse effects to human health and the environment.
Restriction on impurity	The active ingredients in LP 408, Dichlorprop-p, MCPA and Mecoprop-p are associated with the toxicologically significant impurities free phenols. When present in high enough concentrations, these impurities can cause adverse effects to people or the environment. Imposing a restriction on the maximum amount of these impurities will prevent them from occurring in concentrations sufficient to cause adverse effects to people or the environment.
Schedule 8	<p>SCHEDULE 8 OF THE HAZARDOUS SUBSTANCES (DANGEROUS GOODS AND SCHEDULED TOXIC SUBSTANCES) TRANSFER NOTICE 2004</p> <p>The prescribed controls do not address the risks associated with storage or use of substances within stationary container systems (e.g. tanks). These risks include the potential failure of primary containment resulting in a large spill of the substance into the environment. An additional control has been added to mitigate the risk when this substance is stored in bulk without consideration of the equipment.</p>

Review of controls for cost-effectiveness

- 5.5 The proposed controls, provided they are complied with, are the most cost-effective means of managing the identified potential risks associated with this substance. The applicant was provided an opportunity to comment on the controls as set out in this decision and no concerns were raised.

6. Decision

- 7.1 Pursuant to section 29 of the Act, I have considered this application for approval under section 28 of the Act. I have considered the effects of this substance throughout its life cycle, the controls that may be imposed on this substance and the likely effects of this substance being unavailable.
- 7.2 I consider that, with controls in place, the risks to human health and to the environment are negligible, and the benefits associated with the release of this substance will outweigh the adverse effects. Therefore, the import or manufacture of LP 408 is approved with controls as listed in Appendix A, in accordance with section 29 of the Act and clause 26 of the Hazardous Substances and New Organisms (Methodology) Order 1998.



Environmental
Protection Authority
Whangarei

Dr Allan L Freeth

Date: 25 May 2017

Chief Executive, EPA

Appendix A: Controls applying to LP 408

Please refer to the Hazardous Substances Regulations³ for the requirements prescribed for each control.

Hazardous Substances (Classes 6, 8, and 9 Controls) Regulations 2001

Code	Regulation	Description	Variation
T1	11 – 27	Limiting exposure to toxic substances through the setting of ADE, PDE or TEL values	No ADE, PDE or TEL values are set for any component of this substance at this time.
T2	29, 30	Controlling exposure in places of work through the setting of WES values	The EPA adopts as WES values for this substance, and each component of this substance, any applicable value specified in WorkSafe New Zealand's Workplace Exposure Standards and Biological Exposure Indices Document; 8 th Edition; June 2016 ⁴
T4	7	Requirements for equipment used to handle substances	
T5	8	Requirements for protective clothing and equipment	
T7	10	Restrictions on the carriage of toxic or corrosive substances on passenger service vehicles	The trigger level for this control is varied from 0.1 to 1 L.
E1	32 – 45	Limiting exposure to ecotoxic substances through the setting of EEL values	No EEL values are set at this time and the default EEL values are deleted
E2	46 – 48	Restrictions on use of substances in application areas	See additional controls set under section 77A of the Act ⁵
E5	5(2), 6	Requirements for keeping records of use	
E6	7	Requirements for equipment used to handle substances	
E7	9	Approved handler/security requirements for certain ecotoxic substances	The following control is substituted for Reg 9(1) of the Hazardous Substances (Classes 6,8 and 9 Controls) Regulations 2001: <i>(1) This substance must be under the personal control of an approved handler when the substance is:</i>

³ The regulations can be found on the New Zealand Legislation website; <http://www.legislation.co.nz>

⁴ Or any subsequent version of this Standard approved or endorsed by the EPA. The prescribed Regulations permit one or more WES values to be set for a substance, therefore, this note is for informative purposes rather than a variation to the prescribed controls.

⁵ This note is for informative purposes rather than a variation to the prescribed controls.

Code	Regulation	Description	Variation
			(a) applied in a wide dispersive manner; or (b) used by a commercial contractor.

Hazardous Substances (Identification) Regulations 2001

Code	Regulation	Description	Variation
I1	6, 7, 32 – 35, 36(1) – (7)	Identification requirements, duties of persons in charge, accessibility, comprehensibility, clarity and durability	
I3	9	Priority identifiers for ecotoxic substances	
I9	18	Secondary identifiers for all hazardous substances	
I11	20	Secondary identifiers for ecotoxic substances	
I16	25	Secondary identifiers for toxic substances	
I17	26	Use of generic names	
I18	27	Requirements for using concentration ranges	
I19	29 – 31	Additional information requirements, including situations where substances are in multiple packaging	
I21	37 – 39, 47 – 50	General documentation requirements	
I23	41	Specific documentation requirements for ecotoxic substances	
I28	46	Specific documentation requirements for toxic substances	
I29	51, 52	Signage requirements	

Hazardous Substances (Packaging) Regulations 2001

Code	Regulation	Description	Variation
P1	5, 6, 7(1), 8	General packaging requirements	
P3	9	Criteria that allow substances to be packaged to a standard not meeting Packing Group I, II or III criteria	
P13	19	Packaging requirements for toxic substances	
PS4	Schedule 4	Packaging requirements as specified in Schedule 4	

Hazardous Substances (Disposal) Regulations 2001

Code	Regulation	Description	Variation
D4	8	Disposal requirements for toxic and corrosive substances	
D5	9	Disposal requirements for ecotoxic substances	
D6	10	Disposal requirements for packages	
D7	11, 12	Information requirements for manufacturers, importers and suppliers, and persons in charge	
D8	13, 14	Documentation requirements for manufacturers, importers and suppliers, and persons in charge	

Hazardous Substances (Emergency Management) Regulations 2001

Code	Regulation	Description	Variation
EM1	6, 7, 9 – 11	Level 1 information requirements for suppliers and persons in charge	
EM6	8(e)	Information requirements for toxic substances	
EM7	8(f)	Information requirements for ecotoxic substances	
EM8	12 – 16, 18 – 20	Level 2 information requirements for suppliers and persons in charge	
EM11	25 – 34	Level 3 emergency management requirements: duties of person in charge, emergency response plans	
EM12	35 – 41	Level 3 emergency management requirements: secondary containment	<p>The following subclauses are added after subclause (3) of regulation 36:</p> <p>(4) <i>For the purposes of this regulation, and regulations 37 to 40, where this substance is contained in pipework that is installed and operated so as to manage any loss of containment in the pipework it—</i></p> <p>(a) <i>is not to be taken into account in determining whether a place is required to have a secondary containment system; and</i></p>

Code	Regulation	Description	Variation
			<p>(b) <i>is not required to be located in a secondary containment system.</i></p> <p>(5) <i>In this clause, pipework—</i></p> <p>(a) <i>means piping that—</i></p> <p>(i) <i>is connected to a stationary container; and</i></p> <p>(ii) <i>is used to transfer a hazardous substance into or out of the stationary container; and</i></p> <p>(b) <i>includes a process pipeline or a transfer line.</i></p> <p>The following subclauses are added at the end of regulation 37:</p> <p>(2) <i>If pooling substances which do not have class 1 to 5 hazard classifications are held in a place above ground in containers each of which has a capacity of 60 litres or less—</i></p> <p>(a) <i>if the place's total pooling potential is less than 20,000 litres, the secondary containment system must have a capacity of at least 25% of that total pooling potential:</i></p> <p>(b) <i>if the place's total pooling potential is 20,000 litres or more, the secondary containment system must have a capacity of the greater of—</i></p> <p>(i) <i>5% of the total pooling potential; or</i></p> <p>(ii) <i>5,000 litres.</i></p> <p>(3) <i>Pooling substances to which subclause (2) applies must be segregated where appropriate to ensure that leakage of one substance may not adversely affect the container of another substance.</i></p> <p>The following subclauses are added at the end of regulation 38:</p> <p>(2) <i>If pooling substances which do not have class 1 to 5 hazard classifications are held in a place above ground in containers 1 or more of which have a capacity of more than 60 litres but none of which have a capacity of more than 450 litres—</i></p>

Code	Regulation	Description	Variation
			<p>(a) if the place's total pooling potential is less than 20,000 litres, the secondary containment system must have a capacity of either 25% of that total pooling potential or 110% of the capacity of the largest container, whichever is the greater:</p> <p>(b) if the place's total pooling potential is 20,000 litres or more, the secondary containment system must have a capacity of the greater of—</p> <p>(i) 5% of the total pooling potential; or</p> <p>(ii) 5,000 litres</p> <p>(3) Pooling substances to which subclause (2) applies must be segregated where appropriate to ensure that the leakage of one substance may not adversely affect the container of another substance.</p>
EM13	42	Level 3 emergency management requirements: signage	

Hazardous Substances and New Organisms (Personnel Qualifications) Regulations 2001

Code	Regulation	Description	Variation
AH 1	Regs 4 – 6	Approved Handler requirements (including test certificate and qualification requirements)	<p>(1) This substance must be under the personal control of an approved handler when the substance is –</p> <p>(a) applied in a wide dispersive manner ; or</p> <p>(b) used by a commercial contractor.</p>

Hazardous Substances (Tank Wagons and Transportable Containers) Regulations 2004

Code	Regulation	Description	Variation
Tank Wagon	4 – 43, as applicable	Controls relating to tank wagons and transportable containers	

Additional controls

Code	Section of the Act	Control
Water	77A	This substance must not be applied into or onto water.

Application Method		This substance must be applied using ground-based methods only.
Application rate		<p>The maximum application rate of dichlorprop-p is 0.81 kg a.i./ha.</p> <p>The maximum application rate of MCPA is 0.42 kg a.i./ha.</p> <p>The maximum application rate of mecoprop-p is 0.34 kg a.i./ha.</p> <p>The maximum application frequency and minimum interval period of this substance must not be more than four times per calendar year with a minimum interval between applications of 30 days.</p>
Restriction on impurity		<p>The maximum concentration of the toxicologically relevant impurity free phenols (calculated as 2,4-dichlorophenol) in the active ingredient dichlorprop-p used to manufacture this substance is 10 g/kg.</p> <p>The maximum concentration of the toxicologically relevant impurity free phenols (calculated as 4-chloro-2-methylphenol) in the active ingredient mecoprop-p used to manufacture this substance is 10 g/kg.</p> <p>The maximum concentration of the toxicologically relevant impurity free phenols (calculated as 4-chloro-2-methylphenol) in the active ingredient MCPA used to manufacture this substance is 10 g/kg.</p>
Label	77A	<p>The following information, or words to the same effect, must appear on the product label and documentation supplied with this substance:</p> <p>This substance must not be applied into or onto water.</p> <p>This substance must be applied using ground-based methods only.</p> <p>The approved application rates, frequencies and intervals between applications.</p> <p>No person may apply the substance in a manner that results in adverse effects to non-target vegetation beyond the boundary of the subject property.</p>
Stationary Container Systems	Schedule 8	<p>SCHEDULE 8 OF THE HAZARDOUS SUBSTANCES (DANGEROUS GOODS AND SCHEDULED TOXIC SUBSTANCES) TRANSFER NOTICE 2004</p> <p>This schedule prescribes the controls for stationary container systems. The requirements of this schedule are detailed in the consolidated version of the Hazardous Substances (Dangerous Goods and Schedule Toxic Substances) Transfer Notice 2004, available from http://www.epa.govt.nz/Publications/Transfer-Notice-35-2004.pdf</p> <p>The following clause replaces Clause 1 of Schedule 8 of the Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004:</p> <p><i>This Schedule applies to every stationary container system that contains, or is intended to contain the substance</i></p>

Definitions

Unless defined below, terms used in the controls have the same meaning as defined in the Act or regulations made under the Act.

Term	Definition
a.i	Active ingredient - the biologically active chemical in a pesticide product
Ground-based application	Ground-based methods of applying pesticides include, but are not limited to, application by ground boom, airblast or knapsack, and do not include aerial application methods.
Water	Means water in all its physical forms, whether flowing or not, and whether over or under ground, but does not include water in any form while in a pipe, tank or cistern or water used in the dilution of the substance prior to application.
Water body	Includes all natural and modified/artificial water courses such as reservoirs, irrigation canals, water-supply races, canals for the supply of water for electricity generation or farm drainage, ditches, streams, rivers, ponds and lakes. For clarity, it excludes fully covered pipes, tanks or other enclosed structures, puddles or groundwater.
Watercourse or Waterway	Includes every river, stream, passage, and channel on or under the ground, whether natural or not, through which water flows, whether continuously or intermittently.
Wide dispersive	Refers to activities which deliver uncontrolled exposure - also refer to: http://www.epa.govt.nz/Publications/ER-IS-33-2.pdf

Appendix B: Risk assessment

To facilitate the risk assessment, the most common potential sources of risk to the environment through release, spillage or exposure throughout the life cycle of the substance have been considered. These are shown in Table B1.

Table B1: Potential sources of risks associated with hazardous substances

Life cycle stage	Associated source of risk
Manufacture / Import	An incident during the manufacture or importation of the substance resulting in a spill and subsequent exposure of people or the environment to the substance.
Packing	An incident during the packing of the substance resulting in a spill and subsequent exposure of people or the environment to the substance.
Transport or storage	An incident during the transport or storage of the substance resulting in a spill and subsequent exposure of people or the environment to the substance.
Use	Application of the substance resulting in exposure of users or bystanders or the environment; or an incident during use resulting in a spill and subsequent exposure of users or the environment to the substance.
Disposal	Disposal of the substance or packaging resulting in exposure of people or the environment to the substance.

A summary of the qualitative risk assessment is provided in Table B2 below.

Table B2: Qualitative assessment of biological hazards to the environment

Life cycle	Biological hazard	Likelihood	Magnitude	Level of risk according to Matrix	Comment	Residual level of risk
Manufacture, importation, transport and storage	Death or adverse effects to aquatic or terrestrial organisms	Highly improbable	Minor	Negligible	Provided that the exercise of this approval is in compliance with the HSNO controls (and the Land Transport Rule 45001, Civil Aviation Act 1990 and Maritime Transport Act 1994 (as applicable)), the likelihood of a spill is considered to be highly improbable.	Negligible
Use (application)	Death or adverse effects to aquatic or terrestrial organisms	Unlikely	Minor	Negligible	I consider that the use of appropriate statements on labels and safety data sheets prohibiting the application of this substance onto or into water will adequately manage the risks to the aquatic environments.	Negligible
Disposal	Death or adverse effects to	Highly improbable	Minor	Negligible	Users will, in most cases, utilise all of this substance by its intended use as a herbicide. All	Negligible

Life cycle	Biological hazard	Likelihood	Magnitude	Level of risk according to Matrix	Comment	Residual level of risk
	aquatic or terrestrial organisms				cases of disposal are required to be in accordance with the requirements of the Hazardous Substances (Disposal) Regulations 2001.	