

APPENDIX A

“Clobber* 25 WP” Decision report



ENVIRONMENTAL RISK MANAGEMENT AUTHORITY DECISION

23 July 2002

Application code	HSR02008
Application type	To import or manufacture any hazardous substance under Section 29 the Hazardous Substances and New Organisms (HSNO) Act 1996
Applicant	Crop Care Holdings Limited
Purpose	To import Clobber*25 WP for use as an agricultural insecticide
Date received	25 February 2002
Consideration date	7 th June 2002
Considered by	Hazardous Substances Committee of the Authority

1. Summary of Decision

- 1.1. The application to import Clobber*25 WP is **approved with controls** in accordance with section 29 and other relevant provisions of the Hazardous Substances and New Organisms Act 1996 (the HSNO Act), the HSNO Regulations, and the HSNO (Methodology) Order 1998. Though the applicant proposes only to import the substance, this approval authorises both import and manufacture.
- 1.2. The hazardous substance has been given the unique identifier "Clobber*25 WP" for the ERMA New Zealand Hazardous Substances Register.
- 1.3. ERMA New Zealand has adopted the 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	3	Wide dispersive use
Industry category	1	Agricultural
Function/use category	39	Pesticides

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 25 February 2002. The application was verified on 28 February 2002.
- 3.2. The application was publicly notified on 6 March 2002 in The Dominion, The New Zealand Herald, The Christchurch Press, and The Otago Daily Times (clauses 2(b) and 7, section 53(1) and 53A). No submissions were received. Government Departments, Crown Entities, and interested parties, which in the opinion of the Authority would be likely to have an interest in the application, were also notified (clause 2(2)(e), section 53(4)).
- 3.3. No external experts were used in the considering of this application (clause 17).
- 3.4. The information available to the Committee comprised:
 - The application, including as attachments:
 - Confidential information on the formulation, and comprehensive toxicology and ecotoxicology data on the components.
 - References including the US EPA Re-registration eligibility document (RED) for the active ingredient, diflubenzuron.
 - The ERMA New Zealand Evaluation and Review (E&R) Report
 - An email exchange between ERMA New Zealand and the applicant, responding to the E&R Report.
- 3.5. Members of the Hazardous Substances Standing Committee of the Authority: Jill White (Chairperson), Prof. George Clark, and Dr Lindie Nelson considered the application (section 19(2)(b)).
- 3.6. The statutory time frames for the consideration of the application were subject to two waivers – to reduce the 10-day circulation of the E&R Report, and to extend the time to notify the decision. Both times were waived with the agreement of the applicant (Section 59(4)).

4. Consideration

Purpose of the Application

- 4.1. The purpose of the application is for the importation of Clobber*25 WP, an agricultural insecticide which will be used for the control of porina caterpillar and clover flea in pastures and sciarid fly of mushrooms.
- 4.2. Clobber*25 WP is the tradename for an agricultural compound containing the active pesticidal constituent diflubenzuron (25% or 250 g/kg), and a number of other components in the formulation, primarily kaolin (chalk).
- 4.3. The intended use of the product is primarily for the control of porina caterpillar and clover fleas in pasture and to a much lesser extent for the control of sciarid fly in mushrooms. The mode of action is as an insect growth regulator that disrupts chitin deposition and prevents moulting
- 4.4. It was noted that there is an equivalent product registered as a pesticide (Dimilin). A HSNO application is required for Clobber*25 WP as the existing Pesticides Act registration is specific to that product and that registrant. Also the Agricultural Compounds and Veterinary Medicines Act (ACVM) Act requires that a HSNO Act approval is obtained for the substance before the product can be registered under the ACVM Act.

Sequence of the Consideration and the Approach Adopted

- 4.5. In accordance with clause 24 of the Methodology, the approach adopted by the Committee was to:
 - Establish the hazard classifications 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 of the Methodology.
 - Consider and determine variations to the default controls arising from the circumstances provided for in sections 77 (3), (4) and (5) of the Act 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.
- 4.6. The approach used and set out above meets the requirements of clause 24 of the methodology ie the need to use recognised risk identification, assessment, evaluation, and management techniques.

Hazard Classification of Substance

- 4.7. In determining the appropriate hazard classifications for the substance, the Committee considered both the classifications proposed by the applicant, and variations to those classifications proposed in the E & R Report. The Committee agreed with the analyses in the E&R Report, (ref: section 6.2 of the E & R report) and Clobber*25 WP is therefore classified as follows:
- 6.4A (eye irritant)
 - 6.9A (target organ systemic toxicity - methemoglobinemia effects)
 - 9.1A (aquatic ecotoxicity to aquatic invertebrates)
- 4.8. The hazard profile is based largely on the active ingredient, as none of the other ingredients alone trigger the thresholds. This varied from the hazard profile stated by the applicant (toxicity (6.3B, 6.4A) and ecotoxicity (9.1A) for reasons stated in the E & R Report Section 6.2.

Default Controls

- 4.9. The Committee considers that the E&R Report correctly assigned default controls as set out in the HSNO Regulations. They were used as the reference for subsequent consideration of the application.
- 4.10. The default controls associated with above classifications are identified in the E&R Report (at section 6.3), and are not reproduced here. The Committee noted the difference in controls from those proposed by the applicant was attributed to the difference in classification.

Identification of the Potentially Non-negligible Risks, Costs, and Benefits of the Substance

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

Risks

- 4.12. The Committee reviewed the identification of risks made by the applicant and additional risks identified in the E & R Report. From all of those risks, the Committee identified those summarised in the table below as those which were potentially non-negligible and thus warranted more detailed assessment.

Area of impact Stage in life cycle	Biological and physical environment	Human health and safety
Import and transport	Exposure of the aquatic environment or of valued terrestrial invertebrates due to accident and spillage during road transport.	Risk to workers (and general public in the vicinity) from skin or eye contact due to accident and spillage during import or transport
Manufacture or repackaging	Risk to environment from spillage leading to discharge	Risk to workers from skin or eye contact. Risk to workers from chronic exposure
Use of the substance	Risk to the environment (and to aquatic invertebrates in particular) due to spray drift, off target application or spillage in use	Risks to public health from spray drift Risks to workers and possibly others from acute or chronic toxicity, and eye irritation
Disposal of the substance	Risk to ecosystems (and to aquatic invertebrates in particular) from inappropriate disposal of the substance (including used containers).	

Note 1:

Neither the applicant nor the E&R Report identified any risks to Maori, in relation to section 6(d) especially or more broadly. The application had been referred to Nga Kaihautu Tikanga Taiao and Runanga. The Committee thus concludes that there are negligible risks to Maori.

Costs

4.13. Costs are defined in the Methodology Order as the value of an adverse effect expressed in monetary or non-monetary terms. In relation to the effects identified in the above table, the Committee considered that the following economic costs were potentially non-negligible:

- Costs of clean-up after spillage
- Disposal costs

Benefits

4.14. The benefits identified in the application and the E&R report arise if, and to the extent that, the substance is used as an alternative to other products and:

- Is used instead of more hazardous substances (particularly those containing organophosphate) and/or
- Provides greater market competition which results in equivalent products (and this substance) being less expensive to users and hence more widely used instead of more hazardous substances.

4.15. In this context, the Committee considered that potentially non-negligible benefits were as follows:

- To the applicant from any product sales
- To users from reduced costs for products of this type
- To the environment from the greater use of diflubenzuron products instead of organophosphates.
- To the health of workers and of the general community from the greater use of diflubenzuron products instead of organophosphates.

Assessment of the Potentially Non- negligible Risks of the Substance

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

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

Sources of Risk

4.18. In assessing risk the Committee gave particular consideration to risk arising from the significant hazards of the substance ie toxicity and eco-toxicity, and examined the extent to which exposure to hazard would be mitigated by controls. (Clauses 11 and 12 of the Methodology refer).

Assessment of Risks to the Environment and to Human Health from Accident Spillage

4.19. The substance is significantly ecotoxic in the aquatic environment, especially to aquatic invertebrates. Its principal effect on human health is its eye irritancy properties. While the substance is also classified for its target organ toxicity, this effect potentially comes from continuous repeated exposure which not expected to arise as a result of accident spillage. The nature of the main potential effects assessed (clause 12(a)) are thus aquatic ecotoxicity and human eye irritancy.

4.20. There is the potential for workers (and possibly the general public) to be exposed to the substance in the event of a spillage at a wharf, storage facility, when the substance is in transit, or on the farm. The substance is a wettable powder so it is unlikely that there would a large quantity either emitted to the air where people would be exposed, or discharged into waterways. Though accidents involving spillages are not at all uncommon, the Committee notes that it is very unlikely that an accident or other event will lead to the exposure of people or the environment to this particular substance, particularly having regard to the packaging, labelling and other controls for substances having this classification. The Committee concluded that the magnitude of the above effects would be minor, as the package size, packaging controls and the nature of the substance are such that the effects would be localised, and reversible, and hence minor (clauses 12(b)& (d)). The Committee considered this risk to be negligible (clause 12(c)).

Assessment of Risks to Health from Use of the Substance

- 4.21. As indicated above, the potential health effects relate primarily to eye irritancy and to possible target organ toxicity if there is prolonged repeated exposure to the substance. The Committee accepted the analysis in the E&R Report which demonstrated that the dermal exposure of operators is not likely to lead to adverse effects from target organ toxicity, and concluded that this risk was both very unlikely and minimal in effect, and was hence negligible (clause 12(b)&(c)). The Committee reached this conclusion having regard to the controls applying to the substance, including the tolerable exposure limit which is addressed later in this decision. Similarly, the risk to other persons from dermal exposure leading to target organ toxicity (within the application area, or beyond it) was considered by the Committee to be negligible.
- 4.22. Eye irritancy was identified as a potentially greater risk that could arise if a person came into contact with the substance through either direct exposure, or through rubbing their eyes. This could affect the operator, other persons who might enter the application area after it has been treated, and possibly people on adjoining properties. The Committee concluded that it is unlikely that such effects would occur, but if they did, the effects would be moderate (Clause 12(b)). The risk was thus judged to be low (clause 12(a)).
- 4.23. The Committee noted that the likelihood of spray drift beyond the application area was greatest in connection with the aerial application of the substance. The Committee noted the strict requirements for aerial applicators to be rated by the Ministry of Transport, and considered that this provided a measure of demonstrable competence which can be expected to manage this aspect of the risk.

Assessment of Risks to the Environment from use of the Substance

- 4.24. The principal adverse effects relate to the toxicity of the substance to invertebrates, and to aquatic invertebrates in particular (clause 12(a)). The Committee notes that the substance is not toxic to honeybees. It is not bioaccumulative and, while it will persist in pure water, it readily binds to soil particles, including sediment.
- 4.25. The main exposure pathway for aquatic invertebrates is through spray drift into water, though runoff could carry the substance adsorbed on sediment.
- 4.26. The Committee concludes that it is likely that spray drift will occur to some extent, though proper use of appropriate equipment and adherence to the controls (including the environmental exposure limit) are expected to minimise this (clause 12(d)). The magnitude of any effect on aquatic ecosystems will be localised and reversible, and is thus judged to be minor. The level of risk is therefore medium (clauses 12(b) and (c)).

4.27. The Committee accepts the analysis in the E&R report that indicates that the risk to terrestrial vertebrates is so low as to be insignificant. The substance is, however, expected to have an impact on beneficial terrestrial invertebrates (other than honeybees) that may be in the application area, or be affected by spray drift. The magnitude of such effects on the terrestrial ecosystem is minimal in that they will be transient and localised (clause 12(b)). However the exposure route is likely and the risk is therefore considered to be low (clause 12c)).

Risks from Disposal

4.28. The risks to either human health or to the environment from the disposal of either the wettable powder, the used containers, or surplus mixed spray relate to the potential effects discussed above (clause 12(a)). The disposal controls, together with the tolerable exposure limit and environmental exposure limits in the controls provide adequate means of managing the risks and, with these controls in place, it is unlikely that effects would occur. If effects were to occur, they would be localised and reversible, and hence minor for the reasons discussed earlier (clause 12(b)). Hence the risk is low (clause 12c).

Assessment of the Potentially Non-negligible Costs and Benefits

4.29. The Methodology and the Act both call for consideration of monetary and non-monetary costs (clause 13 and section 9). In addition to the costs arising from the above risks (primarily non-monetary), the following economic costs are considered below:

- cost of clean up and disposal after spillage
- cost of disposal of residual substance

4.30. The Committee agrees with the E&R report that the identified economic costs accrue primarily to the user (monetary 13(a)) although they are likely to be passed on to the wider community through increased prices. Costs to the community more directly could be incurred if a spillage requires a response from emergency or other community agencies.

4.31. The benefits of the substance identified in paragraphs 4.12 and 4.13 above are both monetary and non-monetary (clause 13(a)). The magnitude of the benefits depends largely on the degree to which the substance makes diflubenzuron products more accessible to users (through competition with the existing product leading to lower prices to users), and hence the degree to which such products will be used instead of the more hazardous organophosphate alternatives.

4.32. While the Committee was unable to quantify the extent of this substitution, and hence the magnitude of the benefits (clause 13(b)) it is satisfied that such substitution and the associated benefits can be expected to occur.

4.33. The applicant stands to benefit economically from product sales. Wider benefits derived from more widespread use of diflubenzuron products instead of older and currently cheaper organophosphate pesticides will accrue to end users and their families

and to the wider community as a result of the reduction in risks to health and to the environment (clause 13(c)).

- 4.34. Conversely, the effects of not approving this application are expected to be to retain the use of current diflubenzuron and organophosphate substances, and to limit the opportunity for a competitive diflubenzuron product on the market, and hence to limit the above benefits.

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

- 4.35. Clause 33 of the Methodology requires the Authority to have regard for the extent to which a specified set of risk characteristics exist when considering applications. 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.
- 4.36. None of the risks associated with the product are new, as there is an existing product with equivalent characteristics that is used for the same purposes as is intended for Clobber*25 WP. Further, the Committee notes that the use of these products is less hazardous than the organophosphate-based products they are expected to replace.
- 4.37. The Committee is satisfied that the risks are largely localised and reversible, and are unlikely to persist over time. The risks are voluntary for workers except in the unlikely event of exposure through accidental spillage, and controls are imposed to manage such risks. The risks were regarded as comparable to those currently known and understood by users and the community.
- 4.38. There is an involuntary component of the risks associated with spray drift affecting nearby ecosystems and people.
- 4.39. In the light of these risk characteristics and with reference to clause 33, the Committee did not adopt an especially risk-adverse approach when considering the application, though it did have particular regard to risks associated with spray drift.

Variation of Controls

- 4.40. Under section 77(3), (4) and (5) of the Act the default controls determined by the hazard classifications of the substance may be varied. Such variations, together with the setting of exposure limits as provided for in controls are discussed below:
- 4.41. The Committee accepted the analysis in the E&R report for toxic property controls (section 7.1), and adopted a TEL_{inhalation} of 0.003 diflubenzuron per cubic metre of air, based on child 12 hours moderate activity (control code T1).

- 4.42. The Committee agreed with the analysis in the E&R report and concluded that no workplace exposure standard (WES) is necessary (control code T2).
- 4.43. The Committee noted that the classifications 6.4A and 6.9A do not trigger a requirement for protective clothing (Regulation 8 of the Hazardous Substances (Classes 6, 8 and 9) Control Regulations 2001). However, the applicant may choose to put a comment of this nature on the label as indicated in the application.
- 4.44. The committee agreed with the environmental exposure limits proposed in the E&R Report for marine and fresh water (control code E1) as follows:
- EEL_{marine water} = 0.2 µg diflubenzuron /L
 - EEL_{fresh water} = 0.37 µg diflubenzuron /L
- 4.45. No EEL for soil was set as the substance does not trigger the soil ecotoxicity threshold. The Committee also decided (under section 77(4)(a)) to not set an EEL value for sediment, surface deposition or secondary poisoning due to diflubenzuron binding strongly to soil and being immobile, the low application rate, and the lack of ecotoxic effect on terrestrial vertebrates.
- 4.46. An application rate for a substance must be set if an EEL has been set. For this substance, the application rates specified by the applicant have been set by the Committee as follows:
- Pasture: 50g diflubenzuron per hectare
Mushrooms: 40g diflubenzuron per cubic metre incorporated into compost, or 4g in 2.5 litres of water per square metre, as a drench
- 4.47. The Committee agreed with the assessment in the E&R Report that the requirement for an approved handler (control code E7 and AH1) be deleted under section 77(4)(b) on the grounds that the previously discussed benefits are unlikely to be realised if the compliance costs are higher than is necessary to manage the risks. In reaching this conclusion, the Committee noted that the most risky aspect of use was via aerial application and that the regulatory requirements on spray pilots addressed this matter. The Committee was satisfied that the deletion of this requirement would not significantly increase any adverse effects.
- 4.48. The Committee similarly agreed to delete controls requiring the tracking of the substance (control TR1), noting its lack of persistence and bioaccumulation of the substance, and that it readily binds with organic matter. The committee concluded that controls requiring tracking were not necessary to manage adverse effects, and that to impose them would incur unwarranted compliance costs that would reduce the beneficial effects of the substance.

- 4.49. The Committee agreed with the proposals in the E&R Report that the following controls should be combined with other controls as provided for by section 77(5) of the Act. The Committee's view is that the combined controls will control all of the relevant adverse effects identified for the substance. They are:
- Control code E8 – Restrictions on carriage of ecotoxic substances on passenger service vehicles – delete the reference to class 9 quantity limit of 5kg in Regulation 10.
 - Control code I21 – General documentation – the requirements should be consolidated so as to apply the quantities 0.5kg and greater.
- 4.50. The Committee concluded that controls relating to the use of generic names (Control code I17) and to the use of concentration ranges on the label (control code I18) were not applicable to this substance as diflubenzuron is a single entity and is at a fixed concentration.
- 4.51. The Committee agreed to not impose a control requiring first aid information on the label (control code EM1). Though this control is triggered by the classification, there is no reference in the relevant schedule to toxic/ecotoxic substance. While the Committee notes the comment in the E&R report that this was an apparent drafting error (see section 7.5), the power to vary controls under section 77(3) does not include this as a ground for adding a control. The Committee believes that such information should never-the-less be included on the label and strongly urges importers to include it. In the event that a future amendment to the Regulations or the Act allows it, the Committee anticipates that the controls on the substance should be augmented under section 67A.
- 4.52. Prior to the Committee's consideration, the E&R Report that proposed the above variations to controls was provided to the applicant for comment. The provisions of clause 35(b) are effectively met. The controls are thus varied accordingly.

Additional Issues

- 4.53. The Committee noted the intended pattern of use, and that the risk assessment is based on this. Yet the default controls do not provide for the frequency of application to be set. This was considered to be a deficiency in the regulations. The Committee noted that the registration under the ACVM can be expected to impose limits on frequency and/or timing of application.

Overall Evaluation of Risks, Costs and Benefits

- 4.54. Having regard to Clauses 22 and 34 of the Methodology and in accordance with clause 27 of the Methodology and section 29 of the Act, risks costs and benefits were evaluated taking account of the proposed controls incorporating proposed variations to the default controls.

- 4.55. In its foregoing assessment, the Committee identified the following risks that it judged to be more than negligible:
- Risks to aquatic ecosystems or human health from spray drift or inappropriate use
 - Risks to persons from eye irritation
 - Risks to human health or the environment from inappropriate disposal
 - Risks to terrestrial invertebrates and associated ecosystems.
- 4.56. In considering these risks, the Committee considered that inadvertent non-compliance could contribute to the risks, especially in connection with possible spray drift and off-site effects. The Committee was conscious of the controls to address these risks, but considered the cumulative residual risk to be non-negligible. It thus considered the application in terms of clause 27.
- 4.57. Though some of the risks, costs and benefits are economic, the Committee was not able to meaningfully combine them using common units of measurement, nor using monetary valuations (refer to clause 34). Instead it ranked the non-negligible risks in order of significance. The sequence in paragraph 4.55 above is that ranking in order of decreasing significance.
- 4.58. The Committee noted that none of the above risks are novel to this substance – they apply equally to the equivalent product that is currently on the market. The Committee thus approached its balancing of risks, costs and benefits on the basis of this product substituting for either the existing diflubenzuron product, or for the more hazardous organophosphate products. The risks are thus either the same as (for diflubenzuron products) or less than (for organophosphate products), the alternatives.
- 4.59. In paragraphs 4.31 to 4.33 the Committee assessed the benefits of Clobber*25 WP and notes that the introduction of competition into the market for diflubenzuron products can be expected to lead to a reduction of costs to users, which should encourage the more widespread use of such products instead of the currently cheaper organophosphate products. To the extent that this occurs (and this cannot be predicted with any precision) the Committee concludes that the positive affects outweigh the adverse effects (section 29(1)).

Environmental User Charges

- 4.60. In the current absence of comprehensive criteria for undertaking such a consideration, no consideration has been given to whether or not environmental user charges should be applied to the substance which is the subject of this approval.

5. Decision

- 5.1. Having considered all the possible risks, costs and benefits 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 risks to the environment and to human health and safety that are more than negligible. The Committee is satisfied that the adverse effects associated with the importation or manufacture of the hazardous substance are outweighed by the positive affects. The extent to which the net effect is beneficial depends on the degree to which this substance substitutes for others, but the Committee is satisfied that any degree of substitution can be expected to be beneficial
- 5.2. In accordance with clause 36(2)(b) of the Methodology, the Committee records that, in reaching this conclusion, it has taken into account the controls imposed on the substance, all effects of the substance during its lifecycle, and the likely effects of the substance being unavailable (section 29). It has also applied the balancing tests in section 29 of the Act and clause 27 of the Methodology.
- 5.3. The Committee 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 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.
- 5.4. The application for importation and manufacture of the hazardous substance Clobber*25 WP is thus approved, with controls, as detailed in Appendix 1.

Mrs Jill White
Chair Hazardous Substances Committee

Date

Appendix 1 - Controls Applying to the Substance

Control Code ¹	Regulation ²	Explanation ³
Code	Hazardous Substances (Classes 6, 8 and 9 Controls) Regulations 2001	
T 1	Regulations 11-27	Limiting exposure to Clobber*25 WP (diflubenzuron): setting values for ADE, reference dose(RfD), PDE, TEL, prohibition of use of substances in excess of TEL. Toxic property controls. The limits are: ADE for diflubenzuron of 0.02 mg/kg bw/day. PDE _{FOOD} = 0.01 mg/kg bw/day PDE _{DRINKING WATER} = 0.004 mg/kg bw/day PDE _{INHALATION} = 0.002 mg/kg bw/day PDE _{DERMAL} = 0.002 mg/kg bw/day The sum of the PDEs is 0.018 mg/kg bw/day (18µg/kg bw/day). TEL _{INHALATION} is 0.003 mg diflubenzuron/m ³ air
T3	Regulations 5(1),6	Requirements for Keeping Records of use. Clobber*25 WP (diflubenzuron) is highly toxic to target organs (6.9A). Records should be kept in the form of spray diaries. The record must be kept for a minimum of three years following use and must be made available to an enforcement officer on request.
T4 and E6	Regulation 7	Requirements for equipment used to handle substances Any equipment used to handle toxic substances (eg spray equipment) must retain and/or dispense the substance in the manner intended, ie without leakage, and must be accompanied by sufficient information on the label, so that this can be achieved.
T7	Regulation 10	Restrictions on carriage of toxic substances on passenger service vehicles to quantities less than 0.5 kg

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 ERMA New Zealand and is also contained in the ERMA New Zealand User Guide to the Controls 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.

E1	Regulations 32-45	Limiting exposure to Clobber*25 WP(diflubenzuron), the environmental exposure limit (EEL) are: EEL _{marine water} = 0.2 µg diflubenzuron/L EEL _{fresh water} = 0.37 µg diflubenzuron/L
E2	Regulations 46-48	Restrictions on use of Clobber*25 WP in application areas These regulations relate to controls on application areas. An application (target) area is an area that the person using the substance either has control over or is otherwise authorised to apply the substance to. Where Clobber*25 WP is intentionally released into the environment as a pesticide, 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 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). Application Rates for Clobber*25 WP (diflubenzuron) Pasture: 50g diflubenzuron per hectare Mushrooms: 40g diflubenzuron per cubic metre incorporated into compost, or 4g in 2.5 litres of water per square metre, as a drench
Code	Hazardous Substances (Identification) Regulations 2001	
I1	Regulations 6, 7, 332-35, 36(1) – (7)	Identification requirements, duties of persons in charge, accessibility, comprehensibility, clarity and durability <u>General identification requirements</u> These controls relate to the duties of suppliers and persons in charge of hazardous substances with respect to identification (essentially labeling) (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)). <u>Regulation 6 – Identification duties of suppliers</u>

		<p>Suppliers of Clobber*25 WP must ensure it is labeled as required by regulations 9 and 14 (priority identifiers for ecotoxic and toxic substances), and regulations 18, 20 and 25 (secondary identifiers for ecotoxic and toxic substances) of the Identification regulations (see below) before supplying it to any other person. Suppliers must also ensure that there is no information supplied with the substance (or its packaging) that suggests it has hazardous properties that it does not have.</p> <p><u>Regulation 7 – Identification duties of persons in charge</u> Persons in charge of Clobber*25 WP must ensure they are identified 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 the substance within 2 seconds (Regulation 32), and the secondary identifier information available within 10 seconds (Regulation 33). Persons in charge must also ensure that the substance is not identified as belonging to hazard class that it does not belong to.</p> <p><u>Regulations 32 and 33 – Accessibility of information</u> All priority identifier Information (as required by Regulations 8-17) must be available within 2 seconds, eg. on the label</p>
I3	Regulation 9	<p><u>Priority identifiers for ecotoxic substances</u> This requirement specifies that Clobber*25 WP must be prominently identified as being ecotoxic. This information must be available to any person handling the substance within two seconds (Regulation 32) and can be provided by way of signal headings or commonly understood pictograms on the label.</p>
I9	Regulation 18	<p><u>Secondary identifiers for all hazardous substances</u> This control relates to detail required for Clobber*25 WP 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:</p> <ol style="list-style-type: none"> a) an indication (which may include its common name, chemical name, or registered trade name) that unequivocally identifies it, and b) enough information to enable its New Zealand importer, supplier, or

		<p>manufacturer to be contacted, either in person or by telephone, and</p> <p>c) 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, a description of each likely change and the date by which it is likely to occur.</p>
I11	Regulation 20	<p><u>Secondary identifiers for ecotoxic substances</u></p> <p>This control relates to the additional label detail required for Clobber*25 WP. This information must be accessible within 10 seconds (reg. 33) and could be provided on secondary panels on the product label. The following information must be provided:</p> <ul style="list-style-type: none"> • 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) • in the case of an ecotoxic substance of classification 9.2A, 9.2B or 9.2C, 9.3A, 9.3B, 9.4A, 9.4B or 9.4C, an indication of its general type of hazard (eg ecotoxic to terrestrial invertebrates) <p>These requirements could be addressed by statements on the label with respect to its action against both target and non-target organisms and the method of application used to avoid exposure to non-target organisms. A statement should be included warning against incorrect disposal in sensitive environments.</p>
I16	Regulation 25	<p><u>Secondary identifiers for toxic substances</u></p> <p>This control relates to the additional label detail required for Clobber*25 WP. This information must be accessible within 10 seconds (reg. 33) and could be provided on secondary panels on the product label. The following information must be provided:</p> <ul style="list-style-type: none"> • an indication of its general type and degree of toxic hazard (eg mild skin irritant) • an indication of the circumstances in which it may harm human beings • an indication of the kinds of harm it may cause to human beings, and the likely extent of each kind of harm

		<ul style="list-style-type: none"> • an indication of the steps to be taken to prevent harm to human beings • the name and concentration of any ingredient that would independently of any other ingredient, cause the substance to be classified as a class 6.9 substance • the name of any ingredient that would, independently of any other ingredient, cause the substance to be classified as a 6.1D. In addition, the concentration of the ingredient that would contribute the most to that classification must be provided.
I19	Regulations 29-31	<p>Additional information requirements, including situations where substances are in multiple packaging</p> <p><u>Alternative information in certain cases</u></p> <p><u>Regulation 30 – Substances in multiple packaging</u></p> <ul style="list-style-type: none"> • This regulation relates to situations when Clobber*25 WP is in multiple packaging and the outer packaging obscures some or all of the required substance information. In such cases, the outer packaging must: <ul style="list-style-type: none"> ○ be clearly labelled with all relevant priority identifier information ie the hazardous properties of the substance must be identified, or ○ be labelled or marked in compliance with either the Land Transport Rule 45001, Civil Aviation Act 1990 or the Maritime Safety Act 1994 as relevant, or ○ in the case of an ecotoxic substance, it must bear the EU pictogram “Dangerous to the Environment” (‘dead fish and tree’ on orange background), or ○ bear the relevant class label assigned by the UN Model Regulations <p><u>Regulation 31 – Alternative information when substances are imported</u></p> <p>This regulation relates to alternative information requirements for Clobber*25 WP when imported into New Zealand in a closed package or in a freight container and will be transported to their destination without being removed from that package or container. In these situations, it is sufficient compliance with HSNO if the package or container is labelled or marked in compliance with the requirements of the Land Transport Rule 45001.</p>
I21	Regulations 37-39, 47-50	<p><u>Documentation required in places of work</u></p> <p>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</p>

		<p>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 substances of specific hazard classifications are held in the workplace in quantities exceeding the levels as specified in Schedule 2 of the Identification Regulations. Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p> <p><u>Regulation 37 – Documentation duties of suppliers</u> A supplier must provide documentation containing all relevant information required by regulations 39-46 when selling or supplying to another person a quantity of Clobber*25 WP at or above the level specified in Schedule 2 for that classification (0.5kg), if the substance is to be used in a place of work and the supplier has not previously provided the documentation to that person.</p> <p><u>Regulation 38 – Documentation duties of persons in charge of places of work</u> The person in charge of any place of work where of Clobber*25 WP is present in quantities above those specified in Regulation 38 (and with reference to Schedule 2 of the Identification Regulations) ie 0.5kg, must ensure that every person handling the substance has access to the documentation containing all relevant information required by regulations 39-46. The person in charge must also ensure that the documentation does not contain any information that suggests the substance has hazardous properties it does not have.</p> <p><u>Regulation 39 – General content requirements for documentation</u> The documentation provided with Clobber*25 WP must include the following information:</p> <ul style="list-style-type: none"> • 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 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
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		<p>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</p> <ul style="list-style-type: none"> • 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 and concentration 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. <p><u>Regulation 48 – Location and presentation requirements for documentation</u> 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.</p> <p><u>Regulation 49 – Documentation requirements for vehicles</u> 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.</p> <p><u>Regulation 50 – Documentation to be supplied on request</u> 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.</p>
I23	Regulation 41	<p><u>Specific documentation requirements for ecotoxic substances</u> The documentation provided with of Clobber*25 WP must include the following information:</p> <ul style="list-style-type: none"> • 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 • its bio-concentration factor or octanol-water partition coefficient

		<ul style="list-style-type: none"> • its expected soil or water degradation rate • any EELs set by the Authority
I28	Regulation 46	<p><u>Specific documentation requirements for toxic substances</u></p> <p>The documentation provided with of Clobber*25 WP must include the following information:</p> <ul style="list-style-type: none"> • 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
I29	Regulations 51, 52	<p><u>Signage requirements</u></p> <p><u>Duties of persons in charge of places with respect to signage</u></p> <p>These controls specify the requirements for signage, in terms of content, presentation and positioning at places where Clobber*25 WP is held in quantities exceeding those specified in Schedule 3 of the Identification Regulations. Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p> <p>Signs are required:</p> <ul style="list-style-type: none"> • at every entrance to the building and/or location (vehicular and pedestrian) where Clobber*25 WP is present • at each entrance to rooms or compartments of Clobber*25 WP is present

		<ul style="list-style-type: none"> immediately adjacent to the area where Clobber*25 WP is located in an outdoor area <p>The information provided in the signage needs to be understandable over a distance of 10 metres and be sufficient to:</p> <ul style="list-style-type: none"> advise that the location contains Clobber*25 WP describe the general type and degree of hazard of Clobber*25 WP is (eg aquatic ecotoxin) where the signage is immediately adjacent to the Clobber*25 WP storage areas, describe the precautions needed to safely manage the substance (eg a 'No Smoking' warning near flammable substances).
Code	Hazardous Substances (Packaging) Regulations 2001	
P1	Regulations 5, 6, 7(1), 8	<p><u>General packaging requirements</u> 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.</p> <p><u>Regulation 5 – Ability to retain contents</u> Packaging for Clobber*25 WP 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°C to +50°C. The packaging must also maintain its ability to retain its remaining contents if part of the contents are 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.</p> <p><u>Regulation 6 – Packaging markings</u> Packages containing Clobber*25 WP 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 3 (Packaging Regulations) and the design of the packaging has been test certified as complying with those tests.</p> <p><u>Regulation 7(1) – Requirements when packing hazardous substance</u> When packing Clobber*25 WP, account must be taken of its physical state and properties, and packaging must be selected that complies with the requirements of</p>

		regulation 5, and regulations 9-21. <u>Regulation 8 – Compatibility</u> Clobber*25 WP must not be packed in packaging that has been previously packed with substances with which it is incompatible.
P3	Regulation 9	<u>Packaging requirements for substances packed in limited quantities</u> When certain hazardous substances are packaged in limited quantities, there is provision for them to be packaged to a lesser performance standard (as specified in Schedule 4 of the Packaging Regulations) than normally required. A list of those hazardous substances, and the maximum quantity of substance per package, that may be packaged to this lesser performance standard is provided in Schedule 5.
P13	Regulation 19	<u>Packaging requirements for toxic substances</u> The packaging requirements for class 6 substances are as follows: <ul style="list-style-type: none"> • Packages containing more than 0.5kg (500 g) or 0.1 L (100 mL) (per package) of a substance classified as 6.1B, 6.6A, 6.7A, 6.8A or 6.9A must comply with the tests set out in Schedule 2 (UN PGII). Packages containing less than 0.5kg (500 g) or 0.1 L (100 mL) (per package) may be packaged in packaging that complies with the tests set out in Schedule 4. (i.e. Reg 9 above) • Packages containing more than 3kg or 1L (per package) of a substance classified as 6.1C, 6.5A, 6.5B, 6.6B, 6.7B, 6.8B, 6.8C or 6.9B must comply with the tests set out in Schedule 3 (UN PGIII). Packages containing less than 3kg or 1L (per package) may be packaged in packaging that complies with the tests set out in Schedule 4. (i.e. Reg 9 above) • Any substance of hazard classification 6.1D, 6.1E, 6.3A, 6.3B or 6.4A that is offered for sale in a package of less than 2.5 L or 2.5kg must be in child resistant packaging. However, if the substance is for use in a place of work to which children to not have access, this requirement is not mandatory.
PG2	Schedule 2	This schedule provides the test methods for packaging required to be tested in accordance with this schedule. The tests in Schedule 2 correlate to the packaging requirements of UN Packaging Group II.
PG3	Schedule 3	<u>Packaging requirements equivalent to UN Packing Group III</u> This schedule provides the test methods for packaging required to be tested in accordance with this schedule. The tests in Schedule 3 correlate to the packaging requirements of UN Packaging Group III.

Code	Hazardous Substances (Disposal) Regulations 2001	
D4	Regulation 8	<p><u>Disposal requirements for toxic and corrosive substances</u></p> <p>A class 6 or 8 substance must be disposed of by:</p> <ul style="list-style-type: none"> • treating the Clobber*25 WP 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 Clobber*25 WP 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) set by the Authority for that substance; or • exporting Clobber*25 WP from New Zealand as a hazardous waste
D5	Regulation 9	<p><u>Disposal requirements for ecotoxic substances</u></p> <p>A class 9 substance, ie Clobber*25 WP must be disposed of by:</p> <ul style="list-style-type: none"> • treating Clobber*25 WP 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 Clobber*25 WP 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 EEL (environmental exposure limit) set by the Authority for that substance; or • exporting Clobber*25 WP from New Zealand as a hazardous waste
D6	Regulation 10	<p><u>Disposal requirements for packages</u></p> <p>This control gives the disposal requirements for packages that contained Clobber*25 WP 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.</p>

D7	Regulations 11, 12	<p><u>Information requirements</u></p> <p>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 Clobber*25 WP that exceeds the trigger levels as specified in Schedule 1 of the Disposal Regulations. Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p> <p>Information must be provided on appropriate methods of disposal and information may be supplied warning of methods of disposal that should be avoided, ie 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).</p>
D8	Regulations 13, 14	<p><u>Documentation requirements</u></p> <p>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 a hazardous substance that exceeds the trigger levels as specified in Schedule 2 of the Disposal Regulations. Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p> <p>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).</p>
Code	Hazardous Substances (Emergency Management) Regulations 2001	
EM1	Regulations 6, 7, 9 – 11	<p>Level 1 emergency management information: General requirements</p> <p>These controls relate to the provision of emergency management information (essentially on the label) that must be provided with Clobber*25 WP when present in quantities exceeding the trigger levels as listed in Schedule 1 of the Emergency Management Regulations. Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p>

		<p>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)).</p> <p>Regulation 11 provides for the option of complying with the information requirements of the transport rules when the substance is being transported.</p>
EM6	Regulation 8(e)	<p><u>Information requirements for toxic substances</u></p> <p>The following information must be provided when a toxic substance of class 6.1, 6.3, 6.4 or 6.5 is present in quantities exceeding the trigger levels as listed in Schedule 1 of the Emergency Management Regulations.</p> <ul style="list-style-type: none"> • A description of the usual symptoms of exposure • A description of the first aid to be given • A 24-hour emergency service telephone number
EM7	Regulation 8(f)	<p><u>Information requirements for ecotoxic substances</u></p> <p>The following information must be provided with ecotoxic substances when present in quantities exceeding the trigger levels as listed in Schedule 1 of the Emergency Management Regulations.</p> <ul style="list-style-type: none"> • 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	Regulations 12-16, 18-20	<p><u>Level 2 emergency management information requirements</u></p> <p>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 hazardous substances are sold or supplied, or held in a workplace, in quantities equal to or greater than the quantities specified in Schedule 2 (Emergency Management Regulations). Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p> <p>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.</p> <p>Regulation 18 provides accessibility requirements (documentation to be available within 5 minutes) and regulation 19 provides requirements for presentation with respect to comprehensibility and clarity. These requirements correspond with those relating to documentation required by the Identification regulations (code I21).</p>
EM11	Regulations 25-34	<p><u>Level 3 emergency management requirements – emergency response plans</u></p> <p>These regulations relate to the requirement for an emergency response plan to be available at any place (excluding aircraft or ships) where hazardous substances are held (or reasonably likely to be held on occasion) in quantities equal to or greater than those specified in Schedule 4 (Emergency Management Regulations). Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p> <p>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 29-30. Requirements relating to the availability of equipment, materials and people are provided in regulation 31, requirements regarding the availability of the plan is provided in regulation 32 and requirements for testing the plan are described in regulation 33.</p>

EM12	Regulations 35-41	<p><u>Level 3 emergency management requirements – secondary containment</u></p> <p>These regulations relate to the requirement for a secondary containment system to be installed at any fixed location where liquid (or liquefiable) hazardous substances are held in quantities above those specified in Schedule 4 of the Emergency Management Regulations. Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p> <p>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 4L 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).</p>
EM13	Regulation 42	<p><u>Level 3 emergency management requirements – signage</u></p> <p>These controls relates to the provision of emergency management information on signage at places where hazardous substances are held at quantities equal to or greater than the quantities specified in Schedule 5. Where a substance triggers more than one hazard classification, the most stringent quantity generally applies.</p> <p>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.</p>