

DECISION TO REASSESS SUBSTANCES

12 November 2021

Summary

Application code	APP204275
Application type	To reassess any hazardous substance under section 63C of the Hazardous Substances and New Organisms Act (“the Act”)
Applicant	The Chief Executive (“CE”) of the Environmental Protection Authority
Consultation period	28 June 2021 – 11 August 2021
Purpose of the application	To update the substance classifications of the approvals listed in Appendix 1 to implement the new classification system – section 63C of the Act.
Submissions received	Adama Agrofresh BASF New Zealand Ltd Nufarm Reckitt Hygiene Sipcam Pacific Australia Pty Ltd Syngenta Crop Protection Limited Technical Compliance Consultants (2 submissions representing 2 submitters) Vetmed Consultants
Considered by	A Decision-making Committee (“the Committee”) of the EPA Dr Kerry Laing (Chair); Dr Stephen Tredwell.
Decision	To agree with the changes to the approvals as listed in Appendix 1

Executive summary

The Environmental Protection Authority (EPA) has updated New Zealand's hazardous substance classification system to incorporate elements of Revision 7 (2017) of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). This has been achieved by issuing the Hazardous Substances (Hazard Classification) Notice 2020.

This update will ensure New Zealand has an internationally-aligned classification system that facilitates trade and increases the effectiveness of chemical management under the Hazardous Substances and New Organisms Act 1996 (the Act).

The update of the classification system necessitates updating the hazard classifications of all existing approvals. Where there is a change to the hazard classification system under the Act, section 63C enables the updating of the approvals through the modified reassessment of the substances. This enables the EPA to vary the hazard classification of a substance, and vary controls and descriptions if required to give effect to the new classification system.

This decision document covers the reassessment of substances that were either approved or reassessed between 1 January 2020 and 29 April 2021.

In making a decision on whether to approve the reassessment of these substances, the Committee firstly took into account best international practices and standards for the safe management of hazardous substances, and considered all the effects associated with the reassessment, along with applying the sections in Part 2 of the Act.

1 Background

- 1.1. As approved by the EPA Board, the EPA has updated New Zealand's hazardous substance classification system to incorporate elements of Revision 7 (2017) of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
- 1.2. The GHS is an internationally-agreed system developed by the United Nations (UN) to classify chemicals and to communicate their hazards through labels and safety data sheets. Updating New Zealand's classification system will ensure New Zealand has an internationally-aligned classification system that facilitates trade and increases the effectiveness of chemicals management under the Act.
- 1.3. The updating of the classification system has required a new Hazard Classification Notice to be issued, updates to several other EPA notices¹, and updates to all existing approvals to assign new hazard classifications in accordance with the Hazardous Substances (Hazard Classification) Notice 2020.
- 1.4. Where there is a change to the hazard classification system under the Act, section 63C enables the updating of approvals through the modified reassessment of the substances. This enables the EPA to vary the hazard classification of a substance, and vary controls and descriptions if required to give effect to the new classification system. There is no need for a decision on grounds under section 62 before using section 63C in this way.
- 1.5. The majority of substances approved or reassessed before 1 January 2020 were updated at time of the implementation of GHS on 30 April 2021.²
- 1.6. This decision document covers the reassessment of substances that were either approved or reassessed between 1 January 2020 and 29 April 2021. The full list of substances covered by this reassessment is included in Appendix 1 to this document.
- 1.7. In making a decision on whether to approve this reassessment of these substances, the Committee had to take into account best international practices and standards for the safe management of hazardous substances, and consider all the effects associated with the reassessment, and apply the Hazardous Substances and New Organisms (Methodology) Order 1998.
- 1.8. It was also necessary for the Committee to consider other relevant sections of the Act, namely sections 4 to 8. These sections are the purpose of the Act, the principles and matters to consider in order to achieve the purpose of the Act and the requirement to exercise caution when managing adverse effects and take into account the principles of the Treaty of Waitangi.

2 Consultation and notification

Notification

- 2.1 The General Manager Hazardous Substances and New Organisms decided to use the EPA's discretionary power in section 63C(4) of the Act to conduct a targeted consultation on this application.
- 2.2 The submission period began on 28 June 2021 and closed on 11 August 2021, which exceeded the required minimum statutory time frame of 30 working days.

¹ EPA notices are approved by the EPA Board.

² There are approximately 250 pre-January 2020 approvals that have not yet been reissued.

- 2.3 The proposed new classifications provided in the consultation document were assigned solely on the basis of the substances current classification. No new hazard data or information was sought or assessed.

Response from other government agencies

- 2.4 The Ministry for the Environment, WorkSafe New Zealand, and the Agricultural Compounds and Veterinary Medicines group (ACVM) of the Ministry for Primary Industries were advised of the consultation and notified of the submission period.
- 2.5 ACVM provided comments regarding this reassessment. They noted that consequential changes to the labels of trade name products registered under the ACVM Act could be incorporated by registrants at the same time as another label change to ease the processing workload. They also noted that there may be manufacturing requirements (such as changes to active ingredient specifications/impurities) that will result in consequential applications under the ACVM Act. However, they considered that their workload would not be significantly affected.
- 2.6 The Committee took these comments into account in making its decision.

Submissions

- 2.7 Ten submissions were received regarding this reassessment. Seven submissions were in support of the proposed changes. One submitter disagreed with the classification change of a particular substance and two submitters raised issues with the wording change of the controls in two separate approval documents. Changes were made to two of the proposed approvals as a result.
- 2.8 The Committee took these submissions into account in making its decision and noted that the EPA update report responded to the issues raised.
- 2.9 One submitter requested a hearing. However, the EPA contacted them to address the issue raised and they have subsequently withdrawn their request.
- 2.10 The Committee noted that three statutory timeframes specified in section 59 of the Act have been exceeded, namely:
- the time between formal receipt and notification of the application is greater than 10 working days (s 59(1)(a)); and
 - the time from the date of public notification for the receipt of submissions is greater than 30 working days (s 59(1)(c)); and
 - the time between the closing date for submissions and consideration is greater than 30 working days (s 59(1)(d))
- 2.11 The Committee considered that no submitters had been unduly prejudiced by these timeframe exceedances and, under their delegated authority, waived those timeframes under s 59(4).

3 Consideration

Information available for consideration

- 3.1 The information available to the Committee for consideration of this reassessment consisted of:
- A correlation table mapping the previous HSNO alpha-numeric classifications to the new classifications

- the list of all identified substances, their approval numbers and hazard classifications (both current and new)
 - the Consultation Document
 - the submissions
 - the EPA Update Report
 - 71 draft approval documents.
- 3.2 After considering all relevant information, the Committee decided that it had sufficient information to make a decision on this reassessment. Further comments on this information can be found below.

Hazard classifications

- 3.3 A correlation table mapping the previous HSNO alpha-numeric classifications to the new classifications is provided in Appendix 2.³ Both the old and new classifications for each approval included in this decision document are provided in Appendix 1. The Committee noted that in some instances there were slight variations from the direct correlations in the table.
- 3.4 The Committee considered all of the available information provided in the consultation, the submissions, additional information, and the EPA Update Report.
- 3.5 The Committee was satisfied that the proposed changes to the hazard classifications and controls, with the revisions as noted in the EPA Update Report, should apply.

Assessment of effects associated with the reassessment

- 3.6 The effects associated with this reassessment have been considered previously as part of the process to implement the GHS 7 hazard classification system.
- 3.7 The Committee considered that the change in hazard classifications of the substances will have no effect on the overall risks to human health for workers, bystanders, and the public as no material changes were made to the controls.
- 3.8 The Committee considered that the change in hazard classifications of the substances will have no effect on the risks to the environment, including potential impacts on native or valued species and/or ecosystems, as no material changes were made to the controls.
- 3.9 The Committee considered that there will be some economic benefits associated with the change to the hazard classifications of the substances, due to increased international alignment. Specifically the change allows the production of globally accepted labels and safety data sheets by New Zealand manufacturers and importers.
- 3.10 The Committee considered that any potential costs incurred by industry to make changes to their existing labels and safety data sheets to reflect the classification change, is mitigated by providing a sufficient period of time to update these items. The Committee noted that the transitional period currently provided for in the Hazardous Substances (Labelling) Notice 2017, Hazardous Substances (Safety Data Sheet) Notice 2017 and Hazardous Substances (Packaging) Notice 2017 has been extended until 30 April 2025.
- 3.11 The Committee considered that there will be no change to the effects of the substances on the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, wāhi

³ The process of updating hazard classifications by mapping from HSNO to GHS is described in the consultation report.

tapu, valued flora and fauna and other taonga, and therefore these risks will be unchanged from those identified when the substances were originally approved.

- 3.12 The Committee considered that there are some positive effects on New Zealand's international obligations associated with the proposed change to the hazard classifications of the substances in terms of harmonising chemical classifications with other major jurisdictions. No other effects on any international obligations were identified.
- 3.13 Taking into account the effects identified above, the Committee considered that there was an overall positive effect in making the change to the hazard classifications of the approvals.

Best international practices and standards for the safe management of hazardous substances

- 3.14 The GHS is recognised as representing best international practice and standards for the safe management of hazardous substances and has been adopted by more than 50 countries, including all of New Zealand's major trading partners. Therefore, applying the updated classifications to the hazardous substances captured by this reassessment will ensure that they are managed in accordance with international best practice and standards for the safe management of hazardous substances.

4 Conclusion and decision

- 4.1 Pursuant to section 63C of the Act, the Committee considered this application to reassess the substance approvals identified in Appendix 1 to update their hazard classifications.
- 4.2 In making its decision, the Committee took into account best international practices and standards for the safe management of hazardous substances and all the effects associated with the reassessment, and applied the Hazardous Substances and New Organisms (Methodology) Order 1998.
- 4.3 The Committee has considered the matters raised in sections 4 to 8 of the Act, but, given the nature of the reassessment to apply the updated hazard classification is administrative, there are no further considerations required in order to achieve the purpose of the Act.
- 4.4 The Committee considered the changes to the approvals, to give effect to the change in the hazard classification system, were appropriate and, therefore, approved the application. This decision will have effect immediately.
- 4.5 The transitional provisions of the Labelling Notice, Safety Data Sheets Notice and Packaging Notice apply to these reassessed approvals for the transitional period which ends on 30 April 2025.



Signed by:

Date:

Dr Kerry Laing
Chair, Decision-making Committee
Environmental Protection Authority

12 November 2021

Appendix 1. Substances to be Reassessed

Table 1: List of substances to be reassessed with their old and new hazard classifications

Name	Approval Number	Old Classification	New Classification
Acierto	HSR101427	3.1D, 6.1D (O, I), 6.1E (D), 6.3A, 6.4A, 6.9B (O), 9.1A, 9.2A, 9.3C	Flammable liquid Category 4, Acute oral toxicity Category 4, Acute inhalation toxicity Category 4, Skin irritation Category 2, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates,
Actium	HSR101419	9.1A, 9.2A	Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms,
ADM.07000.H.3.A	HSR101468	6.1E (other), 6.9B (O), 9.1B	Specific target organ toxicity (repeated exposure) Category 2, Aspiration hazard Category 1, Hazardous to the aquatic environment chronic Category 2,
AGPRO Aqualon	HSR101446	3.1C, 6.1E (O), 8.3A, 6.5B, 6.9B (O), 9.1B, 9.2A, 9.3C	Flammable liquid Category 3, Serious eye damage Category 1, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment chronic Category 2, Hazardous to soil organisms, Hazardous to terrestrial vertebrates,
AGPRO Hatchet	HSR101444	6.1E (O), 6.4A, 6.5B, 6.9B (O), 9.1A, 9.2A	Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms,
Amicus	HSR101440	6.7B, 9.1A	Carcinogenicity Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,

Name	Approval Number	Old Classification	New Classification
AU86011	HSR101417	6.1D (O, I), 6.1E (D), 6.3A, 6.4A, 6.5B, 6.8B, 6.9A (O), 9.1A, 9.2A, 9.3B	Acute oral toxicity Category 4, Acute inhalation toxicity Category 4, Skin irritation Category 2, Eye irritation Category 2, Skin sensitisation Category 1, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates,
Belanty	HSR101448	9.1B, 9.3C	Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates,
Betamix	HSR101472	6.4A, 6.5B, 6.9B (O), 9.1A	Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,
Bluefume	HSR101475	3.1A, 6.1A (O, D, I), 6.3A, 6.4A, 6.8B, 6.9A (O, I), 6.9B (D), 9.1A, 9.2A, 9.3A, 9.4A	Flammable liquid Category 1, Acute oral toxicity Category 1, Acute dermal toxicity Category 1, Acute inhalation toxicity Category 1, Skin irritation Category 2, Eye irritation Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates,
Boxer Gold	HSR101435	3.1D, 6.1E (O), 6.3B, 6.9B (O, I), 9.1A, 9.2A	Flammable liquid Category 4, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms,
Caley Iblon	HSR101413	6.1E (I), 8.3A, 6.5B, 6.9B (O), 9.1B, 9.3C	Serious eye damage Category 1, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates,
Contact Organics HomeSafe Weed Terminator N Concentrate	HSR101453	3.1D, 6.3A, 8.3A, 6.5B, 9.1A	Flammable liquid Category 4, Skin irritation Category 2, Serious eye damage Category 1, Skin sensitisation Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 2,

Name	Approval Number	Old Classification	New Classification
Contact Organics LocalSafe Weed Terminator N Concentrate	HSR101464	3.1D, 6.3A, 8.3A, 6.5B, 9.1A	Flammable liquid Category 4, Skin irritation Category 2, Serious eye damage Category 1, Skin sensitisation Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 2,
Contact Organics Weed Terminator Plus Ready-to-Use Spray Mixture	HSR101465	6.5B, 6.9B (I), 9.1B	Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Designed for biocidal action,
Custodia	HSR101411	6.1D (O), 6.8B, 6.9B (O), 9.1B,	Acute oral toxicity Category 4, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment chronic Category 2,
Doxem Precise Insecticide	HSR101471	6.5B, 9.1D, 9.4B	Skin sensitisation Category 1, Hazardous to terrestrial invertebrates,
ECOTHOR Active Nature No More Mosquito Larvae	HSR101466	9.1D	Designed for biocidal action,
Family Protection Aerogard Home Crawling Insect Killer	HSR101455	6.3B, 6.5B, 9.1A, 9.4B	Skin sensitisation Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to terrestrial invertebrates,
Family Protection Aerogard Home Flying Insect Killer	HSR101454	6.3B, 6.5B, 9.1A, 9.4B	Skin sensitisation Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to terrestrial invertebrates,
Family Protection Aerogard Home Multi Insect Killer	HSR101456	6.3B, 6.5B, 9.1A, 9.4B	Skin sensitisation Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to terrestrial invertebrates,

Name	Approval Number	Old Classification	New Classification
Final Bite	HSR101420	9.1C	Designed for biocidal action,
FramePro LF	HSR101474	6.1E (O), 6.3B, 6.4A, 6.5B, 6.8B, 6.9A (O), 9.1D, 9.3C,	Eye irritation Category 2, Skin sensitisation Category 1, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1,
Grandevo	HSR101407	9.1C,	Hazardous to the aquatic environment chronic Category 3,
Grunt 600 Granulated	HSR101452	6.1D (O), 6.3B, 9.3C	Acute oral toxicity Category 4, Hazardous to terrestrial vertebrates,
Hexaro	HSR101463	6.1E (O), 6.4A, 6.5B, 6.9B (O), 9.1A, 9.3C	Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates,
Instant Mite Killer	HSR101469	6.3B, 8.3A, 9.1D	Serious eye damage Category 1, Designed for biocidal action,
J57.79	HSR101402	6.1E (O), 6.3A, 6.4A, 6.8B, 9.1D,	Skin irritation Category 2, Eye irritation Category 2, Reproductive toxicity Category 2,
Kusabi	HSR101410	9.1C,	Hazardous to the aquatic environment chronic Category 2,
Lawn Builder Ready to Use	HSR101432	9.1D, 9.2A	Hazardous to the aquatic environment chronic Category 3, Hazardous to soil organisms,
Luna 250 SC	HSR101447	6.5B, 6.9B (O), 9.1C	Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment chronic Category 3,
Max-Out 540 Herbicide	HSR101458	9.1B	Hazardous to the aquatic environment chronic Category 2,
MFS	HSR101421	6.1D, 6.3A, 8.3A, 6.8B, 6.9B (O), 9.3C	Acute oral toxicity Category 4, Skin irritation Category 2, Serious eye damage Category 1, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to terrestrial vertebrates,

Name	Approval Number	Old Classification	New Classification
Monotec	HSR101431	6.1C (O), 6.3B, 8.3A, 6.5B, 9.1A, 9.2B, 9.3A	Acute oral toxicity Category 3, Serious eye damage Category 1, Skin sensitisation Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates,
Mortein Powergard All in One Insect Killer - Eucalyptus	HSR101450	2.1.2A, 6.3A, 6.4A, 6.5B, 9.1A, 9.4B	Aerosol Category 1, Skin irritation Category 2, Eye irritation Category 2, Skin sensitisation Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 2, Hazardous to terrestrial invertebrates,
Norshield 45WG	HSR101409	6.1E (I), 6.9B (O), 9.1A, 9.3B,	Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates,
NOVELLUS FUNGICIDE	HSR101422	6.4A, 9.1D	Eye irritation Category 2, Designed for biocidal action,
NPD 100 PLUS	HSR101436	3.1A, 6.1E (O, Other), 6.3B, 6.7B, 6.9B (O, D, I), 9.1B, 9.3C	Flammable liquid Category 1, Carcinogenicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Aspiration hazard Category 1, Hazardous to the aquatic environment chronic Category 2,
Overt Cockroach Gel Bait	HSR101459	6.5B, 9.1D, 9.4B	Skin sensitisation Category 1, Hazardous to terrestrial invertebrates,
Permethor Shield Liquid Insecticide	HSR101476	3.1D, 6.1D (O), 6.1E (Other), 6.3B, 6.9B (O), 9.1A, 9.3B, 9.4A	Flammable liquid Category 4, Acute oral toxicity Category 4, Specific target organ toxicity (repeated exposure) Category 2, Aspiration hazard Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates,
PG0001	HSR101412	6.1D (O), 6.3B, 6.4A, 6.5B, 6.8B, 6.9A (O), 6.9B (I), 9.1A, 9.3B, 9.4A	Acute oral toxicity Category 4, Eye irritation Category 2, Skin sensitisation Category 1, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1, Hazardous to the aquatic environment acute

Name	Approval Number	Old Classification	New Classification
			Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates,
PG0002	HSR101442	9.1A, 9.4B	Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial invertebrates,
Protect-us MultiAg Insecticide	HSR101438	6.1D (O), 8.3A, 6.5B, 6.9B (O), 9.1A, 9.2B, 9.3B, 9.4A	Acute oral toxicity Category 4, Serious eye damage Category 1, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates,
Prothago	HSR101428	6.1D (O), 6.1E (I), 6.5B, 6.9B (O), 9.1B, 9.3B	Acute oral toxicity Category 4, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates,
Protim Optimum HF Premix	HSR101473	3.1D, 6.1D (O, I), 6.1E (D), 6.3B, 6.4A, 6.5B, 6.8B, 6.9B (O), 9.1A, 9.3C, 9.4C,	Flammable liquid Category 4, Acute oral toxicity Category 4, Acute inhalation toxicity Category 4, Eye irritation Category 2, Skin sensitisation Category 1, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,
Protim Optimum LO 0.6% and Protim Optimum LO 1.2%	HSR101403	3.1C, 6.1E (Other), 6.3A, 6.5B, 6.7B, 6.8B, 9.1A, 9.4B,	Flammable liquid Category 3, Skin irritation Category 2, Skin sensitisation Category 1, Carcinogenicity Category 2, Reproductive toxicity Category 2, Aspiration hazard Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,
Protim Optimum LO 2.0%	HSR101404	3.1C, 6.1E (Other), 6.3A, 6.5B, 6.7B, 6.8B, 6.9B (O, D) 9.1A, 9.4B,	Flammable liquid Category 3, Skin irritation Category 2, Skin sensitisation Category 1, Carcinogenicity Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Aspiration hazard Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,

Name	Approval Number	Old Classification	New Classification
Protim Optimum PTB 0.6% and Protim Optimum PTB 1.2%	HSR101405	3.1D, 6.1E (Other), 6.5B, 6.7B, 6.8B, 9.1A, 9.4B,	Flammable liquid Category 4, Skin sensitisation Category 1, Carcinogenicity Category 2, Reproductive toxicity Category 2, Aspiration hazard Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,
Protim Optimum PTB 2%	HSR101406	3.1D, 6.1E (Other), 6.5B, 6.7B, 6.8B, 6.9B (O, D), 9.1A, 9.3C, 9.4B,	Flammable liquid Category 4, Skin sensitisation Category 1, Carcinogenicity Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Aspiration hazard Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,
Revystar Fungicide	HSR101415	6.1D (O, I), 6.3A, 6.4A, 6.5B, 6.9B (O), 9.1B, 9.3C	Acute oral toxicity Category 4, Acute inhalation toxicity Category 4, Skin irritation Category 2, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial vertebrates,
Rodenthor Gel Rodenticide	HSR101434	6.1E (O), 6.9B (O), 9.1D	Specific target organ toxicity (repeated exposure) Category 2, Designed for biocidal action,
RXI	HSR101429	6.1D (O), 6.3A, 6.4A, 6.6B, 6.7B, 6.9B (O), 9.3C	Acute oral toxicity Category 4, Skin irritation Category 2, Eye irritation Category 2, Germ cell mutagenicity Category 2, Carcinogenicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to terrestrial vertebrates,
Scotts Lawn Builder Weed Feed and Green Up	HSR101416	6.3B, 6.4A, 6.9B (O), 9.1D, 9.2A, 9.3C	Eye irritation Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment chronic Category 3, Hazardous to soil organisms, Hazardous to terrestrial vertebrates,
Sledge 700WG	HSR101461	6.8B, 6.9A (O), 9.1A	Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1, Hazardous to the aquatic environment acute Category 1,
SmartFresh Inbox	HSR101433	9.1C	Non Hazardous

Name	Approval Number	Old Classification	New Classification
Soletto	HSR101457	6.1E (O), 6.7B, 6.9B (O), 9.1A, 9.2A	Carcinogenicity Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 2, Hazardous to soil organisms,
Surefire Flystar Bait	HSR101414	9.1B, 9.2C, 9.3C, 9.4A	Hazardous to the aquatic environment chronic Category 2, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates,
Surefire Fortune 500 Multipurpose Insecticide and Termiticide	HSR101462	6.1C (O, D), 6.1D (I), 6.1E (Other), 6.3B, 6.4A, 6.8B, 6.9A (O, D, I), 9.1A, 9.2B, 9.3A, 9.4A	Acute oral toxicity Category 3, Acute dermal toxicity Category 3, Acute inhalation toxicity Category 4, Eye irritation Category 2, Reproductive toxicity Category 2, Specific target organ toxicity (repeated exposure) Category 1, Aspiration hazard Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates,
SureFire SPECTRUM 200SC Insecticide	HSR101408	6.1D (O), 6.5B, 6.9B (O, I), 9.1A, 9.2B, 9.3B, 9.4A,	Acute oral toxicity Category 4, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates, Hazardous to terrestrial invertebrates,
Suspension concentrate containing 240 g/L spirotetramat	HSR101437	6.4A, 6.5B, 6.8B, 9.1C	Eye irritation Category 2, Skin sensitisation Category 1, Reproductive toxicity Category 2, Hazardous to the aquatic environment chronic Category 3,
TCU 423 (Domestic)	HSR101418	6.1D (O, Other), 6.3A, 6.4A, 6.5B, 6.9A (O), 6.9B (I), 9.1A, 9.2A, 9.3C	Acute oral toxicity Category 4, Aspiration hazard Category 1, Skin irritation Category 2, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 1, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates,

Name	Approval Number	Old Classification	New Classification
Theta	HSR101445	8.3A, 6.9B (O, I), 9.1A, 9.4A	Serious eye damage Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to terrestrial invertebrates,
Twinax Xtra	HSR101430	6.1D (I), 6.3B, 6.5B, 6.9B (O), 9.1B, 9.2A	Acute inhalation toxicity Category 4, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment chronic Category 2, Hazardous to soil organisms,
Vayego	HSR101424	9.1A, 9.4A	Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to terrestrial invertebrates,
Velista Turf Fungicide	HSR101443	6.9B (O), 9.1A	Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,
Venacity	HSR101460	9.1A	Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,
Vitiseal	HSR101439	6.3B, 6.5B	Skin sensitisation Category 1,
Voltage	HSR101441	3.1D, 6.1D (O), 6.1E (Other), 6.3B, 6.4A, 6.5B, 6.9B (O), 9.1B, 9.2A, 9.3C	Flammable liquid Category 4, Acute oral toxicity Category 4, Eye irritation Category 2, Skin sensitisation Category 1, Specific target organ toxicity (repeated exposure) Category 2, Aspiration hazard Category 1, Hazardous to the aquatic environment chronic Category 2, Hazardous to soil organisms, Hazardous to terrestrial vertebrates,
Water dispersible granule containing 63.75% terbuthylazine and 11.25% hexazinone	HSR101467	6.1D (O), 6.3B, 6.4A, 6.9B (O), 9.1A, 9.2A, 9.3C	Acute oral toxicity Category 4, Eye irritation Category 2, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1, Hazardous to soil organisms, Hazardous to terrestrial vertebrates,

Name	Approval Number	Old Classification	New Classification
WB Permethrin	HSR101470	3.1D, 6.1D (O), 6.3A, 6.4A, 6.5B, 6.8A, 6.9B (O), 9.1A, 9.3B, 9.4A	Flammable liquid Category 4, Acute oral toxicity Category 4, Skin irritation Category 2, Eye irritation Category 2, Skin sensitisation Category 1, Reproductive toxicity Category 1, Specific target organ toxicity (repeated exposure) Category 2, Hazardous to the aquatic environment acute Category 1, Hazardous to the aquatic environment chronic Category 1,
WWES 319LS	HSR101423	6.8B, 9.1B	Reproductive toxicity Category 2, Hazardous to the aquatic environment chronic Category 2,

Table 1 ends

Appendix 2. Correlation Table

Table 2 below shows the conversion from the Pre-2021 HSNO classifications to their new hazard classifications.

Table 2: Correlation Table

Physical Hazards

Pre-2021 HSNO classification	Equivalent new classification
Explosives	
	unstable explosive
1.1 (A, B, C, D, E, F, G, J, L)	Explosive Division 1.1 (A, B, C, D, E, F, G, J, L)
1.2 (B, C, D, E, F, G, H, J, K, L)	Explosive Division 1.2 (B, C, D, E, F, G, H, J, K, L)
1.3 (C, F, G, H, J, K, L)	Explosive Division 1.3 (C, F, G, H, J, K, L)
1.4 (B, C, D, E, F, G, S)	Explosive Division 1.4 (B, C, D, E, F, G, S)
1.5D	Explosive Division 1.5D
1.6N	Explosive Division 1.6N
Flammable gases	
2.1.1A	flammable gas Category 1A flammable gas Category 1A pyrophoric gas flammable gas Category 1A chemically unstable gas A flammable gas Category 1A chemically unstable gas B flammable gas Category 1B <i>Note: Some flammable gases Category 1A may be additionally classified as pyrophoric and/or chemically unstable.</i>
2.1.1B	flammable gas Category 2
Aerosols	
2.1.2A (flammable aerosol)	aerosol Category 1 aerosol Category 2
	aerosol Category 3

Gases under pressure	
	compressed gas liquefied gas refrigerated liquefied gas dissolved gas
Flammable liquids	
3.1A	flammable liquid Category 1
3.1B	flammable liquid Category 2
3.1C	flammable liquid Category 3
3.1D	flammable liquid Category 4
Desensitised explosives	
3.2A (liquid) and 4.1.3A (solid)	desensitised explosive Category 1
3.2B (liquid) and 4.1.3B (solid)	desensitised explosive Category 2
3.2C (liquid) and 4.1.3C (solid)	desensitised explosive Category 3
	desensitised explosive Category 4
Flammable solids	
4.1.1A	flammable solid Category 1
4.1.1B	flammable solid Category 2
Self-reactive substances and mixtures	
4.1.2A	self-reactive substance or mixture Type A
4.1.2B	self-reactive substance or mixture Type B
4.1.2C	self-reactive substance or mixture Type C
4.1.2D	self-reactive substance or mixture Type D
4.1.2E	self-reactive substance or mixture Type E
4.1.2F	self-reactive substance or mixture Type F
4.1.2G	self-reactive substance or mixture Type G
Pyrophoric liquids, pyrophoric solids, self-heating substances and mixtures	

4.2A	pyrophoric liquid Category 1, or pyrophoric solid Category 1
4.2B	self-heating substance or mixtures Category 1
4.2C	self-heating substance or mixtures Category 2
Substances and mixtures which, in contact with water, emit flammable gases	
4.3A	substance or mixture which, in contact with water, emit flammable gases Category 1
4.3B	substance or mixture which, in contact with water, emit flammable gases Category 2
4.3C	substance or mixture which, in contact with water, emit flammable gases Category 3
Oxidising substances that are liquids or solids	
5.1.1A	oxidising liquid Category 1, or oxidising solid Category 1
5.1.1B	oxidising liquid Category 2, or oxidising solid Category 2
5.1.1C	oxidising liquid Category 3, or oxidising solid Category 3
Oxidising gases	
5.1.2A	oxidising gas Category 1
Organic peroxides	
5.2A	organic peroxide Type A
5.2B	organic peroxide Type B
5.2C	organic peroxide Type C
5.2D	organic peroxide Type D
5.2E	organic peroxide Type E
5.2F	organic peroxide Type F
5.2G	organic peroxide Type G

Corrosive to metals

8.1A	corrosive to metals Category 1
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Health Hazards

Pre-2021 HSNO classification	Equivalent new classification
Acute toxicity	
6.1A (oral, dermal, inhalation)	acute oral toxicity Category 1 acute dermal toxicity Category 1 acute inhalation toxicity Category 1
6.1B (oral, dermal, inhalation)	acute oral toxicity Category 2 acute dermal toxicity Category 2 acute inhalation toxicity Category 2
6.1C (oral, dermal, inhalation)	acute oral toxicity Category 3 acute dermal toxicity Category 3 acute inhalation toxicity Category 3
6.1D (oral, dermal, inhalation)	acute oral toxicity Category 4 acute dermal toxicity Category 4 acute inhalation toxicity Category 4
6.1E (oral, dermal, inhalation)	Note: acute toxicity Category 5 has not been adopted
Aspiration hazard	
6.1E (aspiration hazard)	aspiration hazard Category 1 Note: aspiration hazard Category 2 has not been adopted
Respiratory tract irritation	
6.1E (respiratory tract irritant)	specific target organ toxicity – single exposure Category 3 respiratory tract irritation
Skin corrosion/irritation	
8.2A	skin corrosion Category 1A
8.2B	skin corrosion Category 1B
8.2C	skin corrosion Category 1C

6.3A	skin irritation Category 2
6.3B	Note: skin irritation Category 3 has not been adopted
Serious eye damage/eye irritation	
8.3A	serious eye damage Category 1
6.4A	eye irritation Category 2 Note: The subcategories 2A and 2B have not been adopted.
Respiratory or skin sensitisation	
6.5A	respiratory sensitisation Category 1
6.5B	skin sensitisation Category 1
Germ cell mutagenicity	
6.6A	germ cell mutagenicity Category 1
6.6B	germ cell mutagenicity Category 2
Carcinogenicity	
6.7A	carcinogenicity Category 1
6.7B	carcinogenicity Category 2
Reproductive toxicity	
6.8A	reproductive toxicity Category 1
6.8B	reproductive toxicity Category 2
6.8C (additional category for effects on or via lactation)	additional effects on or via lactation
Specific target organ toxicity	
6.9A (oral, dermal, inhalation)	specific target organ toxicity – single exposure Category 1 specific target organ toxicity – repeated exposure Category 1
6.9B (oral, dermal, inhalation)	specific target organ toxicity – single exposure Category 2 specific target organ toxicity – repeated exposure Category 2
6.9B (narcotic effects)	specific target organ toxicity – single exposure Category 3 narcotic effects

Environmental Hazards

Pre-2021 HSNO classification	Equivalent new classification
Hazardous to the aquatic environment	
9.1A	hazardous to the aquatic environment acute Category 1 hazardous to the aquatic environment chronic Category 1
9.1B	hazardous to the aquatic environment chronic Category 2
9.1C	hazardous to the aquatic environment chronic Category 3
9.1D	hazardous to the aquatic environment chronic Category 4 Note: hazardous to the aquatic environment acute Category 2 and acute Category 3 have not been adopted
Hazardous to the terrestrial environment	
9.2A, 9.2B, 9.2C, 9.2D	hazardous to soil organisms
9.3A, 9.3B, 9.3C	hazardous to terrestrial vertebrates
9.4A, 9.4B, 9.4C	hazardous to terrestrial invertebrates
9.1D (designed for biocidal action)	designed for biocidal action