

Implementation of GHS 7

Updating individual
hazardous substances
approved or reassessed
between 1 January 2020
and 29 April 2021

Consultation document

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We seek public input

This document has been prepared by the Environmental Protection Authority (EPA) to inform affected stakeholders of proposals regarding the Globally Harmonized System for Classification and Labelling of Chemicals, Revision 7 (the GHS 7).

These proposals enable affected stakeholders to provide relevant information which will be taken into account in the decisions that the EPA makes regarding this work. We welcome your feedback.

You can make a submission using the attached submission form which includes the questions asked throughout this consultation document.

If you have any queries about this consultation document or submission process, please contact us at HSnotices@epa.govt.nz

Closing date for submissions

Please send your submissions to us no later than **5.00pm, 11 August 2021**.

How we will consider your submissions

The EPA will review all submissions received and prepare a submissions analysis report which will include an analysis of how the comments provided have been considered. All submissions will be received under section 63C of the Hazardous Substances and New Organisms Act 1996 (HSNO Act), and be considered by a decision-making committee (DMC) appointed by the EPA. A copy of your full submission will be published on the EPA website at www.epa.govt.nz.

Privacy

We will hold any personal information you provide in accordance with the Privacy Act 2020 which establishes certain principles with respect to the collection, use, and disclosure of information about individuals. However, all information will be subject to the Official Information Act 1982 (with limited exceptions).

Official Information

The Official Information Act 1982 (OIA) establishes principles with respect to the disclosure of information held by government agencies, including the EPA. The OIA states that information shall be made available unless there is good reason for withholding it. Any information you supply in the course of providing feedback will be subject to the OIA and may be released.

Please advise if you consider that the information you provide is confidential or commercially sensitive information and may therefore fall within the grounds for withholding information under the OIA.

If we receive an OIA request that could involve confidential or commercially sensitive information you shared, we will make efforts to consult with you. We will let you know we have received the request and will ask if you believe there are grounds to withhold the information. We will take your views into account when making our decision. We may either refuse the request and withhold the information or release all or part of the information requested.

More information about supplying confidential or commercially sensitive information under the HSNO Act is available on our website [here](#).

Disclaimer

The contents of this document does not reflect final EPA decisions. Proposed classifications and controls may be amended based on this consultation. This document does not alter the laws of New Zealand. All reasonable effort has been made to ensure that the information provided in this publication is accurate, up to date, and otherwise adequate in all respects. But this information is made available strictly on the basis that the EPA does not accept any responsibility or liability to any person or entity that chooses to rely on the information in this document.

Executive summary

1. The Environmental Protection Authority (EPA) has updated New Zealand's classification system for hazardous substances to a system based on Revision 7 (2017) of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
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. Applying the GHS 7 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 (HSNO Act).
3. The new classification system was implemented on 30 April 2021 by issuing a new Hazard Classification Notice. Several other EPA Notices were also updated to apply the new system.
4. All HSNO hazardous substance approvals also needed to be updated to assign GHS 7 classifications. A new set of 208 group standards was issued, 3,093 individual approvals were reissued and 222 individual approvals approved before 1 January 2020 were reassessed. We also took this opportunity to revoke over 5,000 duplicate individual approvals which could be managed under one or more group standards.
5. At the time of previous consultation (June 2020) we advised that we would reassess individual approvals approved or reassessed between 1 January 2020 and 29 April 2021 to apply the new classification system at a later date.

Proposals included in the current consultation

6. This consultation covers the modified reassessment of 71 individual approvals approved or reassessed between 1 January 2020 and 29 April 2021 to apply the new classification system. This modified reassessment is carried out under section 63C of the HSNO Act.
7. Any feedback on this consultation document should be restricted to commenting on the proposed classifications and controls of the reassessed approvals as a direct result of applying the new classification system. Any other matters relating to these approvals are out of scope of this consultation.
8. This is a targeted consultation to applicants of those 71 approvals, and submitters who submitted on the original application. We are requesting your feedback on the draft hazard classifications and controls for the substances that you were either the applicant or submitter on.
9. The proposals on which we are specifically seeking your feedback are listed in Table 1 below:

Table 1: List of proposals

Proposal number	Proposal
Proposal 1	To assign proposed GHS 7 classifications to all individual hazardous substances approved or reassessed between 1 January 2020 and 29 April 2021. Any substance that became non-hazardous due to not adopting certain GHS 7 classifications will be marked as non-hazardous.
Proposal 2	To update the controls placed on substances approved or reassessed between 1 January 2020 and 29 April 2021 to apply the new hazard classification system.

10. Each recipient of this consultation document will get a separate appendix comprising of documents that contain the proposed updated hazard classification and proposed controls for each substance that they were a submitter or applicant on. There will be one document per substance.

Next steps

11. Submissions on the proposals included in this consultation document should be lodged with the EPA by 5.00pm on 11 August 2021 to ensure your views can be taken into account in the EPA's decisions to update these 71 approvals.
12. At the close of the consultation period, the EPA will review each submission and prepare a submissions analysis report. This report will provide a summary of the submissions, and our recommendations, taking into account the submissions received. The report will be published on the EPA website.
13. A decision-making committee (DMC) will be appointed and will review the submissions analysis report and the EPA's recommendations. The DMC will be asked to decide whether the individual approvals should be updated under section 63C of the HSNO Act with the updated classifications and controls proposed. A hearing will be held if the DMC considers it is necessary, or if a submitter has asked to be heard.

Introduction

14. This consultation document seeks feedback on the EPA's proposals to undertake a modified reassessment of the 71 substances approved or reassessed between 1 January 2020 and 29 April 2021 to apply the new classification system.
15. This document has been sent to applicants and submitters of these 71 approvals, as well as the Ministry for the Environment, WorkSafe, and the Ministry for Primary Industries.

Background

16. Hazardous substances in New Zealand are managed under several pieces of legislation with one of the key ones being the Hazardous Substances and New Organisms Act 1996 (HSNO Act). The HSNO Act sets the criteria that defines a substance as hazardous and provides a framework to assign particular hazard classifications to those substances.
17. The hazard classification determines the nature and level of the controls that are placed on a substance to manage any risks associated with those hazards. Many of these controls are set under HSNO such as controls on importers and manufacturers at the top of the supply chain (e.g. labelling, safety data sheets, packaging controls), controls to protect the environment, controls on the disposal of hazardous substances and controls to protect people in non-workplaces. Most HSNO controls are set in EPA notices¹.
18. Controls to manage the risks to people from hazardous substances used in the workplace, are set under the Health and Safety at Work Act 2015 (HSW Act), primarily in the HSW (Hazardous Substances) Regulations and HSW (Major Hazardous Facilities) Regulations.
19. On 30 April 2021, the EPA adopted a new hazard classification system based on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The GHS is an internationally-agreed system developed by the UN to classify chemicals based on their physical, health and environmental hazards and to communicate their hazards through labels and safety data sheets. The GHS was first published in 2003 and has been revised every two years since then. The previous HSNO classification framework, implemented in 2001, was based on a pre-published version of GHS and has not been updated until now.
20. Updating the classification system necessitated many changes, including:
 - Issuing a new Hazard Classification Notice; and
 - Revoking the old Classification Notice and Minimum Degrees of Hazard Notice, and making consequential changes to six other EPA notices, via the Amendments and Revocation Notice; and

¹ <https://www.epa.govt.nz/industry-areas/hazardous-substances/rules-for-hazardous-substances/epa-notices-for-hazardous-substances/>

- Issuing a new set of 208 group standards to replace references to the old HSNO alpha numeric classifications with GHS 7 classifications;
 - Revoking 5,360 individual approvals that fit within the scope of a different approval or group standard;
 - Reassessing 222 substances approved between 1 December 2017 and 1 January 2020 to apply the new classification system; and
 - Reissuing 3,093 substances approved before 1 December 2017 to apply the new classification system, and to update their controls to bring them into line with the legislative reforms that came into effect on 1 December 2017.
21. There are 71 substances that were approved between 1 January 2020 and 29 April 2021 to be reassessed to apply the new hazard classification.

This consultation document

22. A consequence of adopting GHS 7 is that all hazardous substance approvals need to be updated to convert their existing HSNO classifications to GHS 7 classifications.
23. This consultation document seeks feedback on the EPA's proposals to undertake a modified reassessment of the 71 substances approved or reassessed between 1 January 2020 and 29 April 2021, to apply the new classification system.

Updating HSNO approvals to apply GHS classifications

25. As a consequence of adopting GHS 7, all EPA hazardous substance approvals need to be updated to convert their current HSNO classifications to GHS 7 classifications.
26. Approvals issued after 1 December 2017 were issued under the new health and safety regime, i.e. they needed to comply with the new EPA notices and HSW Hazardous Substances Regulations immediately upon their approval. However, they were classified according to the old HSNO classification system and therefore the approvals need to be updated to convert the HSNO classifications to GHS 7 classifications.
27. This consultation covers the 71 individual approvals that were approved or reassessed between 1 January 2020 and 29 April 2021.
28. The legal mechanism to assign GHS 7 classifications to substances approved or reassessed after 1 December 2017 is a modified reassessment as provided by section 63C of the HSNO Act. Section 63C(5) requires the EPA to:
 - do everything reasonably practicable on its part to consult with all persons who, in its opinion, may be affected by the reassessment; and
 - give those persons a reasonable opportunity to make submissions and comments to the Authority on the reassessment; and
 - consider all submissions and comments received.
29. The EPA has chosen to do a targeted consultation only to the applicant and submitters (where applicable) for these substances. Each applicant and submitter will only receive information on the approvals that they were the applicant for, or submitter on.
30. Any submissions received will be considered by a decision-making committee (DMC). The DMC is appointed for the purpose of assessing the approvals to be reassessed under section 63C, and is given the powers the EPA has under the HSNO Act to reach a decision on whether the approvals should be issued with the proposed classifications and controls.
31. As part of the decision-making process, the DMC will also decide whether a hearing will be held in relation to the reassessed approvals. This will depend on whether the DMC considers a hearing to be necessary or whether a submitter has asked to be heard in the matter.
32. The DMC will then consider all the information before it, taking into account the matters in section 63C, before making a determination.
33. A new approvals document will be issued for each reassessed approval. This document will provide the substance's new classification, and list all the HSNO controls that apply to that substance. It will also include the substance's HSNO approval number, which will remain unchanged. It will also refer to the relevant controls under the HSW (Hazardous Substances) Regulations.

Proposals

Proposal 1 – Proposed GHS classifications for all individual approvals

To assign proposed GHS 7 classifications to all individual hazardous substances approved or reassessed between 1 January 2020 and 29 April 2021. Any substance that became non-hazardous due to not adopting certain GHS 7 classifications will be marked as non-hazardous.

Background and rationale

34. The previous HSNO hazard classification system was prescribed in the Minimum Degrees of Hazard Notice and Classification Notice. This framework was based on a pre-published version of GHS and comprises:
 - numbered classes indicating the intrinsic hazardous property of a substance
 - numbered subclasses indicating the type of hazard within that class of hazardous property
 - lettered categories indicating the degree of hazard of a substance.
35. The previous HSNO alpha-numeric numbering system has now been discontinued and all individual hazardous substance approvals need to be updated to convert their old HSNO classifications to the new GHS 7 classifications.
36. We have not adopted certain GHS classifications, notably acute toxicity Category 5, skin irritation Category 3, and aquatic toxicity acute Category 2 and Category 3. As a result, some substances have lost classification(s) and one has become non-hazardous.
37. In addition, the new terrestrial ecotoxicity hazard classifications have only been applied to agrichemicals, and active ingredients of certain agrichemicals. Some substances may also have “lost” one or more of their old HSNO classifications for this reason also.

Process to map HSNO to GHS classifications

38. A correlation table showing the relationship between the previous HSNO classifications and GHS 7 classifications, is provided in Appendix 2.
39. As the correlation table shows, the majority of HSNO classifications have a direct 1:1 correlation with GHS 7 classifications. Assigning GHS 7 classifications in most cases was therefore straightforward.
40. However, there are a few classifications where there is not a direct 1:1 correlation between the previous HSNO classification system and GHS 7. These are listed in Table 2 below, along with our approach for assigning GHS 7 classifications in these cases. Note that not

all of the classifications listed in this table are present in the substances you have been asked to make a submission on.

41. In addition, a few classifications exist in GHS that do not have a corresponding classification in the previous HSNO classification system. None of these classifications are relevant to the substances covered by this consultation but are listed below for completeness:

- unstable explosives
- non-flammable aerosols
- gases under pressure.

Table 2: List of classifications that do not have a 1:1 HSNO:GHS correlation

HSNO classification	GHS classification
Acute toxicity (subclass 6.1)	<p>The HSNO classifications for acute toxicity directly correlates to the GHS classifications for acute toxicity, i.e.:</p> <ul style="list-style-type: none"> • HSNO 6.1A maps to GHS acute toxicity Category 1 • HSNO 6.1B maps to GHS acute toxicity Category 2 • HSNO 6.1C maps to GHS acute toxicity Category 3 • HSNO 6.1D maps to GHS acute toxicity Category 4. <p>However, the GHS assigns a separate classification for each exposure route. Supporting information that was used in the original classification of substances was reviewed to determine the appropriate exposure route(s), and whether a 6.1E substance should be classified as an aspiration hazard or specific target organ toxicity – Category 3.</p>
Specific target organ toxicity (sub-class 6.9)	<p>The two HSNO classifications for target organ toxicity (6.9A and 6.9B) directly correlate to the two GHS classifications for specific organ target toxicity (STOT Category A and Category B) i.e. HSNO 6.9A maps to GHS Category 1 and HSNO 6.9B maps to GHS Category 2.</p> <p>However, the HSNO 6.9 classification does not have separate categories for repeated exposure or single exposure.</p> <p>The majority of 6.9 classifications were based on repeated exposure. The default position was therefore to assign STOT-repeated exposure (either Category 1 or 2 as relevant). If existing data were available to indicate a STOT single exposure was relevant, this classification was also assigned.</p>

HSNO classification	GHS classification
Aquatic ecotoxicity (sub-class 9.1)	<p>There are some differences in the way aquatic ecotoxicity classifications are assigned under GHS compared to the old HSNO classification system.</p> <p>Where necessary, supporting information relating to acute and chronic toxicity data, bioaccumulation and degradability was used to convert subclass 9.1 classifications into GHS classifications for acute and chronic aquatic ecotoxicity.</p>
Terrestrial ecotoxicity (sub-classes 9.2, 9.3 and 9.4)	<p>Substances that meet the definition of “agricultural” in the new Hazard Classification Notice that are currently classified in subclasses 9.2, 9.3, and 9.4 classifications were assigned the following terrestrial ecotoxicity classifications as relevant:</p> <ul style="list-style-type: none"> • hazardous to soil organisms • hazardous to terrestrial vertebrates • hazardous to terrestrial invertebrates.

42. GHS 7 classifications were assigned to substances as relevant using an automated process that applied a series of rules based on the substance’s existing HSNO classifications, the correlation table and classification criteria from both classification systems. Where necessary, we also took into account the relevant available information in the EPA hazard classification database for each substance.
43. The outputs from the automated process were reviewed by a subject matter expert focusing on classifications that were not 1:1. These were then further reviewed by a member of the EPA GHS project team.
44. Importantly, no new data or information was sought or assessed in determining the GHS 7 classifications². Any changes to the hazard classification of a substance beyond those necessary to implement the GHS 7 classification system, are outside the scope of this reassessment. Any such changes would require a subsequent reassessment under the HSNO Act.

² Other than for desensitised explosives and flammable gases.

List of proposed updated classifications

45. Proposed classifications have been assigned to all individual approvals and will become the legal classification at the end of this reassessment.
46. The proposed classifications for all individual approvals are provided as an appendix of separate documents to this consultation. Each appendix will be tailored to only have the individual approvals that you are the applicant for, or submitter on.

Question 1:

Do you have any comments regarding any proposed updated classification assigned to any individual hazardous substance approval?

Please note that we are only seeking comments on the accuracy of the mapping of existing HSNO classifications to updated classifications. Evaluation of new data that may change the existing HSNO hazard classification of a substance is outside the scope of this reassessment.

If you have any comments on any proposed updated classification, please provide the name and approval number of the relevant substance(s) and describe your comments in detail.

Proposal 2 – Control mapping

To update the controls placed on substances to apply the new hazard classification system.

Background and rationale

47. The substances that are part of this reassessment have all been assessed or reassessed after January 2020, and therefore the controls on them already take into account the HSW (Hazardous Substances) Regulations and the suite of EPA notices.
48. This reassessment is a modified reassessment that focuses on updating substances' existing hazard classifications to GHS 7 classifications. There may be a change to the default controls assigned to a substance due to the change in the hazard classifications. No substantial changes to additional controls were made, although minor amendments were made to a small number of approvals. These minor amendments were typically of the following nature:
 - changes to control wording to improve consistency with the way the same control was worded in re-issued approvals, e.g. for seed treatments and antifouling paints.
 - deletion of redundant additional controls where they duplicated an existing default requirement in the EPA Notices or HSW (Hazardous Substances) Regulations.

List of proposed controls

49. A new set of proposed controls has been assigned to individual approvals that will become the legal controls at the end of this reassessment. These controls are provided for substances that you either submitted on or were the applicant for, and has been provided as a separate appendix to this consultation.
50. We are requesting your feedback on these proposed controls, especially where there has been a change from the controls assigned when the substance was originally approved. We are especially interested in whether you believe there has been a change in the intent of the original controls, including whether you would have to do anything different under the new proposed controls other than what is required as a result of implementing the new hazard classification system. Note that under the scope of this reassessment, we cannot change the scope or intent of the original controls.
51. The original set of controls was extracted electronically from our internal hazardous substance database, and was manually cross checked against the original approval to ensure consistency between the original approval and the new approval documents.
52. Note that the list of controls now refers to the relevant Part of the HSW (Hazardous Substances) Regulations that applies, rather than referring to the individual regulations. This does not change the requirements of the substance under the HSW (Hazardous Substances) Regulations, they are just listed at a higher level, and as before, are listed for information only.

Question 2:

Do you have any comments regarding any proposed change to the controls assigned to any individual hazardous substance approval?

Please note that we are only seeking comments on the accuracy of the mapping of controls needed to apply the new classification system. Changing the intent of existing controls of a substance, is outside the scope of this reassessment.

If you have any comments on any proposed controls, please provide the name and approval number of the relevant substance(s) and describe your comments in detail.

Responding to this document

53. The EPA is seeking your feedback on the specific proposals 1 and 2 (Table 1, page 7) presented in this consultation document. Your contribution to this consultation is important as it will enable the EPA to make more informed decisions on the proposals in this consultation document.
54. This consultation document will be available for public comment until 5.00pm, 11 August 2021.
55. You can make a submission using the enclosed submission form, which includes the questions asked throughout this consultation document.

Hearing

56. If you have made a submission, you are able to indicate in your submission if you wish to be heard at a hearing. A hearing will be held if the DMC considers it is necessary or if a person had asked to be heard.

Posting and release of information

57. A copy of your full submission will be published on the EPA website at www.epa.govt.nz. Other than your name, your contact information will not be published on the EPA website.

Appendix 1 – Glossary of terms

Agrichemical means a substance used or intended for use in the direct management of plants and animals, or to be applied to the land, place, or water on or in which the plants and animals are managed, for the purposes of —

- managing or eradicating pests, including vertebrate pests; or
- maintaining, promoting, or regulating plant or animal health, productivity, performance or reproduction; or
- enhancing the effectiveness of an agrichemical used for the treatment of plants or animals; or
- mitigating environmental, sustainability, or climate change impacts; and

for the avoidance of doubt:

- includes any veterinary medicine, pesticide adjuvant, fertiliser, plant growth regulator, fumigant or domestic pesticide, and
- excludes any timber treatment chemical, antisapstain chemical and antifouling paint.

DMC means a HSNO decision-making committee

GHS means the Globally Harmonised System of Classification and Labelling of Chemicals, Seventh revised edition, 2017, published by the United Nations

HSNO Act means the Hazardous Substances and New Organisms Act 1996

HSW Act means the Health and Safety at Work Act 2015

HSW (Hazardous Substances) Regulations means the Health and Safety at Work (Hazardous Substances) Regulations 2017

Appendix 2 – Correlation table between HSNO classification and GHS 7 classification

Physical hazards

Pre-2021 HSNO classification	Equivalent classification
Explosives (class 1)	
	unstable explosive
1.1 (A, B, C, D, E, F, G, J, L)	1.1 (A, B, C, D, E, F, G, J, L)
1.2 (B, C, D, E, F, G, H, J, K, L)	1.2 (B, C, D, E, F, G, H, J, K, L)
1.3 (C, F, G, H, J, K, L)	1.3 (C, F, G, H, J, K, L)
1.4 (B, C, D, E, F, G, S)	1.4 (B, C, D, E, F, G, S)
1.5D	1.5D
1.6N	1.6N
Flammable gases	
2.1.1A	flammable gas Category 1A <ul style="list-style-type: none"> 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 liquids Category 1
3.1B	flammable liquids Category 2
3.1C	flammable liquids Category 3
3.1D	flammable liquids 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 solids Category 1
4.1.1B	flammable solids Category 2
Self-reactive substances and mixtures	
4.1.2A	self-reactive substances and mixtures Type A
4.1.2B	self-reactive substances and mixtures Type B
4.1.2C	self-reactive substances and mixtures Type C
4.1.2D	self-reactive substances and mixtures Type D

4.1.2E	self-reactive substances and mixtures Type E
4.1.2F	self-reactive substances and mixtures Type F
4.1.2G	self-reactive substances and mixtures Type G
Pyrophoric liquids, pyrophoric solids, self-heating substances and mixtures	
4.2A	pyrophoric liquids Category 1, or pyrophoric solids Category 1
4.2B	self-heating substances and mixtures Category 1
4.2C	self-heating substances and mixtures Category 2
Substances and mixtures which, in contact with water, emit flammable gases	
4.3A	substances and mixtures which, in contact with water, emit flammable gases Category 1
4.3B	substances and mixtures which, in contact with water, emit flammable gases Category 2
4.3C	substances and mixtures which, in contact with water, emit flammable gases Category 3
Oxidising substances that are liquids or solids	
5.1.1A	oxidising liquids Category 1, or oxidising solids Category 1
5.1.1B	oxidising liquids Category 2, or oxidising solids Category 2
5.1.1C	oxidising liquids Category 3, or oxidising solids Category 3
Oxidising gases	
5.1.2A	oxidising gases 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

Health hazards

Pre-2021 HSNO classification	Equivalent classification to be implemented
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)	<i>Note: acute toxicity Category 5 has not been adopted</i>
Aspiration hazard	
6.1E (aspiration hazard)	aspiration hazard Category 1

	<i>Note: aspiration hazard Category 2 has not been adopted</i>
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	<i>Note: skin irritation Category 3 has not been adopted</i>
Serious eye damage/eye irritation	
8.3A	serious eye damage Category 1
6.4A	eye irritation Category 2 <i>Note: The subcategories 2A and 2B have not been adopted.</i>
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)	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

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