



Waste Classification and Assessment Technical Guidance WM3

Consultation overview

We are the Environment Agency. We protect and improve the environment and make it a better place for people and wildlife.

We operate at the place where environmental change has its greatest impact on people's lives. We reduce the risks to people and properties from flooding; make sure there is enough water for people and wildlife; protect and improve air, land and water quality and apply the environmental standards within which industry can operate.

Acting to reduce climate change and helping people and wildlife adapt to its consequences are at the heart of all that we do.

We cannot do this alone. We work closely with a wide range of partners including government, business, local authorities, other agencies, civil society groups and the communities we serve.

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Executive summary

The way waste is assessed and classified in the United Kingdom changes significantly in June 2015.

This is a result of several changes to the law.

The changes include:

- amendments to the List of Waste (or European Waste Catalogue)
- a major revision of hazardous properties
- the adoption of the new system of chemical classification.

As a result, current UK guidance on waste classification needs to be updated.

The Environment Agency is hosting the consultation on the update. We are asking for your comments on the changes we have made to our guidance.

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1 About this consultation

This document explains why we are consulting and what we are consulting you on. It is designed to help you understand and comment on Waste Classification and Assessment – Technical Guidance WM3.

1.1 Why are we consulting?

The laws that set the way waste is assessed and classified are due to change on the 1st June 2015.

Our current guidance on waste classification and assessment has to be revised to support this.

1.2 What are we consulting on?

We are consulting on the Waste Classification and Assessment (Technical Guidance WM3) guidance.

We are seeking your comments on the changes we have made to our existing guidance (Technical Guidance WM2) to produce WM3 in line with the revised legislation.

We have highlighted many of the changes to make them easier to find. The main areas of change include:

- Chapter 2 that provides the framework for assessment
- Appendix A that contains the changes to the list of waste
- Appendix B that contains information to help find the classification of a chemical
- Appendix C that contains the new criteria for hazardous properties.

We are not consulting on the parts of the existing guidance that remain unchanged or on the legislation that requires these changes.

1.3 We want your views

We think that this consultation will be of particular interest to anyone who has responsibility for waste. This includes businesses that produce waste, companies that collect, recycle, recover or dispose of waste, consultants, brokers, and trade associations.

We want to hear your thoughts, comments and opinions only on the changes we have made to the areas of the guidance outlined above. Section 2 provides more information on these changes. You will find the consultation questions in Section 3 of this document and information on how to respond in Section 4.

2 Technical Guidance WM3

2.1 What is changing and why?

The way waste is classified and assessed is changing significantly on 1st June 2015.

The assessment and classification of waste is based upon:

- the List of Waste decision (2000/532/EC)
- Annex III of the Waste Directive (2008/98/EC).

These in turn rely on chemical legislation for information on chemicals:

- Dangerous Substances Directive (67/548/EC)
- Dangerous Preparations Directive (1999/45/EC)

This chemical legislation is replaced by the Classification, Labelling and Packaging Regulation (CLP) (2008/1272/EC). This introduces a new system of chemical classification based on hazard classes, categories and statement codes (rather than risk phrases and categories of danger).

As a consequence Annex III of the Waste Directive has been revised to:

- amend hazardous properties to align with the CLP
- provide hazardous waste criteria based on hazard statement codes.

The List of Waste (or European Waste Catalogues) has also been revised to:

- align with the CLP and Annex III
- include criteria for persistent organic pollutants (POPs)
- make amendments arising from a review of the List itself.

We have to update our current guidance on waste classification and assessment to align with these changes. Our current guidance is Technical Guidance WM2.

<https://www.gov.uk/government/publications/waste-classification-technical-guidance>

We have updated this to include the legal changes and create a revised document called Waste Classification and Assessment- Technical Guidance WM3.

This consultation is only on the changes we have made to produce this revised guidance document.

2.2 Changes to the Guidance

This section presents the changes to the guidance by chapter.

In the document itself we have tried to highlight as many of the changes as possible to make them easier to find. We have not done this with Appendix C as it is entirely new, and to make it easier to print.

In Annex I and Annex II of this overview document we have provided some of the text from the revised waste legislation. This is because the regulations have not been published yet.

2.2.1 Chapter 1: Legal Background

There are no significant changes to chapter 1.

2.2.2 Chapter 2

Chapter 2 provides a framework that explains how to assess and classify your waste. This has been updated, for example we have:

- clarified that the framework applies to the assessment and classification of waste.
- clarified how the guidance applies to mining waste
- included a persistent organic pollutants step in the assessment
- updated references, tables and examples to hazard classes, categories and statement codes
- updated references to the Appendices and their content to reflect any revisions made to them.

2.2.3 Appendix A: Consolidated List of waste

Appendix A includes a copy of the list of waste, instructions for using it, and a number of examples of how it is applied.

We have made the following amendments to Appendix A:

- added and amended a number of List of Waste codes
- the definitions and foot notes have been relocated
- examples have been updated to align with changes to other chapters

Additions and amendments to codes are 'neutral' in that they change the code assigned to a waste, not whether it is hazardous or not.

These include:

- the addition of a specific code 01 03 10*, and amendment of 01 03 09, for red mud from alumina production
- the addition of a code for metallic mercury, 16 03 05*
- the addition of a specific code 19 03 08*, and amendment of 19 03 04*, for partly stabilised mercury
- the amendment of 06 08 02* to replaced silicones with chlorosilanes.
- the references to 'dangerous' in the list are updated to 'hazardous'.

Although all the examples have been updated we would highlight the changes made to:

- Example 3 on 'waste oils and oil contaminated waste'
- Example 15 on 'soil, stones and dredging spoil'.

2.2.4 Appendix B: Data sources

Appendix B provides guidance on how to determine if a chemical is a hazardous substance, and what its chemical properties are. This is used to assess and classify waste.

The CLP regulation includes Table 3.1 that sets out the legal classification of some chemicals. However this table

- Does not include all chemicals,
- Entries may be incomplete, and
- There are regular revisions but no consolidated version.

The European Chemicals Agency includes this information in the Classification and Labelling inventory (the Inventory).

The Inventory also includes the information submitted by manufacturers, suppliers and importers of chemicals that are not listed in Table 3.1.

The International Agency for Research on Cancer publishes a list of chemicals that are carcinogens.

We take the view that these two data sources (the Inventory and IARC) should provide the majority of producers with sufficient information to classify a waste.

The Inventory may contain multiple notifications for a single substance. These may differ for various reasons.

We've maintained our existing stance of allowing waste producers to either:

- Simply use the worst case hazard statement code listed for each chemical hazard class when assessing a hazardous property of a waste, or

- To undertake the necessary work to determine which hazard statement code is correct with respect to the form of the substance present in that batch of waste.

2.2.5: Appendix C: Hazardous Property Assessment

Appendix C provides guidance on how each hazardous property is assessed.

This section of the document has seen the most significant change.

These changes are significant enough to invalidate any existing assessment of hazardous properties made under the current criteria.

There are three main changes to Appendix C:

- all the hazardous properties related to chemicals are now based on the CLP hazard classes, categories and statement codes.
- thirteen of the fifteen hazardous properties are now based on the new, more detailed criteria added to Annex III of the Waste Directive
- there is a new chapter (C16) for Persistent Organic Pollutants (POP's).

Although similar to previous criteria they can produce a different answer where:

- waste criteria have been changed or introduced
- the classification of a chemical has changed where the criteria for a hazard statement code does not align with a risk phrase it replaces
- hazard classes fall under different hazardous properties than the categories of danger they replace.

We have set out some of the main changes in Table 1.

2.2.6: Appendix D: Waste Sampling

There are no significant changes to Appendix D.

Table1: Main changes to hazardous properties

Hazardous Property	Main Changes
HP 1 Explosive	<p>This hazardous property now includes some organic peroxides and self reactive substances, as well as explosives.</p> <p>Seven hazard statement codes replace two risk phrases.</p>
HP 2 Oxidising	<p>Three hazardous statement codes replace two risk phrases.</p> <p>Calculation method for organic peroxides removed</p>
HP 3 Flammable	<p>Flashpoints have increased from 55°C to 60°C (or 75°C for some oils and diesel)</p> <p>Fourteen hazard statement codes replace 5 risk phrases</p> <p>Organic peroxides, self heating, water reactive, self reactive, and pyrophoric substances are included</p>
HP 4 Irritant	<p>Hazard statement codes replace risk phrases</p> <p>Changes are minor.</p>
HP 5 Specific Target Organ Toxicity (STOT) / Aspiration Toxicity	<p>This is a new hazardous property with 6 hazard statements and their thresholds.</p> <p>It does include chemicals classified under a risk phrase (R65) that was part of H5 Harmful, The threshold for this has been reduced.</p>
HP 6 Acute Toxicity	<p>This hazardous property incorporates both H5 Harmful and H6 Toxic.</p> <p>Thresholds have changed significantly.</p> <p>Additivity has changed significantly.</p> <p>Chemicals previously classified as harmful and toxic may have a more or less stringent classification under the new criteria. This may affect waste classification.</p>
HP 7 Carcinogenic	<p>Hazard statement codes replace risk phrases</p> <p>Changes are minor.</p>
HP 8 Corrosive	<p>Hazard statement codes replace risk phrases</p> <p>Changes are minor.</p>
HP 9 Infectious	<p>Not affected by changes to chemical legislation.</p> <p>Changes are very minor and presentational.</p>
HP 10 Toxic for Reproduction	<p>Hazard statement codes replace risk phrases</p> <p>Thresholds reduced.</p>

Hazardous Property	Main Changes
HP 11 Mutagenic	Hazard statement codes replace risk phrases Changes are minor
HP 12 Production of Acute Toxic Gas	Hazard statement codes replace risk phrases Changes are minor.
HP 13 Sensitising	Hazard statement codes replace risk phrases Threshold increased
HP 14 Ecotoxic	No change. Existing criteria based on risk phrases retained. These are likely to be replaced in future with criteria based on hazard statement codes.
HP 15	Hazard statement codes replace risk phrases Changes are minor.
POPs	This is a new requirement. Criteria for some persistent organic pollutants have been added.

3 Consultation questions

We welcome your comments on the changes we have made to our existing guidance to produce Waste Classification and Assessment – Technical Guidance WM3.

This includes both your views on the questions listed and general comments.

The questions below are about the three chapters that have been changed the most.

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Questions 1 and 2: Hazardous Property Assessment

Please read the criteria presented in Appendix C of WM3 and answer the questions below:

- 1) Is the information on hazardous property assessment in Appendix C correct?**
- 2) Do you think we could improve the presentation and clarity of Appendix C?**

Questions 3 and 4: Waste Classification and Assessment

Please read chapter 2 of WM3 and answer the questions below.

- 3) Are the changes we have made to the waste classification and assessment framework in Chapter 2 correct?**
- 4) Do you think we could improve the presentation and clarity of Chapter 2?**

Question 5: Data sources (Appendix B)

Is the guidance on how to determine the classification of a chemical correct?

We want to make sure that people can reliably find:

- the up to date legal classification of a chemical
- information on those that have no legal classification.

The Classification and Labelling Inventory appears to be where both can be found.

We would welcome your views on this.

Question 6: Impacts of the Changes

Do the new hazardous waste criteria have a significant impact on any individual waste or waste stream?

We want you to tell us about how the changes will affect you.

The many changes to waste classification and assessment are not expected to have significant overall impact on the types and quantities of hazardous waste.

However, we recognise that an individual waste or business may be affected positively or negatively.

We would invite customers highlight any impacts of the new criteria on their specific business or waste(s). This will allow us to consider how to manage these impacts in advance of the changes being implemented.

To support this we would ask that (where relevant) you provide both:

- the current hazardous waste assessment of the waste (using Technical Guidance WM2)
- an explanation of how the changes affect this.

Without this information, it may be difficult for us to consider your response.

4 Responding to this consultation

4.1 Important dates

This consultation will start on the **12th November 2014** and will run for a period of 12 weeks until the **3rd February 2015**.

4.2 How to respond

You can view the consultation documents and questions online at:

<https://consult.environment-agency.gov.uk/portal/>.

Here you can submit your response using our online tool which will enable you to manage your comments more effectively. It will also help us to gather and summarise responses quickly and accurately as well as reduce the costs of the consultation.

If you would prefer to submit your response by email send it to bob.mcintyre@environment-agency.gov.uk.

If you would like to send your response by post, please send your completed response form by 3rd February 2015 to:

**Bob McIntyre
Environment Agency
Manley House
Kestrel Way
Sowton Industrial Estate
Exeter
Devon
EX9 6QL**

If you experience problems accessing the consultation on line please contact us.

4.3 What will the responses be used for

The Environment Agency is hosting this consultation on behalf of the Joint Agencies.

Staff from the Environment Agency, Scottish Environment Protection Agency, Northern Ireland Environment Agency and Natural Resources Wales will see responses in full.

We will use the responses from this consultation to ensure that the amendments we have made to the existing guidance are consistent with the forthcoming legal changes, to ensure we have explained these changes clearly, and to identify any impacts on business that we were not aware of. .

We will provide a full summary of the responses on our website by 1st August 2015.

4.4 How we will use your information

Throughout the consultation we will aim to make all comments (excluding personal information) publicly available on the Environment Agency's online consultation portal. This includes comments received online, by email, post and by fax, unless you have specifically requested that we keep your response confidential. We will not publish names of individuals who respond, but we will publish the name of the organisation for those responses made on behalf of organisations.

If you respond online or provide us with an email address, we will acknowledge your response. After the consultation has closed a summary of the responses will be published on our website. We will contact you to let you know when this is available. We will also notify you of any forthcoming consultations unless you tell us otherwise.

In accordance with the Freedom of Information Act 2000, we may be required to publish your response to this consultation, but will not include any personal information. If you have requested your response to be kept confidential, we may still be required to provide a summary of it.

4.5 Consultation principles

We are running this consultation in accordance with the criteria set out in the government's [Consultation Principles](#).

If you have any queries or complaints about the way this consultation has been carried out, please contact:

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List of abbreviations & Glossary

CLP	European Regulation 2008/1272/EC on the Classification, Labelling and Packaging of chemicals. It replaces the Dangerous Substances and Preparations Directives and implements the Globally Harmonised System of Chemical Classification developed by the United Nations.
European Waste Catalogue	Alternative name for the List of Waste
Hazard Category	A part of the classification of a chemical. The subdivision within a hazard class, detailing the severity of the hazard, identified by the CLP. For example – Flammable Liquid category 1, 2 or 3.
Hazard Class	A part of the classification of a chemical. The nature of the physical, health or environmental hazard identified by the CLP – For example Flammable Liquid.
Hazard Statement Code	A part of the classification of a chemical. The code assigned to the hazard class and category by the CLP that describes the property and its severity, For example H224, H225 or H226.
Hazardous Property	A property of a waste, defined in Annex III of the Waste Directive (2008/98/EC)
IARC	The International Agency for Research on Cancer. It produces and maintains a list of known carcinogens.
Inventory (The)	The Classification and Labelling Inventory maintained by the European Chemicals Agency to support the CLP. It contains both <ul style="list-style-type: none">(i) The 'harmonised' classification of a chemical from Table 3.1 of the CLP, and(ii) Notifications from manufacturers, suppliers and importers containing information on the properties of chemicals
List of waste	The classification system for waste from the List of Waste Decision (2000/532/EC)
POP	Persistent Organic Pollutant. A group of chemicals that persist in the environment, can build up in human tissues or food, and are toxic.
Risk phrase	A part of the old classification system for chemicals. The CLP replaces these with hazard statement codes
STOT	Specific Target Organ Toxicity. A Hazard Class assigned by the CLP which is included with Annex III of the Waste Directive as part of hazardous property HP 5.
WM2	The current technical guidance on waste classification and assessment that has been revised to produce WM3.
WM3	The revised technical guidance on waste classification and assessment that we are consulting upon

Annex I: List of Waste

The text below is part of the legal text we expect to appear in the European Journal.

This will replace the existing text in the List of Waste, and explains how hazardous waste is defined.

List of waste referred to in Article 7 of Directive 2008/98/EC

Definitions

For the purposes of this Annex, the following definitions shall apply:

1. 'hazardous substance' means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;
2. 'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;
3. 'polychlorinated biphenyls and polychlorinated terphenyls' ('PCBs') means PCBs as defined in Article 2(a) of Council Directive 96/59/EC ;
4. 'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances;
5. 'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;
6. 'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;
7. 'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Assessment and classification

1. Assessment of hazardous properties of waste

When assessing the hazardous properties of wastes, the criteria laid down in Annex III to Directive 2008/98/EC shall apply. For the hazardous properties HP 4, HP 6 and HP 8, cut-off values for individual substances as indicated in Annex III to Directive 2008/98/EC shall apply to the assessment. Where a substance is present in the waste below its cut-off value, it shall not be included in any calculation of a threshold. Where a hazardous property of a waste has been assessed by a test and by using the concentrations of hazardous substances as indicated in Annex III to Directive 2008/98/EC, the results of the test shall prevail.

2. Classification of waste as hazardous

Any waste marked with an asterisk (*) in the list of wastes shall be considered as hazardous waste pursuant to Directive 2008/98/EC, unless Article 20 of that Directive applies.

For those wastes for which hazardous and non-hazardous waste codes could be assigned, the following shall apply:

- An entry in the harmonised list of wastes marked as hazardous, having a specific or general reference to 'hazardous substances', is only appropriate to a waste when that waste contains relevant hazardous substances that cause the waste to display one or more of the hazardous properties HP 1 to HP 8 and/or HP 10 to HP 15 as listed in Annex III to Directive 2008/98/EC. The assessment of the hazardous property HP 9 'infectious' shall be made according to relevant legislation or reference documents in the Member States.
- A hazardous property can be assessed by using the concentration of substances in the waste as specified in Annex III to Directive 2008/98/EC or, unless otherwise specified in Regulation (EC) No 1272/2008, by performing a test in accordance with Council Regulation (EC) No 440/2008 or other internationally recognised test methods and guidelines, taking into account Article 7 of Regulation (EC) No 1272/2008 as regards animal and human testing.
- Wastes containing polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF), DDT (1,1,1-trichloro-2,2-bis (4-chlorophenyl)ethane), chlordane, hexachlorocyclohexanes (including lindane), dieldrin, endrin, heptachlor, hexachlorobenzene, chlordane, aldrin, pentachlorobenzene, mirex, toxaphene hexabromobiphenyl and/or PCB exceeding the concentration limits indicated in Annex IV to Regulation (EC) No 850/2004 shall be classified as hazardous.

- The concentration limits defined in Annex III to Directive 2008/98/EC do not apply to pure metal alloys in their massive form (not contaminated with hazardous substances). Those waste alloys that are considered as hazardous waste are specifically enumerated in this list and marked with an asterisk (*).
- Where applicable, the following notes included in Annex VI to Regulation (EC) No 1272/2008 may be taken into account when establishing the hazardous properties of wastes:
 - 1.1.3.1. Notes relating to the identification, classification and labelling of substances: Notes B, D, F, J, L, M, P, Q, R, and U.
 - 1.1.3.2. Notes relating to the classification and labelling of mixtures: Notes 1, 2, 3 and 5.
- After assessing the hazardous properties for a waste according to this method, an appropriate hazardous or non-hazardous entry from the list of wastes shall be assigned.

All other entries in the harmonised list of wastes are considered non-hazardous.

Annex II: Hazardous Waste Criteria

The text below is part of the legal text we expect to appear in the European Journal. This will replace Annex III of the Waste Directive, and provides the core criteria for each hazardous property.

HP 1 ‘Explosive’: ‘waste which is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings. Pyrotechnic waste, explosive organic peroxide waste and explosive self-reactive waste is included.’

When a waste contains one or more substances classified by one of the hazard class and category codes and hazard statement codes shown in Table 1, the waste shall be assessed for HP 1, where appropriate and proportionate, according to test methods. If the presence of a substance, a mixture or an article indicates that the waste is explosive, it shall be classified as hazardous by HP 1.

Table 1: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents for the classification of wastes as hazardous by HP 1:

Hazard Class and Category Code(s)	Hazard statement Code(s)
Unst. Expl.	H 200
Expl. 1.1	H 201
Expl. 1.2	H 202
Expl. 1.3	H 203
Expl. 1.4	H 204
Self-react. A	H 240
Org. Perox. A	
Self-react. B	H 241
Org. Perox. B	

HP 2 ‘Oxidising’: ‘waste which may, generally by providing oxygen, cause or contribute to the combustion of other materials.’

When a waste contains one or more substances classified by one of the hazard class and category codes and hazard statement codes shown in Table 2, the waste shall be assessed for HP 2, where appropriate and proportionate, according to test methods. If the presence of a substance indicates that the waste is oxidising, it shall be classified as hazardous by HP 2.

Table 2: Hazard Class and Category Code(s) and Hazard statement Code(s) for the classification of wastes as hazardous by HP 2:

Hazard Class and Category Code(s)	Hazard statement Code(s)
Ox. Gas 1	H 270
Ox. Liq. 1	H 271
Ox. Sol. 1	
Ox. Liq. 2, Ox. Liq. 3	H 272
Ox. Sol. 2, Ox. Sol. 3	

HP 3 'Flammable':

- flammable liquid waste: liquid waste having a flash point below 60°C or waste gas oil, diesel and light heating oils having a flash point > 55°C and ≤ 75°C;
- flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
- flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
- flammable gaseous waste: gaseous waste which is flammable in air at 20°C and a standard pressure of 101.3 kPa;
- water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
- other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.

When a waste contains one or more substances classified by one of the following hazard class and category codes and hazard statement codes shown in Table 3, the waste shall be assessed, where appropriate and proportionate, according to test methods. If the presence of a substance indicates that the waste is flammable, it shall be classified as hazardous by HP 3.

Table 3: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents for the classification of wastes as hazardous by HP 3:

Hazard Class and Category Code(s)	Hazard statement Code(s)
Flam. Gas 1	H220
Flam. Gas 2	H221
Aerosol 1	H222
Aerosol 2	H223
Flam. Liq. 1	H224
Flam. Liq.2	H225
Flam. Liq. 3	H226
Flam. Sol. 1 Flam. Sol. 2	H228
Self-react. CD Self-react. EF Org. Perox. CD Org. Perox. EF	H242
Pyr. Liq. 1 Pyr. Sol. 1	H250
Self-heat. 1	H251
Self-heat. 2	H252
Water-react. 1	H260
Water-react. 2 Water-react. 3	H261

HP 4 ‘Irritant - skin irritation and eye damage’: waste which on application can cause skin irritation or damage to the eye.

When a waste contains one or more substances in concentrations above the cut-off value, that are classified by one of the following hazard class and category codes and hazard statement codes and one or more of the following concentration limits is exceeded or equalled, the waste shall be classified as hazardous by HP 4.

The cut-off value for consideration in an assessment for Skin corr. 1A (H314), Skin irrit. 2 (H315), Eye dam. 1 (H318) and Eye irrit. 2 (H319) is 1%.

If the sum of the concentrations of all substances classified as Skin corr. 1A (H314) exceeds or equals 1%, the waste shall be classified as hazardous according to HP 4.

If the sum of the concentrations of all substances classified as H318 exceeds or equals 10%, the waste shall be classified as hazardous according to HP 4.

If the sum of the concentrations of all substances classified H315 and H319 exceeds or equals 20%, the waste shall be classified as hazardous according to HP 4.

Note that wastes containing substances classified as H314 (Skin corr.1A, 1B or 1C) in amounts greater than or equal to 5% will be classified as hazardous by HP 8. HP 4 will not apply if the waste is classified as HP 8.

HP 5 ‘Specific Target Organ Toxicity (STOT)/Aspiration Toxicity’: waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.

When a waste contains one or more substances classified by one or more of the following hazard class and category codes and hazard statement codes shown in Table 4, and one or more of the concentration limits in Table 4 is exceeded or equalled, the waste shall be classified as hazardous according to HP 5. When substances classified as STOT are present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 5.

When a waste contains one or more substances classified as Asp. Tox. 1 and the sum of those substances exceeds or equals the concentration limit, the waste shall be classified as hazardous by HP 5 only where the overall kinematic viscosity (at 40°C) does not exceed 20.5 mm²/s.¹

Table 4: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 5.

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
STOT SE 1	H370	1%
STOT SE 2	H371	10%
STOT SE 3	H335	20%
STOT RE 1	H372	1%
STOT RE 2	H373	10%
Asp. Tox. 1	H304	10%

¹ The kinematic viscosity shall only be determined for fluids.

HP 6 ‘Acute Toxicity’: waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

If the sum of the concentrations of all substances contained in a waste, classified with an acute toxic hazard class and category code and hazard statement code given in Table 5, exceeds or equals the threshold given in that table, the waste shall be classified as hazardous by HP 6. When more than one substance classified as acute toxic is present in a waste, the sum of the concentrations is required only for substances within the same hazard category.

The following cut-off values shall apply for consideration in an assessment:

For Acute Tox. 1, 2 or 3 (H300, H310, H330, H301, H311, H331): 0.1%;

For Acute Tox. 4 (H302, H312, H332): 1%.

Table 5: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 6

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
Acute Tox.1 (Oral)	H300	0.1%
Acute Tox. 2 (Oral)	H300	0.25%
Acute Tox. 3 (Oral)	H301	5%
Acute Tox 4 (Oral)	H302	25%
Acute Tox.1 (Dermal)	H310	0.25%
Acute Tox.2 (Dermal)	H310	2.5%
Acute Tox. 3 (Dermal)	H311	15%
Acute Tox 4 (Dermal)	H312	55%
Acute Tox 1 (Inhal.)	H330	0.1%
Acute Tox.2 (Inhal.)	H330	0.5%
Acute Tox. 3 (Inhal.)	H331	3.5%
Acute Tox. 4 (Inhal.)	H332	22.5%

HP 7 ‘Carcinogenic’: waste which induces cancer or increases its incidence.

When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 6, the waste shall be classified as hazardous by HP 7.

When more than one substance classified as carcinogenic is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 7.

Table 6: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 7

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
Carc. 1A	H350	0.1%
Carc. 1B		
Carc. 2	H351	1.0%

HP 8 ‘Corrosive’: waste which on application can cause skin corrosion.

When a waste contains one or more substances classified as Skin corr. 1A, 1B or 1C (H314) and the sum of their concentrations exceeds or equals 5%, the waste shall be classified as hazardous by HP 8.

The cut-off value for consideration in an assessment for Skin corr. 1A, 1B, 1C (H314) is 1.0%.

HP 9 ‘Infectious’: waste containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.

The attribution of HP 9 shall be assessed by the rules laid down in reference documents or legislation in the Member States.

HP 10 ‘Toxic for reproduction’: waste which has adverse effects on sexual function and fertility in adult males and females, as well as developmental toxicity in the offspring.

When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 7, the waste shall be classified hazardous according to HP 10. When more than one substance classified as toxic for reproduction is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 10.

Table 7: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 10

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
Repr. 1A	H360	0.3%
Repr. 1B		
Repr. 2	H361	3.0%

HP 11 ‘Mutagenic’: waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell.

When a waste contains a substance classified by one of the following hazard class and category codes and hazard statement codes and exceeds or equals one of the following concentration limits shown in Table 8, the waste shall be classified as hazardous according to HP 11. When more than one substance classified as mutagenic is present in a waste, an individual substance has to be present at or above the concentration limit for the waste to be classified as hazardous by HP 11.

Table 8: Hazard Class and Category Code(s) and Hazard statement Code(s) for waste constituents and the corresponding concentration limits for the classification of wastes as hazardous by HP 11

Hazard Class and Category Code(s)	Hazard statement Code(s)	Concentration limit
Muta. 1A,	H340	0.1%
Muta. 1B		
Muta. 2	H341	1.0%

HP 12 ‘Release of an acute toxic gas’: waste which releases acute toxic gases (Acute Tox. 1,2 or 3) in contact with water or an acid.

When a waste contains a substance assigned to one of the following supplemental hazards EUH029, EUH031 and EUH032, it shall be classified as hazardous by HP 12 according to test methods or guidelines.

HP 13 ‘Sensitising’: waste which contains one or more substances known to cause sensitising effects to the skin or the respiratory organs.

When a waste contains a substance classified as sensitising and is assigned to one of the hazard statement codes H317 or H334 and one individual substance equals or exceeds the concentration limit of 10%, the waste shall be classified as hazardous by HP 13.

HP 14 ‘Ecotoxic’: waste which presents or may present immediate or delayed risks for one or more sectors of the environment.

Note - Attribution of the hazardous property HP 14 is made on the basis of the criteria laid down in Annex VI to Council Directive 67/548/EEC.

HP 15 : waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste.

When a waste contains one or more substances assigned to one of the hazard statements or supplemental hazards shown in Table 9, the waste shall be classified as hazardous by HP 15, unless the waste is in such a form that it will not under any circumstance exhibit explosive or potentially explosive properties.

Table 9: Hazard statements and supplemental hazards for waste constituents for the classification of wastes as hazardous by HP 15.

Hazard Statement(s) / Supplemental Hazard(s)	
May mass explode in fire	H205
Explosive when dry	EUH001
May form explosive peroxides	EUH019
Risk of explosion if heated under confinement	EUH044

In addition, Member States may characterise a waste as hazardous by HP 15 based on other applicable criteria, such as an assessment of the leachate.

Test methods

The methods to be used are described in Council Regulation (EC) No 440/2008 and in other relevant CEN notes or other internationally recognised test methods and guidelines.

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