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Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Report of the Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals on its sixth session

held in Geneva on 14 December 2012

Addendum

Annex III

Amendments to the fourth revised edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (ST/SG/AC.10/30/Rev.4)

Chapters 2.2 to 2.7, 2.9 to 2.14, 2.16, 3.1 to 3.10 and 4.1 and 4.2

The amendment concerning the exclamation mark punctuation in the decision logics in the French version does not apply to the English version.

Chapter 1.3

1.3.3.2.1 Insert a reference to footnote "1" at the end of the first sentence as follows: "…..in the GHS[1]." and add the following related footnote:

"[1] *For the purposes of the GHS, the terms "cut-off value" and "concentration limit" are equivalent and are meant to be used interchangeably. Competent authorities may choose whether to use either term to define thresholds that trigger classification*."

Chapter 1.4

1.4.10.4.3 Insert a new sub-section 1.4.10.4.3 to read as follows:

"1.4.10.4.3 *Codification*

Pictograms prescribed by the GHS for sectors other than transport, and a code uniquely identifying each one, are listed in Section 4 of Annex 3. The pictogram code is intended to be used for reference purposes only. It is not part of the pictogram, and should not appear on labels or in section 2 of the safety data sheet.".

1.4.10.5.3.3 (d) The amendment concerning the text of hazard statements H314 and H318 in the French version does not apply to the English version.

Chapter 1.5

1.5.3.3.4 Insert a new paragraph to read as follows:

"1.5.3.3.4 Additional safety and environmental information is required to address the needs of seafarers and other transport workers in the bulk transport of dangerous goods in sea-going or inland navigation bulk carriers or tank-vessels subject to IMO or national regulations. Paragraph A4.3.14.7 of Annex 4 recommends the inclusion of basic classification information when such cargoes are transported as liquids in bulk according to Annex II of MARPOL and the IBC Code. In addition, ships carrying oil or oil fuel, as defined in Annex I of MARPOL, in bulk or bunkering oil fuel are required before loading to be provided with a "material safety data sheet" in accordance with the IMO's Maritime Safety Committee (MSC) resolution "Recommendations for Material Safety Data Sheets (MSDS) for MARPOL Annex I Oil Cargo and Oil Fuel" (MSC.286(86)). Therefore, in order to have one harmonized SDS for maritime and non-maritime use, the additional provisions of Resolution MSC.286(86) may be included in the GHS SDS, where appropriate, for marine transport of MARPOL Annex I cargoes and marine fuel oils.".

Chapter 2.1

2.1.3 Add a new note 2 under Table 2.1.2 to read as follows:

"***NOTE 2:*** *Substances and mixtures, as supplied, with a positive result in Test Series 2 in Part I, Section 12, of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, which are exempted from classification as explosives (based on a negative result in Test Series 6 in Part I, Section 16 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria,) still have explosive properties. The user should be informed of these intrinsic explosive properties because they have to be considered for handling – especially if the substance or mixture is removed from its packaging or is repackaged – and for storage. For this reason, the explosive properties of the substance or mixture should be communicated in Section 2 (Hazard identification) and Section 9 (Physical and chemical properties) of the Safety Data Sheet in accordance with Table 1.5.2, and other sections of the Safety Data Sheet, as appropriate."*.

Renumber the current note under the table as NOTE 1.

Chapter 2.3

2.3.2.1 Amend the text of the paragraph to read as follows:

"Aerosols are classified in one of the three categories of this hazard class, depending on their flammable properties and their heat of combustion. They should be considered for classification in Category 1 or 2 if they contain more than 1% components (by mass) which are classified as flammable according to GHS criteria, i.e.:

- Flammable gases (see Chapter 2.2);
- Flammable liquids (see Chapter 2.6);
- Flammable solids (see Chapter 2.7);

or if their heat of combustion is at least 20 kJ/g."

Current Notes 1 and 2 remain unchanged.

2.3.3 In the heading of Table 2.3.1 delete "flammable and non-flammable".

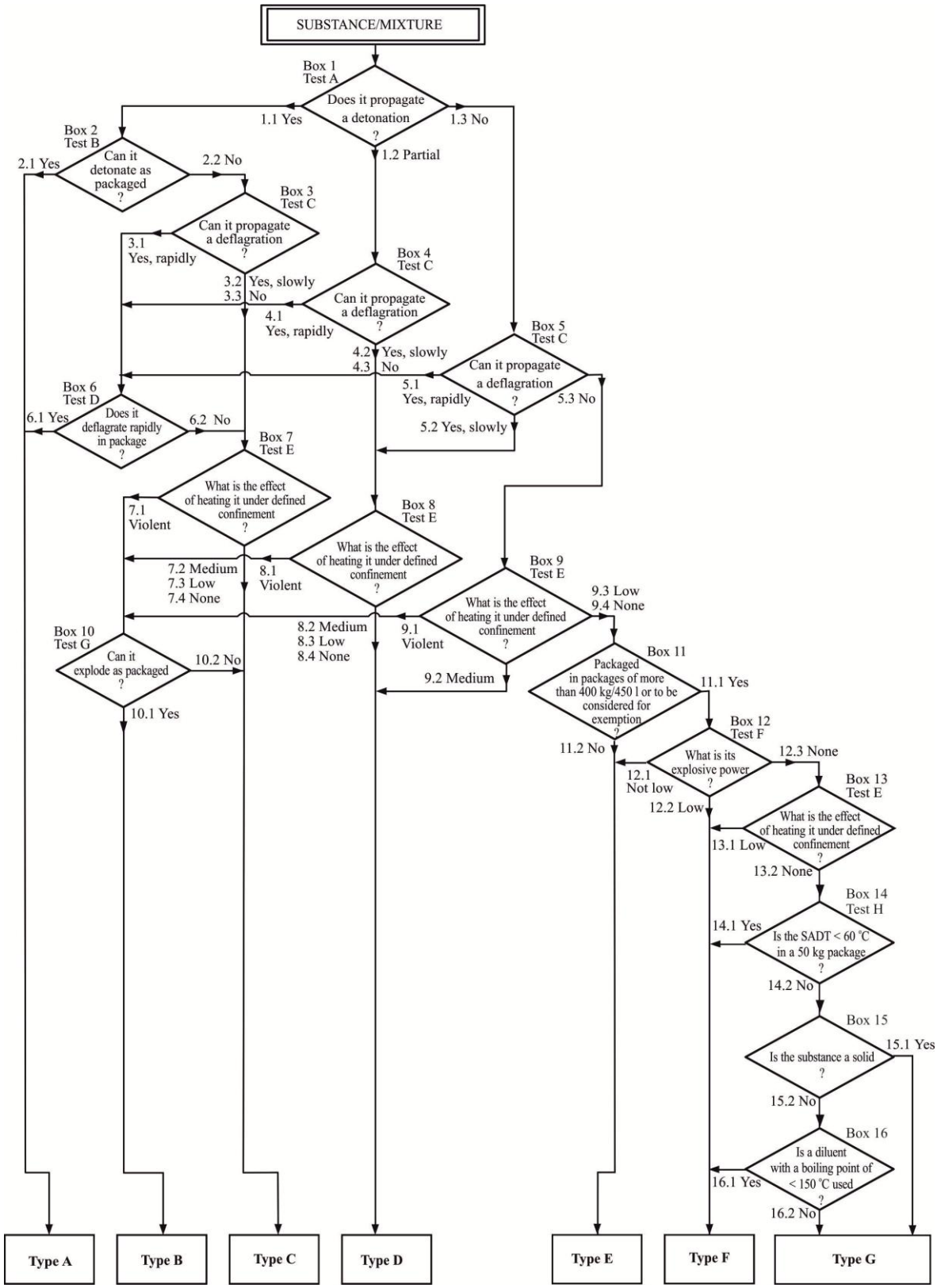
2.3.4.1 At the beginning of the paragraph preceding the decision logics delete "as a flammable aerosol".

For decision logic 2.3 (a):

- In the heading delete "flammable";
- In the text boxes, insert "(by mass)" (twice) after "flammable components".

Chapter 2.8

2.8.4.1 Replace decision logic 2.8 with the decision logic hereafter:


SUBSTANCE/MIXTURE
Box 1
Test A
Does it propagate a detonation ?
1.1 Yes
1.2 Partial
1.3 No
Box 2
Test B
Can it detonate as packaged ?
2.1 Yes
2.2 No
Box 3
Test C
Can it propagate a deflagration ?
3.1 Yes, rapidly
3.2 Yes, slowly
3.3 No
Box 4
Test C
Can it propagate a deflagration ?
4.1 Yes, rapidly
4.2 Yes, slowly
4.3 No
Box 5
Test C
Can it propagate a deflagration ?
5.1 Yes, rapidly
5.2 Yes, slowly
5.3 No
Box 6
Test D
Does it deflagrate rapidly in package ?
6.1 Yes
6.2 No
Box 7
Test E
What is the effect of heating it under defined confinement ?
7.1 Violent
7.2 Medium
7.3 Low
7.4 None
Box 8
Test E
What is the effect of heating it under defined confinement ?
8.1 Violent
8.2 Medium
8.3 Low
8.4 None
Box 9
Test E
What is the effect of heating it under defined confinement ?
9.1 Violent
9.2 Medium
9.3 Low
9.4 None
Box 10
Test G
Can it explode as packaged ?
10.1 Yes
10.2 No
Box 11
Packaged in packages of more than 400 kg/450 l or to be considered for exemption ?
11.1 Yes
11.2 No
Box 12
Test F
What is its explosive power ?
12.1 Not low
12.2 Low
12.3 None
Box 13
Test E
What is the effect of heating it under defined confinement ?
13.1 Low
13.2 None
Box 14
Test H
Is the SADT < 60 °C in a 50 kg package ?
14.1 Yes
14.2 No
Box 15
Is the substance a solid ?
15.1 Yes
15.2 No
Box 16
Is a diluent with a boiling point of < 150 °C used ?
16.1 Yes
16.2 No
Type A
Type B
Type C
Type D
Type E
Type F
Type G

Chapter 2.14

2.14.2 In the paragraph preceding the table insert "or test O.3 in Part III, sub-section 34.4.3" after "sub-section 34.4.1".

Amend table 2.14.1 to read as follows:

"Table 2.14.1: Criteria for oxidizing solids

Category	Criteria using test O.1	Criteria using test O.3
1	Any substance or mixture which, in the 4:1 or 1:1 sample-to-cellulose ratio (by mass) tested, exhibits a mean burning time less than the mean burning time of a 3:2 mixture (by mass) of potassium bromate and cellulose.	Any substance or mixture which, in the 4:1 or 1:1 sample-to-cellulose ratio (by mass) tested, exhibits a mean burning rate greater than the mean burning rate of a 3:1 mixture (by mass) of calcium peroxide and cellulose.
2	Any substance or mixture which, in the 4:1 or 1:1 sample-to-cellulose ratio (by mass) tested, exhibits a mean burning time equal to or less than the mean burning time of a 2:3 mixture (by mass) of potassium bromate and cellulose and the criteria for Category 1 are not met.	Any substance or mixture which, in the 4:1 or 1:1 sample-to-cellulose ratio (by mass) tested, exhibits a mean burning rate equal to or greater than the mean burning rate of a 1:1 mixture (by mass) of calcium peroxide and cellulose and the criteria for Category 1 are not met.
3	Any substance or mixture which, in the 4:1 or 1:1 sample-to-cellulose ratio (by mass) tested, exhibits a mean burning time equal to or less than the mean burning time of a 3:7 mixture (by mass) of potassium bromate and cellulose and the criteria for Categories 1 and 2 are not met.	Any substance or mixture which, in the 4:1 or 1:1 sample-to-cellulose ratio (by mass) tested, exhibits a mean burning rate equal to or greater than the mean burning rate of a 1:2 mixture (by mass) of calcium peroxide and cellulose and the criteria for Categories 1 and 2 are not met.

"

In Note 1 under table 2.14.1, replace "(BC Code[4], Annex 3, Test 5)" with "(IMSBC[1] Code, Appendix 2, Section 5)".

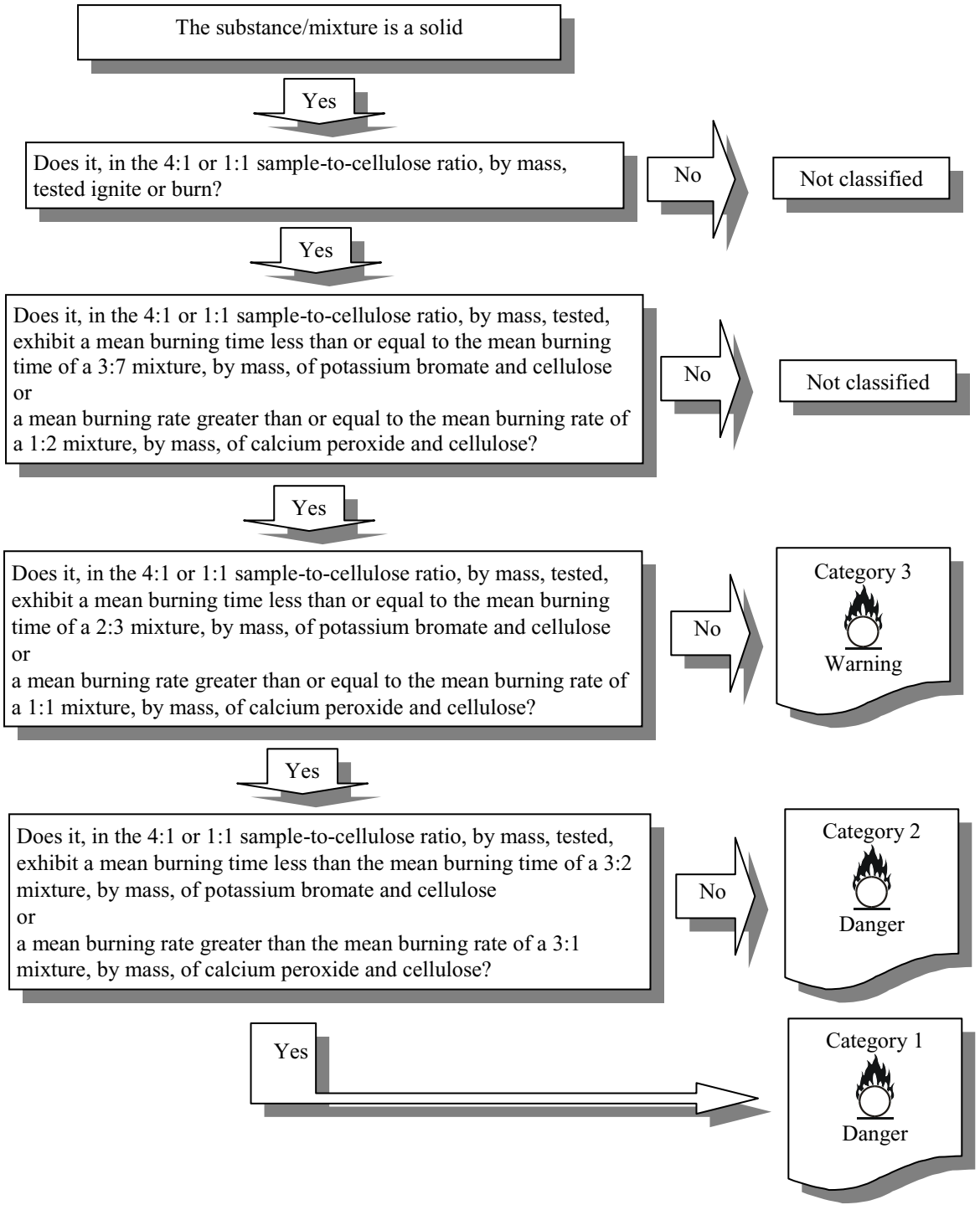
Amend the text of the related footnote to read: "[1] International Maritime Solid Bulk Cargoes Code, IMO.".

2.14.4.4.1 In the introductory paragraph insert "or test O.3 in Part III, sub-section 34.4.3" after "sub-section 34.4.1".

Replace decision logic 2.14 with the following:

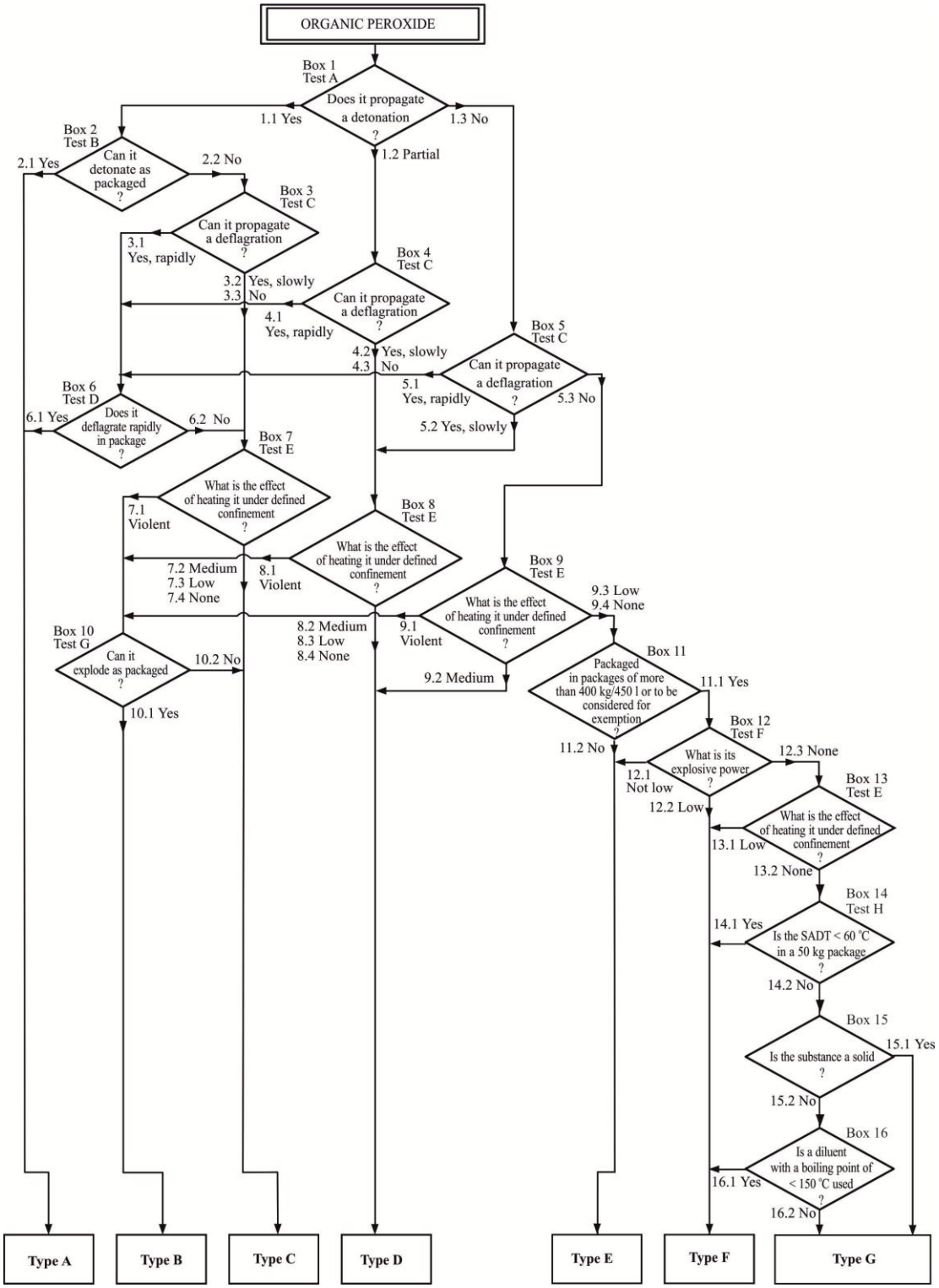
"Decision logic 2.14 for oxidizing solids

"



Chapter 2.15

2.15.4.1 Replace decision logic 2.15 with the decision logic hereafter:



Chapter 3.1

3.1.2.1 In the first sentence, replace “five toxicity categories” with “five hazard categories”.

3.1.2.4 Replace “highest toxicity category” with “highest hazard category”.

3.1.2.6.4 In the first sentence, replace “high toxicity categories” with “highest hazard categories”.

3.1.3.5.5 In the heading and in the text, replace (3 times) “toxicity category” with “hazard category”.

3.1.3.6.1 (a) Replace “acute toxicity categories” with “acute toxicity hazard categories”.

3.1.4.1 In the last sentence replace “acute toxicity Categories 1 to 5” with “acute toxicity hazard categories 1 to 5”.

Chapter 3.2

3.2.1 Amend the heading to read “Definitions and general considerations”.

Insert paragraph number “3.2.1.1” before the definition of “Skin corrosion”.

3.2.1.2 Insert a new paragraph to read as follows:

“3.2.1.2 In a tiered approach, emphasis should be placed upon existing human data, followed by existing animal data, followed by *in vitro* data and then other sources of information. Classification results directly when the data satisfy the criteria. In some cases, classification of a substance or a mixture is made on the basis of the weight of evidence within a tier. In a total weight of evidence approach all available information bearing on the determination of skin corrosion/irritation is considered together, including the results of appropriate validated *in vitro* tests, relevant animal data, and human data such as epidemiological and clinical studies and well-documented case reports and observations (see Chapter 1.3, para. 1.3.2.4.9).”

3.2.2 Replace paragraphs 3.2.2.1, 3.2.2.2, 3.2.2.3 and figure 3.2.1 with the following:

“**3.2.2 Classification criteria for substances**

Substances can be allocated to one of the following three categories within this hazard class:

(a) Category 1 (skin corrosion)

This category may be further divided into up to three sub-categories (1A, 1B and 1C) which can be used by those authorities requiring more than one designation for corrosivity (see Table 3.2.1);

(b) Category 2 (skin irritation) (see Table 3.2.2)

(c) Category 3 (mild skin irritation)

This category is available for those authorities (e.g. pesticides) that want to have more than one skin irritation category (see Table 3.2.2).”

3.2.2.1 Insert the following new subheading:

“**3.2.2.1** ***Classification based on standard animal test data***”.

3.2.2.1.1 Former 3.2.2.4 becomes new 3.2.2.1.1, as amended to read as follows:

"3.2.2.1.1 *Skin corrosion*"

3.2.2.1.1.1 Former 3.2.2.4.1 becomes new 3.2.2.1.1.1 as amended to read as follows:

"3.2.2.1.1.1 A substance is corrosive to skin when it produces destruction of skin tissue, namely, visible necrosis through the epidermis and into the dermis, in at least one tested animal after exposure for up to 4 hours.".

3.2.2.1.1.2 and 3.2.2.1.1.3 Add the following new paragraphs:

"3.2.2.1.1.2 Corrosive substances should be classified in Category 1 where sub-categorization is not required by a competent authority or where data are not sufficient for sub-categorization.

3.2.2.1.1.3 When data are sufficient and where required by a competent authority substances may be classified in one of the three sub-categories 1A, 1B or 1C in accordance with the criteria in table 3.2.1.".

3.2.2.1.1.4 Former 3.2.2.4.2 becomes new 3.2.2.1.1.4 with the following amendments:

- Replace "one designation for corrosivity" with "one designation for skin corrosion" and "corrosive category" with "corrosion category";
- Insert "corrosive" before "responses" (3 times);
- Replace "between 3 minutes and 1 hour" with "greater than 3 minutes and up to 1 hour" and "between 1 hour and 4 hours" with "greater than 1 hour and up to 4 hours".

Table 3.2.1 Replace with the following:

"**Table 3.2.1: Skin corrosion category and sub-categories** [a]

	Criteria
Category 1	Destruction of skin tissue, namely, visible necrosis through the epidermis and into the dermis, in at least one tested animal after exposure ≤ 4 h
Sub-category 1A	Corrosive responses in at least one animal following exposure ≤ 3 min during an observation period ≤ 1 h
Sub-category 1B	Corrosive responses in at least one animal following exposure > 3 min and ≤ 1 h and observations ≤ 14 days
Sub-category 1C	Corrosive responses in at least one animal after exposures > 1 h and ≤ 4 h and observations ≤ 14 days

[a] *The use of human data is addressed in 3.2.2.2 and in chapters 1.1 (para. 1.1.2.5(c)), and 1.3 (para. 1.3.2.4.7).*"

3.2.2.1.2 Former 3.2.2.5 becomes new 3.2.2.1.2 as amended to read as follows:

"3.2.2.1.2 *Skin irritation*".

3.2.2.1.2.1 Insert a new paragraph to read as follows:

"3.2.2.1.2.1 A substance is irritant to skin when it produces reversible damage to the skin following its application for up to 4 hours."

3.2.2.1.2.2 Former 3.2.2.5.1 becomes new 3.2.2.1.2.2 with the following amendments:

- Amend the introductory sentence to read as follows: "An irritation category (Category 2) is provided that:"

- Delete (a). Current sub-paragraphs (b) and (c) become (a) and (b) respectively.
- In new (b) delete "quite" and in the last sentence, replace "irritant" with "irritation" (twice) and insert "(Category 3)" before "is available".

3.2.2.1.2.3 Former 3.2.2.5.2 becomes new 3.2.2.1.2.3.

3.2.2.1.2.4 Former 3.2.2.5.3 becomes new 3.2.2.1.2.4 with the following amendment: In the first sentence, delete "quite".

3.2.2.1.2.5 Former 3.2.2.5.4 becomes new 3.2.2.1.2.5 as amended to read as follows:

"3.2.2.1.2.5 An irritation category (Category 2) is presented in Table 3.2.2 using the results of animal testing. Authorities (e.g. for pesticides) also have available a less severe mild irritation category (Category 3). Several criteria distinguish the two categories (Table 3.2.2). They mainly differ in the severity of skin reactions. The major criterion for the irritation category is that at least 2 of 3 tested animals have a mean score of ≥ 2.3 and ≤ 4.0. For the mild irritation category, the mean score cut-off values are ≥ 1.5 and < 2.3 for at least 2 of 3 tested animals. Test materials in the irritation category are excluded from the mild irritation category."

Table 3.2.2 In the heading, insert a reference to notes "a", "b" and "c" as follows: "Skin irritation categories [a,b,c]".

In the first column, under "Categories", replace "irritant" with "irritation" (twice).

In the second column, under "Criteria":

- First row, paragraph (1): Replace "Mean value of ≥ 2.3 ≤ 4.0" with "Mean score of ≥ 2.3 and ≤ 4.0";
- Second row: Replace "Mean value of ≥ 1.5 < 2.3" with "Mean score of ≥ 1.5 and < 2.3".

Amend note "a" to read as follows:

"[a] *The use of human data is addressed in 3.2.2.2 and in chapters 1.1 (para.1.1.2.5 (c)) and 1.3 (para.1.3.2.4.7)".*

Add the following two new notes "b" and "c" after the table:

"[b] *Grading criteria are understood as described in OECD Test Guideline 404.*

[c] *Evaluation of a 4, 5 or 6-animal study should follow the criteria given in 3.2.5.3.".*

3.2.2.2 Insert a new sub-heading to read as follows:

"**3.2.2.2 *Classification in a tiered approach***".

3.2.2.2.1 Former 3.2.2.3 becomes new 3.2.2.2.1. Amend the end of the sentence to read as follows: "recognizing that not all elements may be relevant".

3.2.2.2.2 The third sentence of former 3.2.2.2 ("Existing human experience…effects on the skin") becomes new 3.2.2.2.2 as amended to read as follows:

"3.2.2.2.2 Existing human and animal data including information from single or repeated exposure should be the first line of evaluation, as they give information directly relevant to effects on the skin."

3.2.2.2.3 Insert the following sentence as the first sentence of new paragraph 3.2.2.2.3: "Acute dermal toxicity data may be used for classification".

Insert the seventh and eight sentences of former 3.2.2.2 ("It also stands to reason that…and species tested are equivalent") with the following amendments:

- Replace "It also stands to reason that if a substance" with "If a substance";
- Replace "skin irritation/corrosion" with "skin corrosion/irritation" (twice);
- Replace "additional testing would not be needed" with "these data may be used for classification";

Add the second sentence of former 3.2.2.2 ("Solid substances…mucous membranes") as the last sentence of new paragraph 3.2.2.2.3.

3.2.2.2.4 The last sentence of the first paragraph under former 3.2.2.2 "In vitro alternatives… classification decisions" becomes new paragraph 3.2.2.2.4, with the following amendment:

replace "may also be used to help make" with "should be used to make".

3.2.2.2.5 The fifth and sixth sentences of former 3.2.2.2 ("Likewise….significant effects on the skin") become new paragraph 3.2.2.2.5 with the following amendments:

- Replace "especially when buffering capacity is known, although the correlation is not perfect." with "especially when associated with significant acid/alkaline reserve (buffering capacity).";
- Replace "such agents" with "such substances";

Insert the following text as the two last sentences of the new paragraph:

"In the absence of any other information, a substance is considered corrosive (Skin Category 1) if it has a pH $\leq$ 2 or a pH $\geq$ 11.5. However, if consideration of acid/alkaline reserve suggests the substance may not be corrosive despite the low or high pH value, this needs to be confirmed by other data, preferably by data from an appropriate validated in vitro test.".

3.2.2.2.6 The fourth sentence of former 3.2.2.2 ("In some cases...decisions") becomes new paragraph 3.2.2.2.6 with the following amendments:

Replace "enough" with "sufficient" and "compounds" with "substances".

3.2.2.2.7 Insert the following new paragraph:

"3.2.2.2.7 The tiered approach provides guidance on how to organize existing information on a substance and to make a weight of evidence decision about hazard assessment and hazard classification (ideally without conducting new animal tests). Although information might be gained from the evaluation of single parameters within a tier (see 3.2.2.2.1), consideration should be given to the totality of existing information and making an overall weight of evidence determination. This is especially true when there is conflict in information available on some parameters.".

Figure 3.2.1 Insert a new figure 3.2.1 and notes, to read as follows:

Figure 3.2.1: Tiered evaluation for skin corrosion and irritation			
Step	**Parameter**	**Finding**	**Conclusion**
1a:	Existing human or animal skin corrosion/irritation data [a] →	Skin corrosive →	Classify as **skin corrosive** [b]
	↓ Not corrosive/No data ↓		
1b:	Existing human or animal skin corrosion/irritation data [a] →	Skin irritant →	Classify as **skin irritant** [b]
	↓ Not irritant/No data ↓		
1c:	Existing human or animal skin corrosion/irritation data [a] →	Not a skin corrosive or skin irritant →	**Not classified**
	↓ No/Insufficient data ↓		
2:	Other, existing skin data in animals [c] →	Yes; other existing data showing that substance may cause skin corrosion or skin irritation →	May be deemed to be a **skin corrosive** [b] or a **skin irritant** [b]
	↓ No/Insufficient data ↓		
3:	Existing *ex vivo/in vitro* data [d] →	Positive: Skin corrosive →	Classify as **skin corrosive** [b]
	↓ ↘ No/Insufficient data/Negative response ↓	Positive: Skin irritant →	Classify as **skin irritant** [b]
4:	pH-based assessment (with consideration of acid/alkaline reserve of the chemical) [e] →	pH $\leq$ 2 or $\geq$ 11.5 with high acid/alkaline reserve or no data for acid/alkaline reserve →	Classify as **skin corrosive**
	↓ Not pH extreme, no pH data or extreme pH with data showing low/no acid/alkaline reserve ↓		
5:	Validated Structure Activity Relationship (SAR) methods →	Skin corrosive →	Deemed to be **skin corrosive** [b]
	↓ ↘ No/Insufficient data ↓	Skin irritant →	Deemed to be **skin irritant** [b]
6:	Consideration of the total weight of evidence [f] →	Skin corrosive →	Deemed to be **skin corrosive** [b]
	↓ ↘	Skin irritant →	Deemed to be **skin irritant** [b]
7:	**Not classified**		

[a] *Existing human or animal data could be derived from single or repeated exposure(s), for example in occupational, consumer, transport or emergency response scenarios; or from purposely-generated data from animal studies conducted according to validated and internationally accepted test methods. Although human data from accident or poison centre databases can provide evidence for classification absence of incidents is not itself evidence for no classification as exposures are generally unknown or uncertain;*

[b] *Classify in the appropriate category/sub-category, as applicable;*

[c] *All existing animal data should be carefully reviewed to determine if sufficient skin corrosion/irritation evidence is available. In evaluating such data, however, the reviewer should bear in mind that the reporting of dermal lesions may be incomplete, testing and observations may be made on a species other than the rabbit, and species may differ in sensitivity in their responses;*

[d] *Evidence from studies using validated protocols with isolated human/animal tissues or other, non-tissue-based, though validated, protocols should be assessed. Examples of internationally accepted, validated test methods for skin corrosion include OECD Test Guideline 430 (Transcutaneous Electrical Resistance Test (TER)), 431 (Human Skin Model Test), and 435 (Membrane Barrier Test Method). An example of a validated internationally accepted in vitro test method for skin irritation is OECD Test Guideline 439 (Reconstructed Human Epidermis Test Method);*

[e] *Measurement of pH alone may be adequate, but assessment of acid or alkali reserve (buffering capacity) would be preferable. Presently, there is no validated and internationally accepted method for assessing this parameter;*

[f] *All information that is available should be considered and an overall determination made on the total weight of evidence. This is especially true when there is conflict in information available on some parameters. Expert judgment should be exercised prior to making such a determination. Negative results from applicable validated skin corrosion/irritation in vitro tests are considered in the total weight of evidence evaluation.".*

3.2.3.1.1 Amend to read as follows:

"3.2.3.1.1 The mixture should be classified using the criteria for substances, taking into account the tiered approach to evaluate data for this hazard class (as illustrated in Figure 3.2.1).".

3.2.3.1.2 Delete the first sentence ("Unlike…inexpensive to perform").

In the second sentence replace "strategy" with "approach" and "as avoid" with "as to avoid".

Amend the beginning of the third sentence to read: "In the absence of any other information, a mixture is considered…".

Amend the last sentence to read as follows: "However, if consideration of acid/alkaline reserve suggests the mixture may not be corrosive despite the low or high pH value, this needs to be confirmed by other data, preferably by data from an appropriate validated *in vitro* test."

3.2.3.2.1 In the first sentence, replace “skin irritation/corrosion” with “skin corrosion/irritation potential”.

3.2.3.2.2 In the first sentence replace:

- “lower corrosivity/irritancy classification” with “lower skin corrosivity/irritancy classification”;
- “least corrosivity/irritant original” with “least skin corrosivity/irritant original”;
- “affect the corrosivity/irritancy” with “affect the skin corrosivity/irritancy”.

3.2.3.2.3 In the first sentence replace “irritation/corrosion potential” and “toxicity” with “skin corrosion/irritation potential”.

3.2.3.2.4 In the first sentence, replace “for corrosion” with “for skin corrosion”.

In the second sentence:

- Replace “in the highest category for skin irritation” and “in the highest irritation category” with “for skin irritation (Category 2)”
- Replace “does not contain corrosive” with “does not contain skin corrosive”.

3.2.3.2.5 In the heading and in the paragraph, replace “toxicity” with “hazard” (twice) and “irritation/corrosion” with “skin corrosion/irritation” (twice).

3.2.3.2.6 In (d), replace “irritation/corrosion” with “skin corrosion/irritation” and “toxicity” with “skin corrosion/irritation potential”.

3.2.3.2.7 At the end of the paragraph, replace “the irritation or corrosive properties” with “the skin corrosion/irritation properties”.

3.2.3.3.1 Replace “skin irritation/corrosion” with “skin corrosion/irritation” (twice).

3.2.3.3.2 Amend to read as follows:

“3.2.3.3.2 In general, the approach to classification of mixtures as corrosive or irritant to skin when data are available on the ingredients, but not on the mixture as a whole, is based on the theory of additivity, such that each skin corrosive or irritant ingredient contributes to the overall corrosive or irritant properties of the mixture in proportion to its potency and concentration. A weighting factor of 10 is used for corrosive ingredients when they are present at a concentration below the concentration limit for classification with Category 1, but are at a concentration that will contribute to the classification of the mixture as an irritant. The mixture is classified as corrosive or irritant to skin when the sum of the concentrations of such ingredients exceeds a cut-off value/concentration limit.”.

3.2.3.3.3 Replace “be an irritant or a corrosive” with “be corrosive or irritant to the skin”.

3.2.3.3.4 In the second sentence, replace “of such substances” with “such substances”.

In the third sentence, replace “of Table 3.2.3” with “in Table 3.2.3”.

In the last but one sentence replace:

- “skin Category 1” with “skin corrosion Category 1”; and
- “skin Category 2/3” with “skin irritation Category 2 or Category 3”.

3.2.3.3.5 In the first sentence, insert “limits/” before “cut-off values”.

The amendments to the last but one sentence in the French version do not apply to the English version.

In the last sentence, replace “strategy” with “approach”.

3.2.3.3.6 In the first sentence, insert “to skin” after “may be corrosive or irritant”.

Table 3.2.3 The amendment to the heading in the French version does not apply to the English version.

Amend the note under the table to read as follows:

***“NOTE**: Where the sub-categories of skin Category 1 (corrosive) are used, the sum of all ingredients of a mixture classified as sub-category 1A, 1B or 1C respectively, should each be ≥5% in order to classify the mixture as either skin sub-category 1A, 1B or 1C. Where the sum of 1A ingredients is <5% but the sum of 1A+1B ingredients is ≥5%, the mixture should be classified as sub-category 1B. Similarly, where the sum of 1A + 1B ingredients is <5% but the sum of 1A + 1B + 1C ingredients is ≥5% the mixture should be classified as sub-category 1C. Where at least one relevant ingredient in a mixture is classified as Category 1 without sub-categorisation, the mixture should be classified as Category 1 without sub-categorisation if the sum of all ingredients corrosive to skin is ≥5%.”*

Table 3.2.4 In the title, replace “for which the additivity” with “when the additivity”.

In the first column, under “Ingredient” in the third and fourth rows, replace “ingredients” with “ingredient” and delete “for which additivity does not apply”.

In the last column, under “mixture classified as: skin”, for the last row, replace “Category 2” with “Category 2/3”.

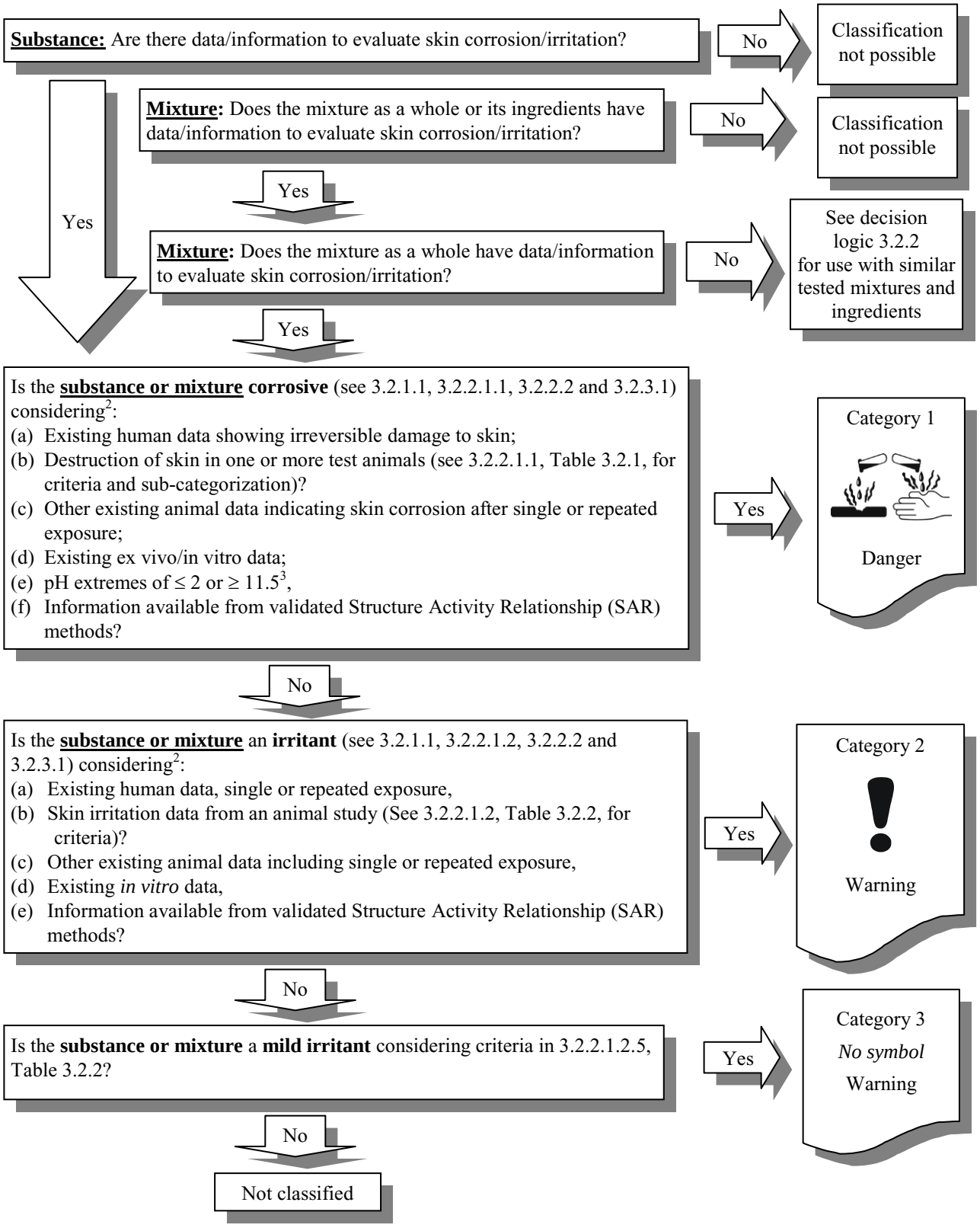
3.2.4 The amendment to the last sentence in the French version does not apply to the English version.

Table 3.2.5 The amendments to the hazard statements in the French version do not apply to the English version.

3.2.5 Amend the heading to read: “Decision logics and guidance”.

Amend the paragraph to read as follows: “The decision logics which follow are not part of the harmonized classification system but are provided here as additional guidance. It is strongly recommended that the person responsible for the classification study the criteria before and during the use of the decision logics.”.

3.2.5.1 Replace decision logic 3.2.1 and related footnotes with the following:

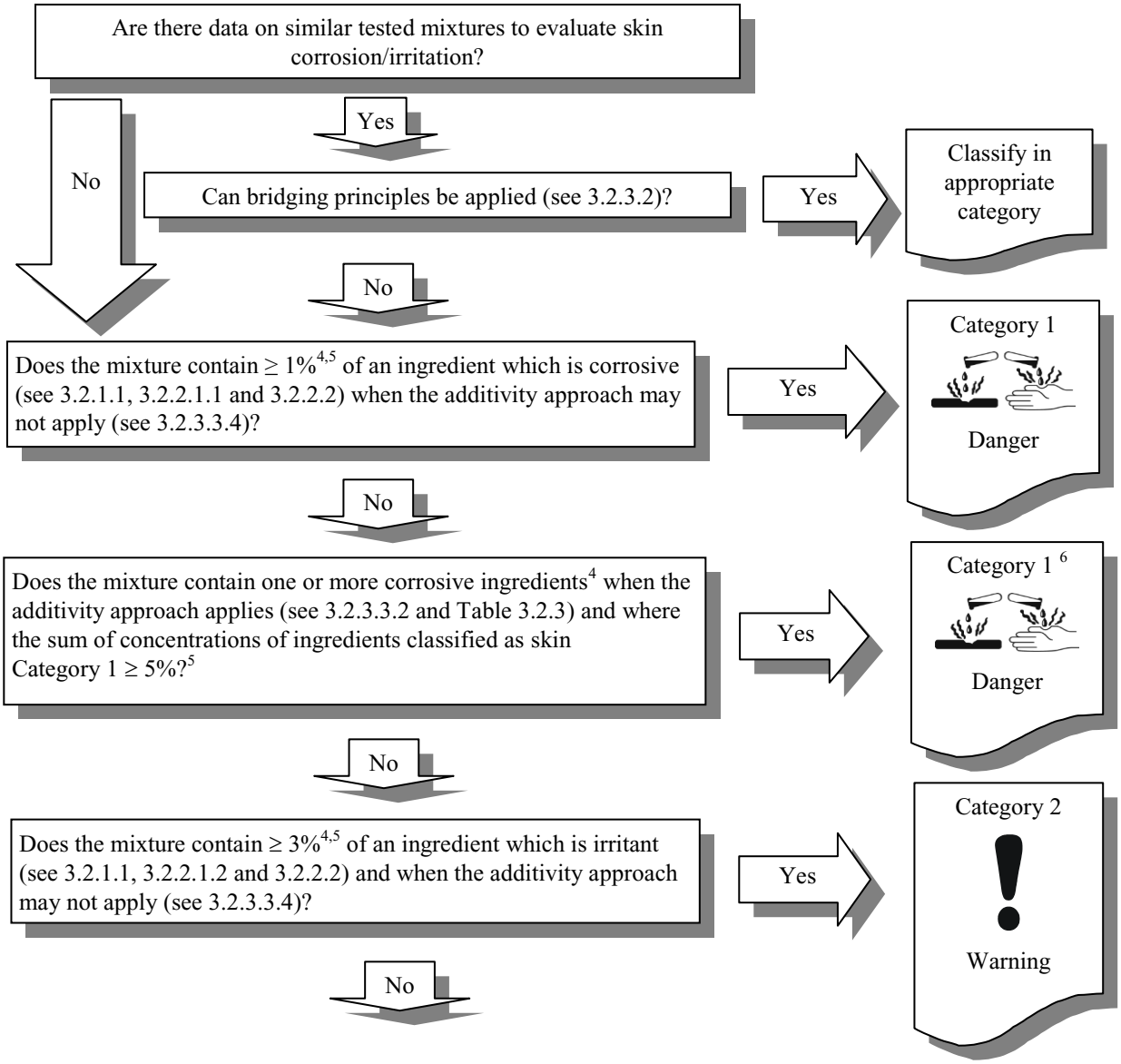


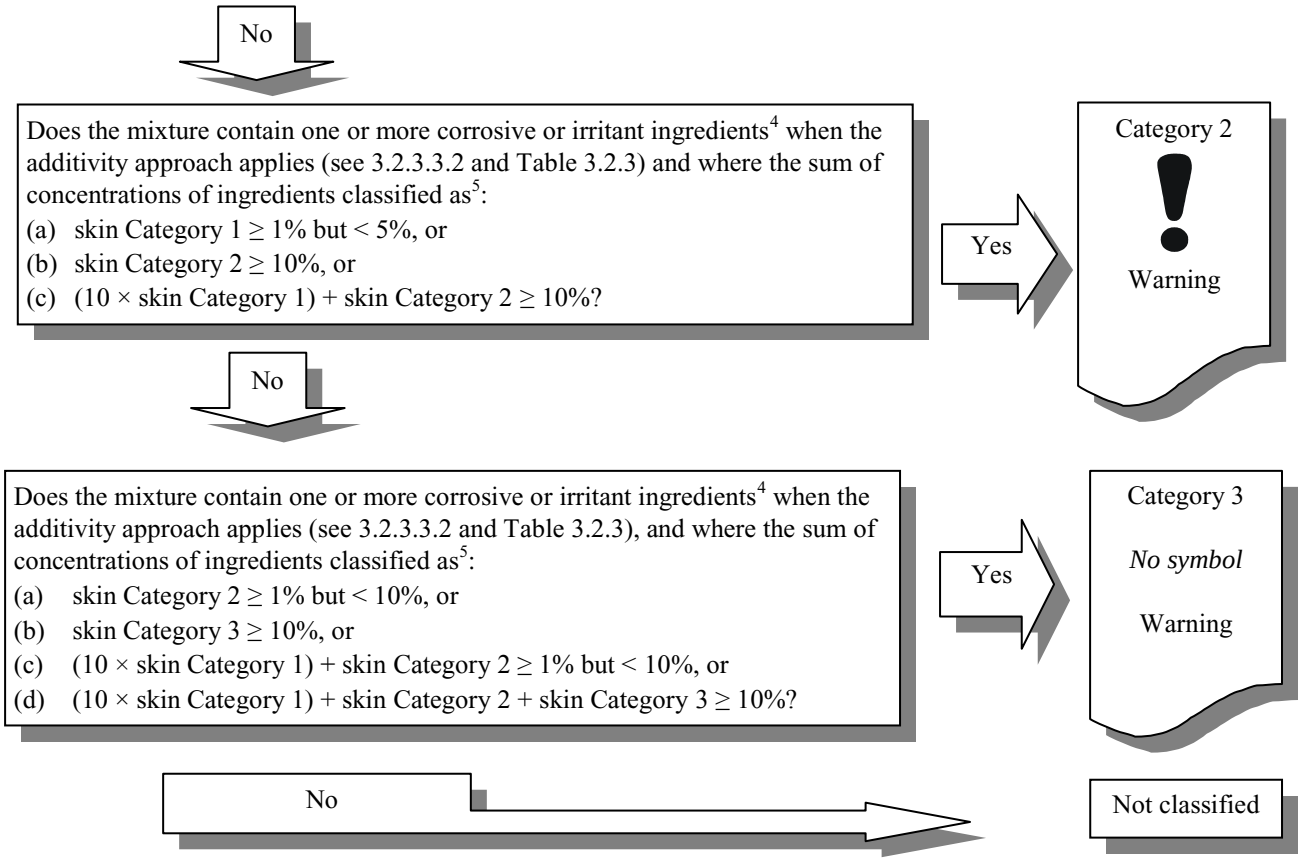
"[2] *Taking into account consideration of the total weight of evidence as needed;*

[3] *Not applicable if consideration of pH and acid/alkaline reserve indicates substance or mixture may not be corrosive and confirmed by other data, preferably by data from an appropriate validated in vitro test."*

3.2.5.2 Replace decision logic 3.2.2 and related footnotes with the following:

"*Classification of mixtures on the basis of information/data on similar tested mixtures and/or ingredients*





"[4] Where relevant < 1%, see 3.2.3.3.1.

[5] For specific concentration limits, see 3.2.3.3.6. See also Chapter 1.3, para. 1.3.3.2 for "Use of cut-off values/concentration limits".

[6] See note to Table 3.2.3 for details on use of Category 1 sub-categories."

3.2.5.3 Insert a new sub-section to read as follows:

"**3.2.5.3 *Background guidance***

3.2.5.3.1 Classification criteria for the skin and eye hazard classes are detailed in the GHS in terms of a 3-animal test. It has been identified that some older test methods may have used up to 6 animals. However, the GHS criteria do not specify how to classify based on existing data from tests with more than 3 animals. Guidance on how to classify based on existing data from studies with 4 or more animals is given in the following paragraphs.

3.2.5.3.2 Classification criteria based on a 3-animal test are detailed in 3.2.2.1. Evaluation of a 4, 5 or 6-animal study should follow the criteria in the following paragraphs, depending on the number of animals tested. Scoring for erythema/eschar and oedema should be performed at 24, 48 and 72 hours after exposure or, if reactions are delayed, from grades on 3 consecutive days after the onset of skin reactions.

3.2.5.3.3 In the case of a study with 6 animals the following principles apply:

(a) The substance or mixture is classified as skin corrosion Category 1 if destruction of skin tissue (that is, visible necrosis through the epidermis and into the dermis) occurs in at least one animal after exposure up to 4 hours in duration;

(b) The substance or mixture is classified as skin irritation Category 2 if at least 4 out of 6 animals show a mean score per animal of ≥ 2.3 and ≤ 4.0 for erythema/eschar or for oedema;

(c) The substance or mixture is classified as skin irritation Category 3 if at least 4 out of 6 animals show a mean score per animal of ≥ 1.5 and < 2.3 for erythema/eschar or for oedema.

3.2.5.3.4 In the case of a study with 5 animals the following principles apply:

(a) The substance or mixture is classified as skin corrosion Category 1 if destruction of skin tissue (that is, visible necrosis through the epidermis and into the dermis) occurs in at least one animal after exposure up to 4 hours in duration;

(b) The substance or mixture is classified as skin irritation Category 2 if at least 3 out of 5 animals show a mean score per animal of ≥ 2.3 and ≤ 4.0 for erythema/eschar or for oedema;

(c) The substance or mixture is classified as skin irritation Category 3 if at least 3 out of 5 animals show a mean score per animal of ≥ 1.5 and < 2.3 for erythema/eschar or for oedema.

3.2.5.3.5 In the case of a study with 4 animals the following principles apply:

(a) The substance or mixture is classified as skin corrosion Category 1 if destruction of skin tissue (that is, visible necrosis through the epidermis and into the dermis) occurs in at least one animal after exposure up to 4 hours in duration;

(b) The substance or mixture is classified as skin irritation Category 2 if at least 3 out of 4 animals show a mean score per animal of ≥ 2.3 and ≤ 4.0 for erythema/eschar or for oedema;

(c) The substance or mixture is classified as skin irritation Category 3 if at least 3 out of 4 animals show a mean score per animal of ≥ 1.5 and < 2.3 for erythema/eschar or for oedema.”

Chapter 3.3

3.3.1 Amend the heading to read: “Definitions and general considerations”.

Insert paragraph number “3.3.1.1” before the definition of “Serious eye damage”.

3.3.1.2 Insert a new paragraph to read as follows:

“3.3.1.2 In a tiered approach, emphasis should be placed upon existing human data, followed by existing animal data, followed by *in vitro* data and then other sources of information. Classification results directly when the data satisfy the criteria. In other cases, classification of a substance or a mixture is made on the basis of the weight of evidence within a tier. In a total weight of evidence approach all available information bearing on the

determination of serious eye damage/eye irritation is considered together, including the results of appropriate validated *in vitro* tests, relevant animal data, and human data such as epidemiological and clinical studies and well-documented case reports and observations (see Chapter 1.3, para. 1.3.2.4.9).".

3.3.2 Replace paragraphs 3.3.2.1, 3.3.2.2, 3.3.2.6, 3.3.2.7 and figure 3.3.1 with the following:

"Substances are allocated to one of the categories within this hazard class, Category 1 (serious eye damage) or Category 2 (eye irritation), as follows:

(a) Category 1 (serious eye damage/irreversible effects on the eye):

substances that have the potential to seriously damage the eyes (see Table 3.3.1).

(b) Category 2 (eye irritation/reversible effects on the eye):

substances that have the potential to induce reversible eye irritation (see Table 3.3.2).

Those authorities desiring one category for classification of "eye irritation" may use the overall Category 2; others may want to distinguish between Category 2A and Category 2B (see Table 3.3.2).".

3.3.2.1 Insert a new sub-heading to read as follows:

"**3.3.2.1 *Classification based on standard animal test data***".

3.3.2.1.1 Former 3.3.2.8 becomes new 3.3.2.1.1 with the following amendments:

- Amend the heading to read as follows: "Serious eye damage (Category 1)/Irreversible effects on the eye"
- In the first sentence, delete "harmonized" and insert "(Category 1)" before "is adopted"
- In the second sentence, delete "- Category 1 (irreversible effects on the eye) -" and replace "includes the criteria listed below" with "includes as criteria the observations listed in Table 3.3.1".
- In the last sentence, replace "Hazard classification: Category 1" with "Hazard classification as Category 1" and "detected in a Draize eye test with rabbits" with "observed in at least 2 of 3 tested animals,".

Table 3.3.1 Replace the table and its related note with the following:

"**Table 3.3.1: Serious eye damage/Irreversible effects on the eye category** [a,b,c]

	Criteria
Category 1: **Serious eye damage/Irreversible effects on the eye**	A substance that produces: (a) in at least one animal effects on the cornea, iris or conjunctiva that are not expected to reverse or have not fully reversed within an observation period of normally 21 days; and/or (b) in at least 2 of 3 tested animals, a positive response of: (i) corneal opacity ≥ 3; and/or (ii) iritis > 1.5; calculated as the mean scores following grading at 24, 48 and 72 hours after instillation of the test material.

[a] *The use of human data is addressed in 3.3.2.2 and in chapters 1.1 (para. 1.1.2.5(c)), and 1.3 (para. 1.3.2.4.7).*

[b] *Grading criteria are understood as described in OECD Test Guideline 405.*

[c] *Evaluation of a 4, 5 or 6-animal study should follow the criteria given in 3.3.5.3.".*

3.3.2.1.2 The heading of former 3.3.2.9 becomes new 3.3.2.1.2 as amended to read as follows: "Eye irritation (Category 2)/reversible effects on the eye".

3.3.2.1.2.1 and 3.3.2.1.2.2 Add the following two new paragraphs:

"3.3.2.1.2.1 Substances that have the potential to induce reversible eye irritation should be classified in Category 2 where further categorization into Category 2A and Category 2B is not required by a competent authority or where data are not sufficient for further categorization. When a chemical is classified as Category 2, without further categorization, the classification criteria are the same as those for Category 2A.

3.3.2.1.2.2 For those authorities wanting more than one designation for reversible eye irritation, categories 2A and 2B are provided:

(a) When data are sufficient and where required by a competent authority substances may be classified in Category 2A or 2B in accordance with the criteria in Table 3.3.2;

(b) For substances inducing eye irritant effects reversing within an observation time of normally 21 days, Category 2A applies. For substances inducing eye irritant effects reversing within an observation time of 7 days, Category 2B applies.".

3.3.2.1.2.3 Former sentence under Table 3.3.2 "For those substances where…in determining the classification" becomes new paragraph 3.3.2.1.2.3.

Table 3.3.2 Replace with the following:

Table 3.3.2: Reversible eye effects categories [a, b, c]

	Criteria
	Substances that have the potential to induce reversible eye irritation
Category 2/2A	Substances that produce in at least 2 of 3 tested animals a positive response of: (a) corneal opacity ≥ 1; and/or (b) iritis ≥ 1; and/or (c) conjunctival redness ≥ 2; and/or (d) conjunctival oedema (chemosis) ≥ 2 calculated as the mean scores following grading at 24, 48 and 72 hours after instillation of the test material, and which fully reverses within an observation period of normally 21 days
Category 2B	Within Category 2A an eye irritant is considered mildly irritating to eyes (Category 2B) when the effects listed above are fully reversible within 7 days of observation

[a] *The use of human data is addressed in 3.3.2.2 in chapters 1.1 (para. 1.1.2.5(c)), and 1.3 (para. 1.3.2.4.7).*

[b] *Grading criteria are understood as described in OECD Test Guideline 405.*

[c] *Evaluation of a 4, 5 or 6-animal study should follow the criteria given in 3.3.5.3."*

3.3.2.2 Insert a new sub-heading to read as follows: "**3.3.2.2 *Classification in a tiered approach***".

3.3.2.2.1 The first sentence of former 3.3.2.6 becomes new paragraph 3.3.2.2.1 with the following amendments:

- Insert "(Figure 3.3.1)" after "applicable"
- Replace "recognizing that all elements may not be relevant in certain cases." with "recognizing that not all elements may be relevant."

3.3.2.2.2 The second and sixth sentences of former 3.3.2.4 ("Accumulated human…effects on the eye" and "Possible skin…corrosive substances") become new paragraph 3.3.2.2.2 with the following amendments:

- In the first sentence, replace "Accumulated" with "Existing", "experience" with "data", "analysis as it gives" with "evaluation as they give".
- In the second sentence, insert "any testing for" after "consideration of".

3.3.2.2.3 The seventh sentence of former 3.3.2.4 ("*In vitro* alternatives…decisions") becomes new paragraph 3.3.2.2.3 with the following amendment: replace "may" with "should".

3.3.2.2.4 The fourth and fifth sentences of former 3.3.2.4 ("Likewise, pH… effects on the eyes") become new paragraph 3.3.2.2.4 with the following amendments:

- In the first sentence, replace "produce" with "indicate" and amend the end to read: "significant acid/alkaline reserve (buffering capacity)".
- Amend the beginning of the second sentence to read: "Generally such substances"
- Add the following new sentences at the end:

  "In the absence of any other information, a substance is considered to cause serious eye damage (Category 1) if it has a pH $\leq$ 2 or $\geq$ 11.5. However, if consideration of acid/alkaline reserve suggests the substance may not cause serious eye damage despite the low or high pH value, this needs to be confirmed by other data, preferably by data from an appropriate validated *in vitro* test."

3.3.2.2.5 The third sentence of former 3.3.2.4 ("In some cases…hazard decisions") becomes new 3.3.2.2.5 with the following amendments:

Replace "enough" with "sufficient", "compounds" with "substances" and "hazard" with "classification".

3.3.2.2.6 Former 3.3.2.7 becomes new 3.3.2.2.6 with the following amendments:

- Amend the beginning of the paragraph to read "The tiered approach provides guidance on how to organize existing information and to make…".
- Insert the last sentence of former 3.3.2.5 ("Animal testing…whenever possible") as the new second sentence.
- Insert the second and third sentences of former 3.3.2.5 ("Although information…but not all parameters") with the following amendments:

- Replace "(e.g. caustic alkalis with extreme pH should be considered as local corrosives), there is merit in considering" with "(see 3.3.2.1.1) consideration should be given to".
- In the last sentence, replace "there is information" with "there is conflict in information" and delete "but not all".

Figure 3.3.1 Insert a new figure 3.3.1 and related notes to read as follows:

Figure 3.3.1: Tiered evaluation for serious eye damage/eye irritation (see also Figure 3.2.1)

Step	Parameter	Finding	Conclusion
1a:	Existing human or animal serious eye damage/eye irritation data [a] →	Serious eye damage →	Classify as causing **serious eye damage**
	↓ ↘	Eye irritant →	Classify as **eye irritant** [b]
	Negative data/Insufficient data/No data		
	↓		
1b:	Existing human or animal data, skin corrosion →	Skin corrosion →	Deemed to cause **serious eye damage**
	↓		
	Negative data/Insufficient data/No data		
	↓		
1c:	Existing human or animal serious eye damage/eye irritation data [a] →	Existing data showing that substance does not cause serious eye damage or eye irritation →	**Not classified**
	↓		
	No/Insufficient data		
	↓		
2:	Other, existing skin/eye data in animals [c] →	Yes; other existing data showing that substance may cause serious eye damage or eye irritation →	May be deemed to cause **serious eye damage** or to be an **eye irritant** [b]
	↓		
	No/Insufficient data		
	↓		
3:	Existing *ex vivo/in vitro eye* data [d] →	Positive: serious eye damage →	Classify as causing **serious eye damage**
	↓ ↘	Positive: eye irritant →	Classify as **eye irritant** [b]
	No/Insufficient data/Negative response		
	↓		
4:	pH-based assessment (with consideration of acid/alkaline reserve of the chemical) [e] →	pH $\leq$ 2 or $\geq$ 11.5 with high acid/alkaline reserve or no data for acid/alkaline reserve →	Classify as causing **serious eye damage**
	↓		
	Not pH extreme, no pH data or extreme pH with data showing low/no acid/alkaline reserve		

Figure 3.3.1: Tiered evaluation for serious eye damage/eye irritation (see also Figure 3.2.1)

Step	Parameter	Finding	Conclusion
	↓		
5:	Validated Structure Activity Relationship (SAR) methods ↓ No/Insufficient data ↓	→ Severe damage to eyes	→ Deemed to cause **serious eye damage**
		→ Eye irritant	→ Deemed to be **eye irritant** [b]
		↘ Skin corrosive	→ Deemed to cause **serious eye damage**
6:	Consideration of the total weight of evidence [f] ↓	→ Serious eye damage	→ Deemed to cause **serious eye damage**
		↘ Eye irritant	→ Deemed to be **eye irritant** [b]
7:	**Not classified**		

[a] *Existing human or animal data could be derived from single or repeated exposure(s), for example in occupational, consumer, transport or emergency response scenarios; or from purposely-generated data from animal studies conducted according to validated and internationally accepted test methods. Although human data from accident or poison centre databases can provide evidence for classification absence of incidents is not itself evidence for no classification as exposures are generally unknown or uncertain;*

[b] *Classify in the appropriate category as applicable;*

[c] *Existing animal data should be carefully reviewed to determine if sufficient serious eye damage/eye irritation evidence is available through other, similar information. It is recognized that not all skin irritants are eye irritants. Expert judgment should be exercised prior to making such a determination;*

[d] *Evidence from studies using validated protocols with isolated human/animal tissues or other non-tissue-based, validated protocols should be assessed. Examples of internationally accepted, validated test methods for identifying eye corrosives and severe irritants (i.e., Serious Eye Damage) include OECD test guidelines 437 (Bovine Corneal Opacity and Permeability (BCOP)) and 438 (Isolated Chicken Eye (ICE)). Presently there are no validated and internationally accepted in vitro test methods for identifying eye irritation. A positive test result from a validated in vitro test on skin corrosion would lead to the conclusion to classify as causing serious eye damage;*

[e] *Measurement of pH alone may be adequate, but assessment of acid/alkaline reserve (buffering capacity) would be preferable. Presently, there is no validated and internationally accepted method for assessing this parameter;*

[f] *All information that is available on a substance should be considered and an overall determination made on the total weight of evidence. This is especially true when there is conflict in information available on some parameters. The weight of evidence including information on skin irritation may lead to classification for eye irritation. Negative results from applicable validated in vitro tests are considered in the total weight of evidence evaluation".*

3.3.3.1 Renumber the two paragraphs currently under 3.3.3.1 as 3.3.3.1.1 and 3.3.3.1.2.

3.3.3.1.1 Replace “will” with “should” and amend the end to read: “and taking into account the tiered approach to evaluate data for this hazard class (as illustrated in Figure 3.3.1)”.

3.3.3.1.2 Delete the first sentence (“Unlike…to perform”).

In the second sentence, replace: “manufacturers” with “classifiers”; “strategy” with “approach” and “as well as avoid” with “as well as to avoid”.

Amend the beginning of the third sentence, to read as follows: “In the absence of any other information, a mixture is considered…”

Amend the last sentence to read as follows:

“However, if consideration of alkali/acid reserve suggests the mixture may not cause serious eye damage despite the low or high pH value, this needs to be confirmed by other data, preferably data from an appropriate validated *in vitro* test.”

3.3.3.2.1 In the first sentence, insert “eye” before “irritation”.

3.3.3.2.2 Amend the first sentence to read as follows:

“If a tested mixture is diluted with a diluent which has an equivalent or lower classification for serious eye damage/eye irritation than the least seriously eye damaging/eye irritant original ingredient and which is not expected to affect the serious eye damage/eye irritancy of other ingredients, then the new diluted mixture may be classified as equivalent to the original tested mixture.”

3.3.3.2.3 Amend the beginning of the sentence to read: “The serious eye damage/eye irritation potential” and replace at the end “toxicity” with “serious eye damage/eye irritation potential”.

3.3.3.2.4 In the heading, insert “eye” before “irritation”

Amend to read as follows:

“If a tested mixture classified for serious eye damage (Category 1) is concentrated, the more concentrated untested mixture should be classified for serious eye damage (Category 1) without additional testing. If a tested mixture classified for eye irritation (Category 2 or 2A) is concentrated and does not contain serious eye damage ingredients, the more concentrated untested mixture should be classified in the same category (Category 2 or 2A) without additional testing.”.

3.3.3.2.5 In the heading and in the paragraph, replace “toxicity” with “hazard”.

In the paragraph, replace (twice) “irritation/serious eye damage” with “serious eye damage/eye irritation”.

3.3.3.2.6 In (d), replace:

- “irritation/serious eye damage” with “serious eye damage/eye irritation”; and
- “toxicity” with “serious eye damage/eye irritation potential”.

3.3.3.2.7 Replace “form of the mixture” with “form of mixture” and “irritation or corrosive properties” with “serious eye damage/eye irritation properties”.

3.3.3.3.1 Replace “eye irritation/serious eye damaging properties” with “serious eye damage/eye irritation properties” and, at the end of the second paragraph, “eye irritation/serious eye damage” with “serious eye damage/eye irritation”.

3.3.3.3.2 Amend to read as follows:

“3.3.3.3.2 In general, the approach to classification of mixtures as seriously damaging to the eye or eye irritant when data are available on the ingredients, but not on the mixture as a whole, is based on the theory of additivity, such that each corrosive or serious eye damaging/eye irritant ingredient contributes to the overall serious eye damage/eye irritation properties of the mixture in proportion to its potency and concentration. A weighting factor of 10 is used for corrosive and serious eye damaging ingredients when they are present at a concentration below the concentration limit for classification with Category 1, but are at a concentration that will contribute to the classification of the mixture as serious eye damaging/eye irritant. The mixture is classified as seriously damaging to the eye or eye irritant when the sum of the concentrations of such ingredients exceeds a threshold cut-off value/concentration limit.”.

3.3.3.3.3 Amend the end of the paragraph to read: “classified as seriously damaging to the eye or an eye irritant”.

3.3.3.3.4 Amend to read as follows:

“3.3.3.3.4 Particular care must be taken when classifying certain types of chemicals such as acids and bases, inorganic salts, aldehydes, phenols, and surfactants. The approach explained in 3.3.3.3.1 and 3.3.3.3.2 might not work given that many such substances are seriously damaging to the eye/eye irritating at concentrations < 1%. For mixtures containing strong acids or bases the pH should be used as classification criterion (see 3.3.3.1.2) since pH will be a better indicator of serious eye damage (subject to consideration of acid/alkali reserve) than the concentration limits in Table 3.3.3. A mixture containing corrosive or serious eye damaging/eye irritating ingredients that cannot be classified based on the additivity approach applied in Table 3.3.3 due to chemical characteristics that make this approach unworkable, should be classified as Eye Category 1 if it contains ≥ 1% of a corrosive or serious eye damaging ingredient and as Eye Category 2 when it contains ≥ 3% of an eye irritant ingredient. Classification of mixtures with ingredients for which the approach in Table 3.3.3 does not apply is summarized in Table 3.3.4.”.

3.3.3.3.5 Replace (twice) “reversible/irreversible eye effects” with “irreversible/reversible eye effects” and “strategy” with “approach”.

3.3.3.3.6 Replace:

- “may be corrosive or irritant” with “may be corrosive to the skin or seriously damaging to the eye/eye irritating”;
- “(corrosive)” with “(corrosive to the skin or seriously damaging to the eye)”; and
- “(irritant)” with “(eye irritant)”.

Table 3.3.3 Replace with the following:

"Table 3.3.3: Concentration of ingredients of a mixture classified as skin Category 1 and/or eye Category 1 or 2 that would trigger classification of the mixture as hazardous to the eye (Category 1 or 2)

Sum of ingredients classified as	**Concentration triggering classification of a mixture as**	
	Serious eye damage	**Eye irritation**
	Category 1	**Category 2/2A**
Skin Category 1 + eye Category 1 [a]	≥ 3%	≥ 1% but < 3%
Eye Category 2		≥ 10% [b]
10 × (skin Category 1 + eye Category 1) [a] + eye Category 2		≥ 10%

[a] *If an ingredient is classified as both skin Category 1 and eye Category 1 its concentration is considered only once in the calculation;*

[b] *A mixture may be classified as eye Category 2B when all relevant ingredients are classified as eye Category 2B."*

Table 3.3.4 In the title replace "for which the additivity" with "when the additivity".

In the table under "Ingredient":

- Amend the existing text ("Other corrosive…does not apply") to read as follows: "Other corrosive (eye Category 1) ingredient"
- Amend the existing text ("Other irritant…does not apply") to read as follows: "Other eye irritant (eye Category 2) ingredient"

3.3.4 In Table 3.3.5:

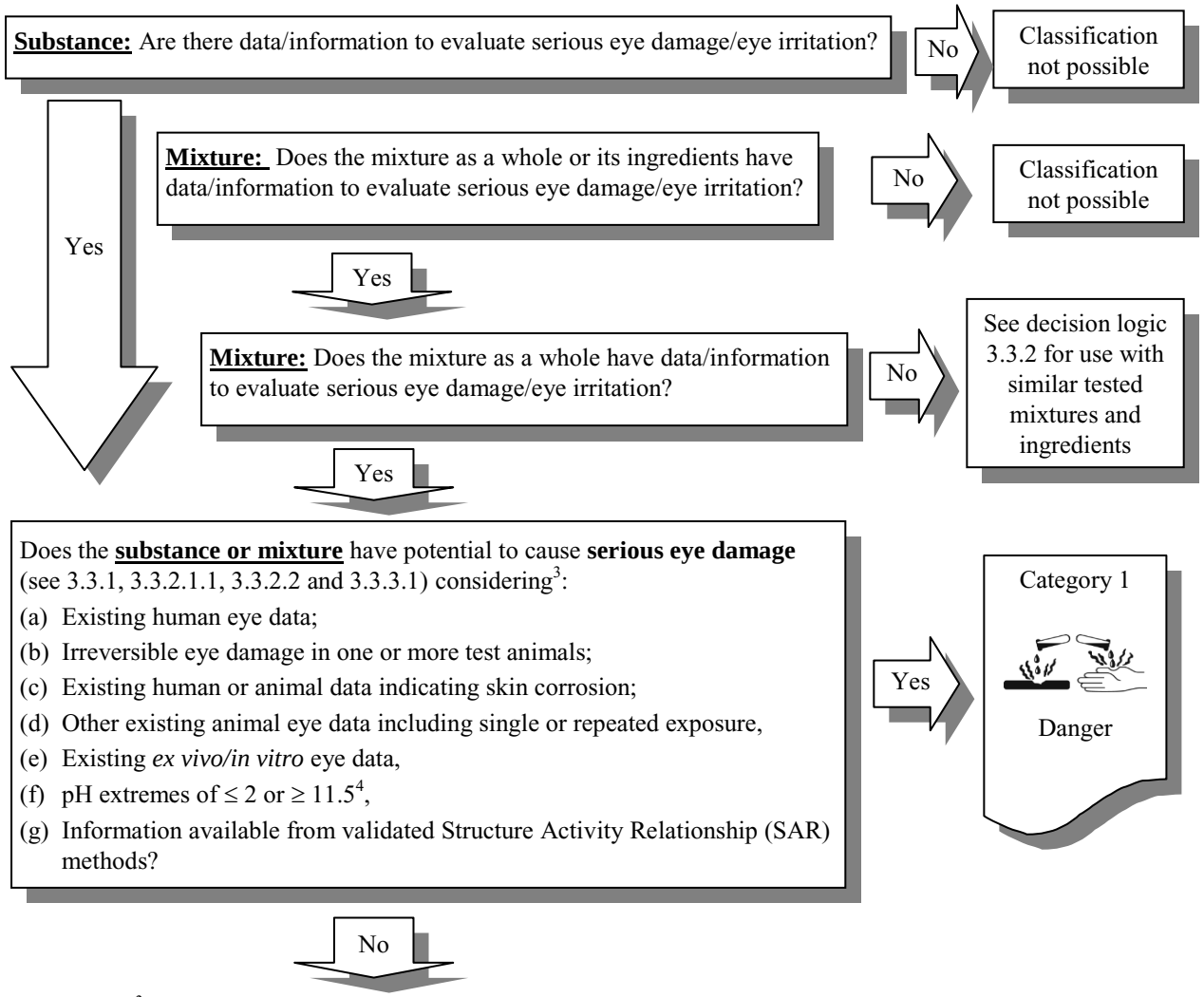
- The amendments to the hazard statements in the French version do not apply to the English version;
- Insert a reference to a new note "a" in the heading, as follows: "Label elements for serious eye damage/irritation[a]";
- Insert the following note "a" under the table:

  "[a] *Where a chemical is classified as skin Category 1, labelling for serious eye damage/eye irritation may be omitted as this information is already included in the hazard statement for skin Category 1 (Causes severe skin burns and eye damage) (see Chapter 1.4, para. 1.4.10.5.3.3).".*

3.3.5 Amend the heading to read: "Decision logics and guidance".

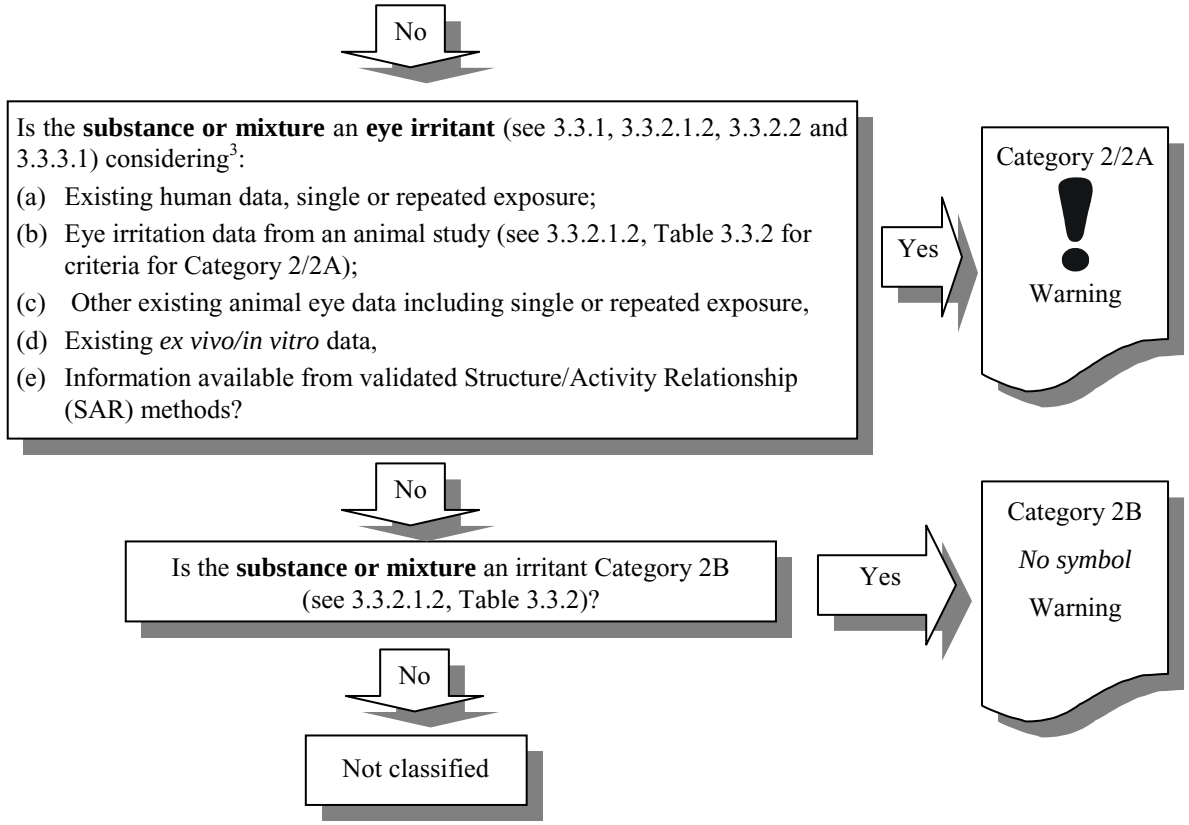
3.3.5.1 Replace decision logic 3.3.1 and its related footnotes with the following:

"**3.3.5.1** ***Decision logic 3.3.1 for serious eye damage/eye irritation***



[3] *Taking into account consideration of the total weight of evidence as needed.*

[4] *Not applicable if consideration of pH and acid/alkaline reserve indicates the substance or mixture many not cause serious eye damage and confirmed by other data, preferably by data from an appropriate validated in vitro test."*

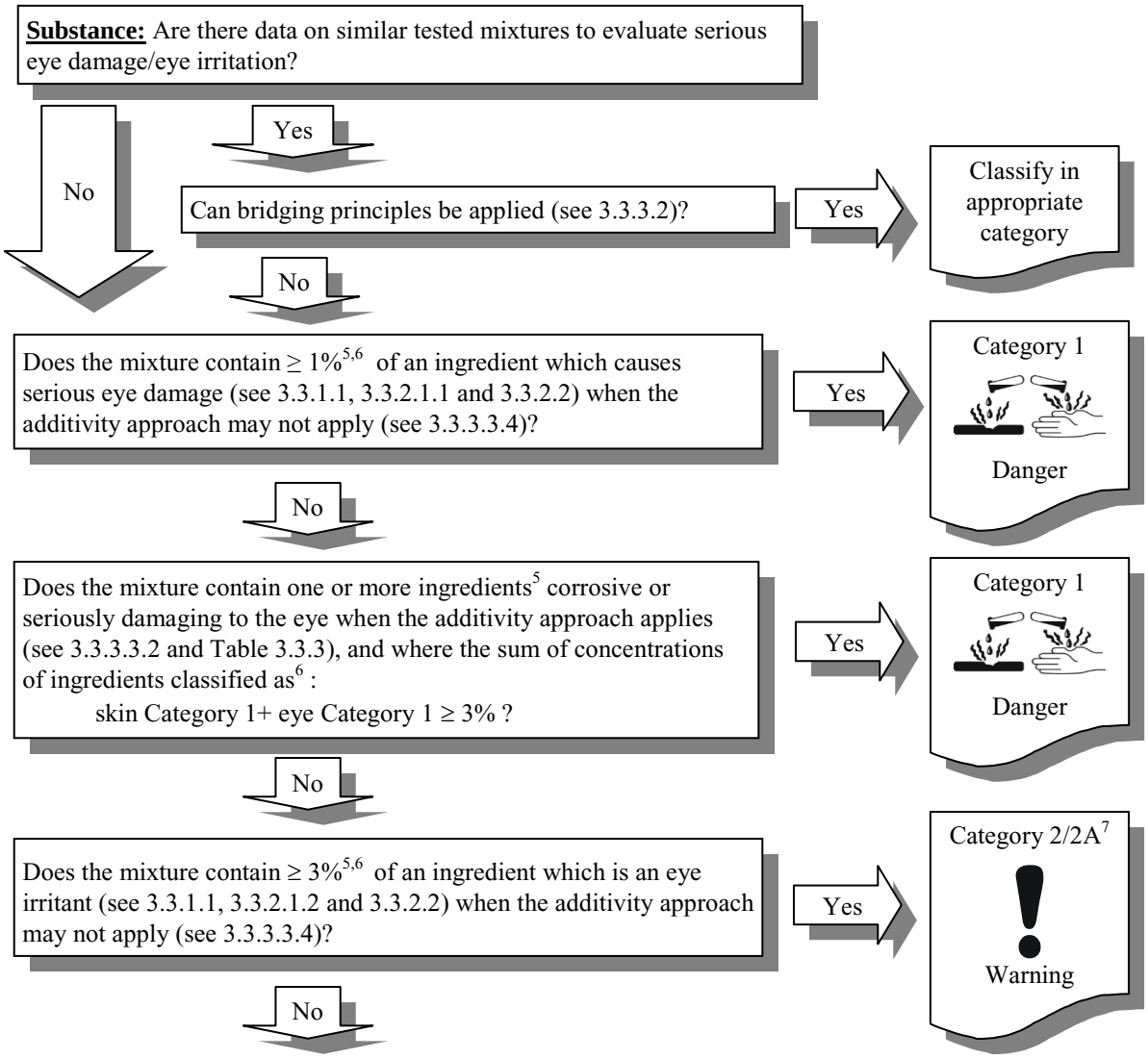


"[3] *Taking into account consideration of the total weight of evidence as needed."*

3.3.5.2 Replace decision logic 3.3.2 with the following:

"**3.3.5.2** ***Decision logic 3.3.2 for serious eye damage/eye irritation***

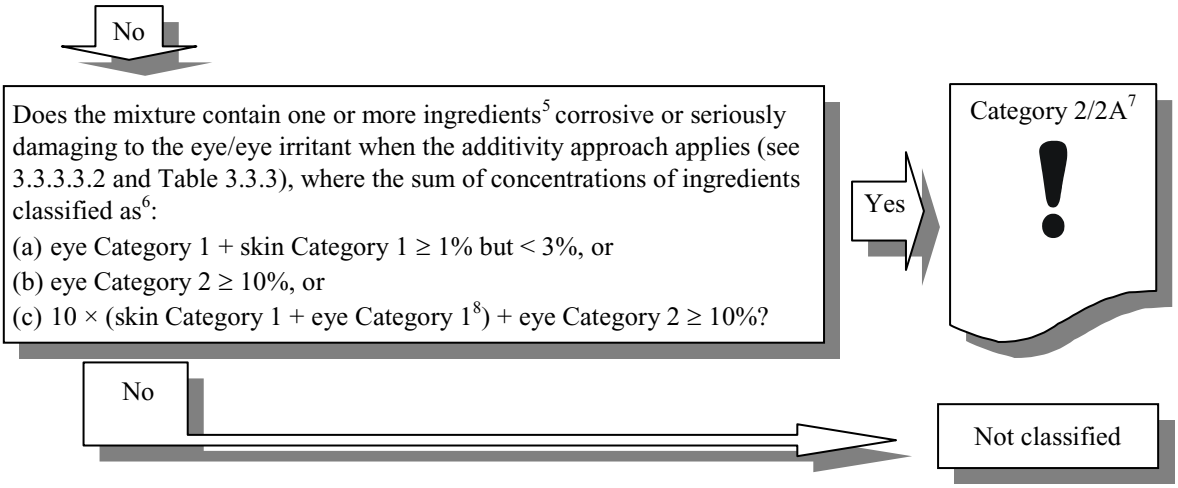
Classification of mixtures on the basis of information/data on similar tested mixtures and ingredients



5 *Where relevant < 1%, see 3.3.3.3.1.*

6 *For specific concentration limits, see 3.3.3.3.5 and 3.3.3.3.6. See also Chapter 1.3, para. 1.3.3.2 for "Use of cut-off values/concentration limits".*

7 *A mixture may be classified as eye Category 2B in case all relevant ingredients are classified as eye Category 2B."*



"[5] Where relevant < 1%, see 3.3.3.3.1.

[6] For specific concentration limits, see 3.3.3.3.5 and 3.3.3.3.6. See also Chapter 1.3, para. 1.3.3.2 for "Use of cut-off values/concentration limits".

[7] A mixture may be classified as eye Category 2B in case all relevant ingredients are classified as eye Category 2B."

[8] If an ingredient is classified as both skin Category 1 and eye Category 1 its concentration is considered only once in the calculation."

3.3.5.3 Insert a new sub-section to read as follows:

"3.3.5.3 *Background guidance*

3.3.5.3.1 Classification criteria for the skin and eye hazard classes are detailed in the GHS in terms of a 3-animal test. It has been identified that some older test methods may have used up to 6 animals. However, the GHS criteria do not specify how to classify based on existing data from tests with more than 3 animals. Guidance on how to classify based on existing data from studies with 4 or more animals is given in the following paragraphs.

3.3.5.3.2 Classification criteria based on a 3-animal test are detailed in 3.3.2.1. Evaluation of a 4, 5 or 6 animal study should follow the criteria in the following paragraphs, depending on the number of animals tested. Scoring should be done at 24, 48 and 72 hours after instillation of the test material.

3.3.5.3.3 In the case of a study with 6 animals the following principles apply:

(a) The substance or mixture is classified as serious eye damage Category 1 if:

(i) at least in one animal effects on the cornea, iris or conjunctiva are not expected to reverse or have not fully reversed within an observation period of normally 21 days; and/or

(ii) at least 4 out of 6 animals show a mean score per animal of ≥ 3 for corneal opacity and/or > 1.5 for iritis.

(b) The substance or mixture is classified as eye irritation Category 2/2A if at least 4 out of 6 animals show a mean score per animal of:

(i) ≥ 1 for corneal opacity and/or

(ii) ≥ 1 for iritis and/or

(iii) ≥ 2 for conjunctival redness and/or

(iv) ≥ 2 for conjunctival oedema (chemosis)

and which fully reverses within an observation period of normally 21 days.

(c) The substance or mixture is classified as irritating to eyes (Category 2B) if the effects listed in sub-paragraph (b) above are fully reversible within 7 days of observation.

3.3.5.3.4 In the case of a study with 5 animals the following principles apply:

(a) The substance or mixture is classified as serious eye damage Category 1 if:

(i) at least in one animal effects on the cornea, iris or conjunctiva are not expected to reverse or have not fully reversed within an observation period of normally 21 days; and/or

(ii) at least 3 out of 5 animals show a mean score per animal of ≥ 3 for corneal opacity and/or > 1.5 for iritis.

(b) The substance or mixture is classified as eye irritation Category 2/2A if at least 3 out of 5 animals show a mean score per animal of:

(i) ≥ 1 for corneal opacity; and/or

(ii) ≥ 1 for iritis; and/or

(iii) ≥ 2 for conjunctival redness; and/or

(iv) ≥ 2 for conjunctival oedema (chemosis)

and which fully reverses within an observation period of normally 21 days.

(c) The substance or mixture is classified as irritating to eyes (Category 2B) if the effects listed in sub-paragraph (b) above are fully reversible within 7 days of observation.

3.3.5.3.5 In the case of a study with 4 animals the following principles apply:

(a) The substance or mixture is classified as serious eye damage Category 1 if:

(i) at least in one animal effects on the cornea, iris or conjunctiva are not expected to reverse or have not fully reversed within an observation period of normally 21 days; and/or

(ii) at least 3 out of 4 animals show a mean score per animal of ≥ 3 for corneal opacity and/or > 1.5 for iritis.

(b) Classification as eye irritation Category 2/2A if at least 3 out of 4 animals show a mean score per animal of:

(i) ≥ 1 for corneal opacity; and/or

(ii) ≥ 1 for iritis; and/or

(iii) ≥ 2 for conjunctival redness; and/or

(iv) ≥ 2 for conjunctival oedema (chemosis)

and which fully reverses within an observation period of normally 21 days.

(c) The substance or mixture is classified as irritating to eyes (Category 2B) if the effects listed in sub-paragraph (b) above are fully reversible within 7 days of observation.".

Chapter 3.5

3.5.2.6 For "Mouse spot test (OECD 484)", insert a reference to the following new footnote and renumber the remaining footnotes accordingly:

"[1] *This Test Guideline has been cancelled but may continue to be used until 2 April 2014.*".

Chapter 3.8

3.8.3.3.5 In the heading and in the text, replace (3 times) "toxicity category" with "hazard category".

Chapter 3.9

3.9.3.3.5 In the heading and in the text, replace (3 times) "toxicity category" with "hazard category".

Chapter 3.10

3.10.3.3.5 In the heading and in the text, replace (3 times) "toxicity category" with "hazard category".

Chapter 4.1

4.1.3.4.5 In the heading and in the text, replace (3 times) "toxicity category" with "hazard category".

4.1.5.1.1 At the end of decision logic 4.1.1 1 (page 234 of the English version of the GHS), in the text box starting with "Use all available…", sub-paragraph (a), replace "toxicity category" with "hazard category".

Annexes 1 and 2

Merge current annexes 1 and 2 of the GHS into one single annex 1 to read as follows:

"**Annex 1**

CLASSIFICATION AND LABELLING SUMMARY TABLES

NOTE: *The codification of hazard statements is further explained in Annex 3 (Section 1). The hazard statement codes are intended to be used for reference purposes only. They are not part of the hazard statement text and should not be used to replace it.*

A1.1 **Explosives** (see Chapter 2.1 for classification criteria)

Classification		**Labelling**				**Hazard statement codes**
Hazard class	**Hazard category**	**Pictogram**		**Signal word**	**Hazard statement**	
		GHS	**UN Model Regulations**[a]			
Explosives	**Unstable explosive**		***(Transport not allowed)***	**Danger**	Unstable explosive	H200
	Division 1.1				Explosive; mass explosion hazard	H201
	Division 1.2				Explosive; severe projection hazard	H202
	Division 1.3				Explosive; fire, blast or projection hazard	H203
	Division 1.4			**Warning**	Fire or projection hazard	H204
	Division 1.5	*No pictogram*		**Danger**	May mass explode in fire	H205
	Division 1.6	*No pictogram*		***No signal word***	*No hazard statement*	*None*

[a] *(*) Place for compatibility group.*

The pictogram for Divisions 1.1, 1.2 and 1.3 is also assigned to substances which have an explosive subsidiary risk, but without the indication of the division number and the compatibility group (see also "Self-reactive substances and mixtures" and "Organic peroxides").

A1.2 **Flammable gases** (including chemically unstable gases) (see Chapter 2.2 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Flammable gases (including chemically unstable gases)	1			**Danger**	Extremely flammable gas	H220
	2	*No pictogram*	*Not required*	**Warning**	Flammable gas	H221
	A (chemically unstable gases)	*No additional pictogram*	*Not required*	*No additional signal word*	*Additional hazard statement:* May react explosively even in the absence of air	H230
	B (chemically unstable gases)	*No additional pictogram*	*Not required*	*No additional signal word*	*Additional hazard statement:* May react explosively even in the absence of air at elevated pressure and/or temperature	H231

[a] *Under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the symbol, number and border line may be shown in black instead of white. The background colour stays red in both cases.*

A1.3 **Aerosols** (see Chapter 2.3 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Aerosols	1			**Danger**	Extremely flammable aerosol Pressurized container: may burst if heated	H222 H229
	2			**Warning**	Flammable aerosol Pressurized container: may burst if heated	H223 H229
	3	*No pictogram*		**Warning**	Pressurized container: may burst if heated	H229

[a] *Under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the symbol, number and border line may be shown in black or white. The background colour stays red in the first two cases and green in the third case.*

A1.4 Oxidizing gases (see Chapter 2.4 for classification criteria)

Classification		Labelling				Hazard statement code
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Oxidizing gases	1			Danger	May cause or intensify fire; oxidizer	H270

A1.5 Gases under pressure (see Chapter 2.5 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Gases under pressure	Compressed gas			Warning	Contains gas under pressure; may explode if heated	H280
	Liquefied gas			Warning	Contains gas under pressure; may explode if heated	H280
	Refrigerated liquefied gas			Warning	Contains refrigerated gas; may cause cryogenic burns or injury	H281
	Dissolved gas			Warning	Contains gas under pressure; may explode if heated	H280

[a] *Under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the symbol, number and border line may be shown in white instead of black. The background colour stays green in both cases. This pictogram is not required for toxic or flammable gases (see also note "a" to tables A1.17and A1.2).*

A1.6 Flammable liquids (see Chapter 2.6 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Flammable liquids	1			**Danger**	Extremely flammable liquid and vapour	H224
	2			**Danger**	Highly flammable liquid and vapour	H225
	3			**Warning**	Flammable liquid and vapour	H226
	4	*No pictogram*	*Not required*	**Warning**	Combustible liquid	H227

[a] *Under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the symbol, number and border line may be shown in black instead of white. The background colour stays red in both cases.*

A1.7 Flammable solids (see Chapter 2.7 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Flammable solids	1			**Danger**	Flammable solid	H228
	2			**Warning**	Flammable solid	H228

A1.8 Self-reactive substances and mixtures (see Chapter 2.8 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Self-reactive substances and mixtures	Type A		*(Transport may not be allowed)*[b]	**Danger**	Heating may cause an explosion	H240
	Type B			**Danger**	Heating may cause a fire or explosion	H241
	Types C and D			**Danger**	Heating may cause a fire	H242
	Types E and F			**Warning**	Heating may cause a fire	H242
	Type G	*No pictogram*	*Not required*	*No signal word*	*No hazard statement*	*None*

[a] *For Type B, under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, special provision 181 may apply (Exemption of explosive label with competent authority approval. See Chapter 3.3 of the UN Model Regulations for more details).*

[b] *May not be acceptable for transport in the packaging in which it is tested (See Chapter 2.5, par. 2.5.3.2.2 of the UN Model Regulations).*

A1.9 Pyrophoric liquids (see Chapter 2.9 for classification criteria)

Classification		Labelling				Hazard statement code
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Pyrophoric liquids	1			**Danger**	Catches fire spontaneously if exposed to air	H250

A1.10 Pyrophoric solids (see Chapter 2.10 for classification criteria)

Classification		Labelling				Hazard statement code
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Pyrophoric solids	1			Danger	Catches fire spontaneously if exposed to air	H250

A1.11 Self-heating substances and mixtures (see Chapter 2.11 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Self-heating substances and mixtures	1			Danger	Self-heating; may catch fire	H251
	2			Warning	Self-heating in large quantities; may catch fire	H252

A1.12 Substances and mixtures, which in contact with water, emit flammable gases (see Chapter 2.12 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Substances and mixtures, which in contact with water, emit flammable gases	1			Danger	In contact with water releases flammable gases which may ignite spontaneously	H260
	2			Danger	In contact with water releases flammable gases	H261
	3			Warning	In contact with water releases flammable gases	H261

[a] *Under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the symbol, number and border line may be shown in black instead of white. The background colour stays blue in both cases.*

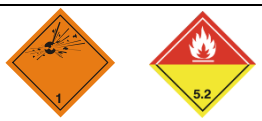
A1.13 Oxidizing liquids (see Chapter 2.13 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Oxidizing liquids	1			**Danger**	May cause fire or explosion; strong oxidizer	H271
	2			**Danger**	May intensify fire; oxidizer	H272
	3			**Warning**	May intensify fire; oxidizer	H272

A1.14 Oxidizing solids (see Chapter 2.14 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Oxidizing solids	1			**Danger**	May cause fire or explosion; strong oxidizer	H271
	2			**Danger**	May intensify fire; oxidizer	H272
	3			**Warning**	May intensify fire; oxidizer	H272

A1.15 Organic peroxides (see Chapter 2.15 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Organic peroxides	Type A		*(Transport may not be allowed)*[b]	**Danger**	Heating may cause an explosion	H240
	Type B			**Danger**	Heating may cause a fire or explosion	H241
	Types C and D			**Danger**	Heating may cause a fire	H242
	Types E and F			**Warning**	Heating may cause a fire	H242
	Type G	*No pictogram*	*Not required*	*No signal word*	*No hazard statement*	*None*

[a] *For Type B, under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, special provision 181 may apply (Exemption of explosive label with competent authority approval. See Chapter 3.3 of UN Model Regulations for more details).*

[b] *May not be acceptable for transport in the packaging in which it is tested (See Chapter 2.5, par. 2.5.3.2.2 of the UN Model Regulations).*

A1.16 Corrosive to metals (see Chapter 2.16 for classification criteria)

Classification		Labelling				Hazard statement code
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Corrosive to metals	1			**Warning**	May be corrosive to metals	H290

A1.17 **Acute toxicity** (see Chapter 3.1 for classification criteria)

Classification			Labelling				Hazard statement codes
Hazard class	Hazard category		Pictogram		Signal word	Hazard statement	
			GHS	UN Model Regulations[a]			
Acute toxicity	1	Oral			Danger	Fatal if swallowed	H300
		Dermal				Fatal in contact with skin	H310
		Inhalation				Fatal if inhaled	H330
	2	Oral			Danger	Fatal if swallowed	H300
		Dermal				Fatal in contact with skin	H310
		Inhalation				Fatal if inhaled	H330
	3	Oral			Danger	Toxic if swallowed	H301
		Dermal				Toxic in contact with skin	H311
		Inhalation				Toxic if inhaled	H331
	4	Oral		*Not required*	Warning	Harmful if swallowed	H302
		Dermal				Harmful in contact with skin	H312
		Inhalation				Harmful if inhaled	H332
	5	Oral	*No pictogram*	*Not required*	Warning	May be harmful if swallowed	H303
		Dermal				May be harmful in contact with skin	H313
		Inhalation				May be harmful if inhaled	H333

[a] *For gases, under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, replace the number "6" in the bottom corner of the pictogram by "2".*

A1.18 Skin corrosion/irritation (see Chapter 3.2 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Skin corrosion/irritation	1			**Danger**	Causes severe skin burns and eye damage	H314
	2		*Not required*	**Warning**	Causes skin irritation	H315
	3[a]	*No pictogram*	*Not required*	**Warning**	Causes mild skin irritation	H316

[a] *Applies to some authorities.*

A1.19 Serious eye damage/eye irritation (see Chapter 3.3 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Serious eye damage/eye irritation	1		*Not required*	**Danger**	Causes serious eye damage	H318
	2/2A		*Not required*	**Warning**	Causes serious eye irritation	H319
	2B	*No pictogram*	*Not required*	**Warning**	Causes eye irritation	H320

A1.20 Respiratory sensitization (see Chapter 3.4 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Respiratory sensitization	1		*Not required*	**Danger**	May cause allergy or asthma symptoms or breathing difficulties if inhaled	H334
	1A[a]		*Not required*	**Danger**	May cause allergy or asthma symptoms or breathing difficulties if inhaled	H334
	1B[a]		*Not required*	**Danger**	May cause allergy or asthma symptoms or breathing difficulties if inhaled	H334

[a] *Sub-categories may be applied where data are sufficient and where required by a competent authority.*

A1.21 Skin sensitization (see Chapter 3.4 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Skin sensitization	1		*Not required*	**Warning**	May cause an allergic skin reaction	H317
	1A[a]		*Not required*	**Warning**	May cause an allergic skin reaction	H317
	1B[a]		*Not required*	**Warning**	May cause an allergic skin reaction	H317

[a] *Sub-categories may be applied where data are sufficient and where required by a competent authority.*

A1.22 Germ cell mutagenicity (see Chapter 3.5 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Germ cell mutagenicity	1 (both 1A and 1B)		*Not required*	**Danger**	May cause genetic defects *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H340
	2		*Not required*	**Warning**	Suspected of causing genetic defects *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H341

A1.23 Carcinogenicity (see Chapter 3.6 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Carcinogenicity	1 (both 1A and 1B)		*Not required*	**Danger**	May cause cancer *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H350
	2		*Not required*	**Warning**	Suspected of causing cancer *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H351

A1.24 Reproductive toxicity (see Chapter 3.7 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Reproductive toxicity	1 (both 1A and 1B)		*Not required*	**Danger**	May damage fertility or the unborn child *(state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H360
	2		*Not required*	**Warning**	Suspected of damaging fertility or the unborn child *(state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H361
	Additional category for effects on or via lactation	*No pictogram*	*Not required*	*No signal word*	May cause harm to breast-fed children	H362

A1.25 Specific target organ toxicity – single exposure (see Chapter 3.8 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Specific target organ toxicity – single exposure	1		*Not required*	**Danger**	Causes damage to organs *(or state all organs affected, if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H370
	2		*Not required*	**Warning**	May cause damage to organs *(or state all organs affected, if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H371
	3		*Not required*	**Warning**	May cause respiratory irritation *or* May cause drowsiness or dizziness	H335 H336

A1.26 Specific target organ toxicity – repeated exposure (see Chapter 3.9 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Specific target organ toxicity – repeated exposure	1		*Not required*	**Danger**	Causes damage to organs *(state all organs affected, if known)* through prolonged or repeated exposure *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H372
	2		*Not required*	**Warning**	May cause damage to organs *(state all organs affected, if known)* through prolonged or repeated exposure*(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*	H373

A1.27 Aspiration hazard (See chapter 3.10 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Aspiration hazard	1		*Not required*	**Danger**	May be fatal if swallowed and enters airways	H304
	2		*Not required*	**Warning**	May be harmful if swallowed and enters airways	H305

A1.28 (a) Hazardous to the aquatic environment, short-term (acute) (see Chapter 4.1 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Hazardous to the aquatic environment, short-term (Acute)	Acute 1			**Warning**	Very toxic to aquatic life	H400
	Acute 2	*No pictogram*	*Not required*	*No signal word*	Toxic to aquatic life	H401
	Acute 3	*No pictogram*	*Not required*	*No signal word*	Harmful to aquatic life	H402

[a] *For Category 1, under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the pictogram is not required if the substance presents any other hazards covered by UN Model Regulations. If no other hazard is presented, this pictogram is required as a mark in addition to the UN Model Regulations Class 9 label.*

A1.28 (b) Hazardous to the aquatic environment, long-term (chronic) (see Chapter 4.1 for classification criteria)

Classification		Labelling				Hazard statement codes
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations[a]			
Hazardous to the aquatic environment, long-term (Chronic)	Chronic 1			Warning	Very toxic to aquatic life with long lasting effects	H410
	Chronic 2			*No signal word*	Toxic to aquatic life with long lasting effects	H411
	Chronic 3	*No pictogram*	*Not required*	*No signal word*	Harmful to aquatic life with long lasting effects	H412
	Chronic 4	*No pictogram*	*Not required*	*No signal word*	May cause long lasting harmful effects to aquatic life	H413

[a] *For categories 1 and 2, under the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, the pictogram is not required if the substance presents any other hazards covered by UN Model Regulations. If no other hazard is presented, this pictogram is required as a mark in addition to the UN Model Regulations Class 9 label.*

A1.29 Hazardous to the ozone layer (see Chapter 4.2 for classification criteria)

Classification		Labelling				Hazard statement code
Hazard class	Hazard category	Pictogram		Signal word	Hazard statement	
		GHS	UN Model Regulations			
Hazardous to the ozone layer	1		*Not required*	Warning	Harms public health and the environment by destroying ozone in the upper atmosphere	H420

Consequential amendments to other parts of the GHS

- Replace current annex 2 (title and contents) with the mention “Annex 2 (Reserved)”.
- Replace “Annex 2” with “Annex 1” throughout the GHS text.

  (Applies to: 2.1.3, second sentence; 2.2.3, second sentence; 2.3.3, second sentence; 2.4.3, second sentence; 2.5.3, second sentence; 2.6.3, second sentence; 2.7.3, second sentence; 2.8.3, second sentence; 2.9.3, second sentence; 2.10.3, second sentence; 2.11.3, second sentence; 2.12.3, second sentence; 2.13.3, second sentence; 2.14.3, second sentence; 2.15.3, second sentence; 2.16.3, second sentence; 3.1.4.1, second sentence; 3.2.4, second sentence; 3.3.4, second sentence; 3.4.4.1, second sentence; 3.5.4, second sentence; 3.6.4, second sentence; 3.7.4, second sentence; 3.8.4.1, second sentence; 3.9.4, second sentence; 3.10.4.1, second sentence; 4.1.4, second sentence; 4.2.3, second sentence).

- In the table of contents:

Amend the title of Annex 1 to read "Annex 1 Classification and labelling summary tables" and replace the title of Annex 2 with the mention *"(Reserved)"*.

Annex 3, section 1

A3.1.2.4 The amendments to H314 and H318 in Table A3.1.1 in the French version do not apply to the English version.

Annex 3, section 2

A3.2.3.3 In the first sentence, replace "backslash" with "forward slash" and in the second sentence replace "the most" with "one or more".

Amend the end of the last sentence to read as follows: "…could read "**wear eye protection**" or **"wear eye and face protection"."**

A3.2.3.4 In the second sentence, amend the text of P241 to read as follows: "**Use explosion-proof [electrical/ventilating/lighting/…]equipment**".

A3.2.3.6 In the third sentence, amend the text of P241 to read as follows: "**Use explosion-proof [electrical/ventilating/lighting/…]equipment**".

Amendments to the precautionary statements in Table A3.2.2

P202

Delete the row for Explosives.

P210

Amend to read: "Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.".

Delete the row for flammable liquids category 4 and in the row for flammable liquids (categories 1, 2, 3) replace "1, 2, 3" with "1, 2, 3, 4" in column (4).

Delete all the conditions for use in column (5).

P220

Amend to read "Keep away from clothing and other combustible materials".

Delete the rows for self-reactive substances and mixtures and organic peroxides.

Delete the rows for oxidising liquids, category 1, and oxidising solids, category 1 and in the remaining rows for categories 2 and 3, replace "2, 3" with "1, 2, 3" in column (4).

Delete all the conditions for use in column (5).

P221

Delete.

P222

In column (5), add the following condition for use to all hazard classes: " – *if emphasis of the hazard statement is deemed necessary*."

P223

In column (5), add the condition for use: " – *if emphasis of the hazard statement is deemed necessary.*".

P230

In column (5), replace *"- if drying out increases explosion hazard, except as needed for manufacturing or operating processes (e.g. nitrocellulose)")* with: *"– for substances and mixtures which are wetted, diluted, dissolved or suspended with a phlegmatizer in order to reduce or suppress their explosive properties (desensitized explosives)."*

P231

Amend to read: "Handle and store contents under inert gas/…"

Insert two new rows for pyrophoric liquids (chapter 2.9), category 1, and pyrophoric solids (chapter 2.10) category 1, with the following condition for use in column (5): "… Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if "inert gas" is not appropriate."

For substances and mixtures which, in contact with water, emit flammable gases add the following conditions for use in column (5):

"- *if the substance or mixture reacts readily with moisture in air*.

…Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if "inert gas" is not appropriate."

P233

For flammable liquids categories 1, 2, and 3, add the following condition for use in column (5): "– *if the liquid is volatile and may generate an explosive atmosphere*.".

Insert two new rows for pyrophoric liquids (chapter 2.9), category 1, and pyrophoric solids (chapter 2.10), category 1.

For acute toxicity, inhalation (categories 1, 2, 3) and specific target organ toxicity (single exposure (respiratory tract irritation and narcotic effects), category 3), amend the condition for use in column (5) to read as follows: *"– if the chemical is volatile and may generate a hazardous atmosphere."*.

P234

Amend to read: "Keep only in original packaging."

Insert a new row for Explosives (chapter 2.1), Divisions 1.1, 1.2, 1.3, 1.4, 1.5.

Under "hazard class" for "Substances and mixtures corrosive to metals" read "Corrosive to metals".

P235

For flammable liquids, under "hazard category", delete "4" and add the following condition for use in column (5): "– *for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere."*.

For self-reactive substances and mixtures, add the following condition for use in column (5): "– *may be omitted if P411 is given on the label."*.

For self-heating substances and mixtures, add the following condition for use in column (5): "– *may be omitted if P413 is given on the label.".*

For organic peroxides, add the condition for use in column (5): *"– may be omitted if P411 is given on the label.".*

P240

Amend to read: "Ground and bond container and receiving equipment".

The amendment in the French version concerning the condition for use applicable to explosives does not apply to the English version.

For flammable liquids, amend the conditions for use in column (5) to read: "– *if the liquid is volatile and may generate an explosive atmosphere*.".

For flammable solids, amend the condition for use in column (5) to read: "– *if the solid is electrostatically sensitive*.".

Insert two new rows for self-reactive substances and mixtures (Chapter 2.8), Types A, B, C, D, E, F, and Organic peroxides (chapter 2.15), Types A, B, C, D, E, F, with the following condition for use in column (5) applicable to both hazard classes: "– *if electrostatically sensitive and able to generate an explosive atmosphere.".*

P241

Amend to read: "Use explosion-proof [electrical/ventilating/lighting/…] equipment".

For flammable liquids, replace the current condition for use in column (5) with the following:

"– if the liquid is volatile and may generate an explosive atmosphere.

– *text in square brackets may be used to specify specific electrical, ventilating, lighting or other equipment if necessary and as appropriate*.

– *precautionary statement may be omitted where local or national legislation introduces more specific provisions".*

For flammable solids, amend the conditions for use in column (5) to read:

"– if dust clouds can occur.

– *text in square brackets may be used to specify specific electrical, ventilating, lighting or other equipment if necessary and as appropriate.*

- *precautionary statement may be omitted where local or national legislation introduces more specific provisions.".*

P242

Amend to read "Use non-sparking tools".

Add the following condition for use in column (5): "– *if the liquid is volatile and may generate an explosive atmosphere and if the minimum ignition energy is very low. (This applies to substances and mixtures where the minimum ignition energy is <0.1mJ, e.g. carbon disulphide)*".

P243

Amend to read: "Take action to prevent static discharges".

Add the following conditions for use in column (5):

"– if the liquid is volatile and may generate an explosive atmosphere.

– *may be omitted where local or national legislation introduces more specific provisions.*".

P250

Amend to read: "Do not subject to grinding/shock/friction/…"

For the hazard class explosives, under "hazard category" replace "Divisions" with "Unstable Explosives and divisions", and insert the following condition for use in column (5) before "…Manufacturer/supplier…": "– *if the explosive is mechanically sensitive.*".

P261

In column (5), place the condition for use "– *may be omitted…label"* before "Manufacturer/supplier…".

P263

Amend to read: "Avoid contact during pregnancy and while nursing."

P280

Under "conditions for use" in column (5):

- For Explosives (chapter 2.1), delete *"– specify face protection*" and replace "type of equipment" with "the appropriate type of equipment.".
- For the group of hazard classes "Flammable liquids", "Flammable solids", "self-reactive substances and mixtures", "pyrophoric liquids", "pyrophoric solids", "self-heating substances and mixtures", "Substances and mixtures which, in contact with water, emit flammable gases", "oxidizing liquids", "oxidizing solids" and "Organic peroxides":
    - delete: "- *specify protective gloves and eye/face protection"* and replace "type of equipment" with "the appropriate type of equipment.".
- For the group of hazard classes "Acute toxicity (dermal)", "Skin corrosion", "skin irritation", "skin sensitisation", "severe eye damage" and "eye irritation":
    - replace "to specify type of equipment" with "may further specify type of equipment where appropriate.".
- For the group of hazard classes "Germ cell mutagenicity", "carcinogenicity" and "reproductive toxicity":
    - amend the condition for use to read as follows: "Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.".

P282

Amend to read: "Wear cold insulating gloves and either face shield or eye protection.".

P283

Amend to read: "Wear fire resistant or flame retardant clothing.".

P284

In column (5) place the condition starting with "– *text in square brackets …"* before "Manufacturer/supplier…".

P231 + P232

Amend to read: “Handle and store contents under inert gas/… Protect from moisture.”

Insert two new rows for pyrophoric liquids (chapter 2.9), category 1, and pyrophoric solids (chapter 2.10), category 1, with the following condition for use applicable to both hazard classes in column (5): “… Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if “inert gas” is not appropriate.”.

For substances and mixtures which, in contact with water, emit flammable gases, add the following conditions for use in column (5):

“- if the substance or mixture reacts readily with moisture in air.

…Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if “inert gas” is not appropriate.”.

P235 + P410

Delete.

Amendments to the precautionary statements in Table A3.2.3

P302

Insert two new rows for pyrophoric solids (chapter 2.10), category 1, and substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12), categories 1 and 2.

P313

The amendment concerning the text of the precautionary statement in the French version does not apply to the English version.

Add the following condition for use in column (5) applicable to all hazard classes: “Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.”.

P314

The amendment concerning the text of the precautionary statement in the French version does not apply to the English version.

Add the following condition for use in column (5): “Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.”.

P315

The amendment concerning the text of the precautionary statement in the French version does not apply to the English version.

Add the condition for use in column (5): “Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.”.

P320

In column (5), place the condition for use “– *if immediate ...required”* before “…Reference to…”.

P321

In column (5), place the conditions for use starting with “– *if”* before “…Reference to”.

For the hazard classes “skin corrosion”, “skin irritation” and “skin sensitization”, delete the dash before the condition for use “Manufacturer/supplier…” in column (5) and show it as plain text (i.e.: non-italicized).

P334

Amend to read: “Immerse in cool water [or wrap in wet bandages].”

For pyrophoric liquids and pyrophoric solids, add the following condition for use in column (5): “– *text in square brackets to be used for pyrophoric liquids and solids*.”.

For substances and mixtures which, in contact with water, emit flammable gases, add the following condition for use in column (5): “– *use only “Immerse in cool water.” Text in square brackets should not be used.*”.

P337

The amendment concerning the text of the precautionary statement in the French version does not apply to the English version.

P353

Amend to read: “Rinse skin with water [or shower]”.

Add the following condition for use in column (5) for all hazard classes: “– *text in square brackets to be included where the manufacturer/supplier or the competent authority considers it appropriate for the specific chemical.”*.

P370

For the hazard class “Explosives”, under “Hazard category” replace “Divisions” with “Unstable explosives and divisions”.

Insert a new row for Organic Peroxides (Chapter 2.15), Types A, B, C, D, E, F.

P372

Amend to read: “Explosion risk.”

For the hazard class “Explosives”:

- under “hazard category” delete “1.4” and in column (5) delete the condition for use *(“– except if …THEREOF”).*
- Insert a new row for Division 1.4 with the following condition for use in column (5): *“- except for explosives of division 1.4 (compatibility group S) in transport packaging.”*.

Insert two new rows for self-reactive substances and mixtures (chapter 2.8), Type A, and organic peroxides (chapter 2.15), Type A.

P373

For the hazard class “Explosives”:

- Under “hazard category”, delete “1.4”.
- Insert a new row for Division 1.4 with the following condition for use in column (5): *“– except for explosives of division 1.4 (compatibility group S) in transport packaging.*”.

Insert two new rows for self-reactive substances and mixtures (chapter 2.8), Type A, and organic peroxides (chapter 2.15), Type A.

P374

Delete.

P375

Insert a new row for Explosives (chapter 2.1) Division 1.4, with the following condition for use in column (5): "- *for explosives of division 1.4 (compatibility group S) in transport packaging.*".

In the row for self-reactive substances and mixtures, under "hazard category" replace "Types A, B" with "Type B".

Insert a new row for organic peroxides (chapter 2.15), Type B.

P378

In the row for self-reactive substances and mixtures, under "hazard category" delete "A".

Insert a new row for organic peroxides (chapter 2.15), Types B, C, D, E, F.

Place the condition for use "*– if water increases risk"* before "…Manufacturer/supplier…".

P380

Insert a new row for organic peroxides (chapter 2.15), Types A, B.

P381

Amend to read: "In case of leakage, eliminate all ignition sources."

P390

Under "Hazard class" for: "Substances and mixtures corrosive to metals" read "Corrosive to metals"

P302 + P334

Amend to read: "IF ON SKIN: Immerse in cool water [or wrap in wet bandages] and add the following condition for use in column (5): *"- text in square brackets to be used for pyrophoric liquids*".

P308 + P313

The amendment concerning the text of the precautionary statement in the French version does not apply to the English version.

Add the following condition for use in column (5) applicable to all hazard classes: "Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.".

P332 + P313

The amendment concerning the text of the precautionary statement in the French version does not apply to the English version.

In the existing condition for use in column (5), replace "appears" with "is given".

Add the following condition for use: "Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.".

P333 + P313

The amendment concerning the text of the precautionary statement in the French version does not apply to the English version.

Add the following condition for use in column (5): "Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.".

P336 + P315 (new)

Add a new combination statement P336 + P315 to read as follows: "Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention" and apply to Gases under pressure (chapter 2.5), Refrigerated liquefied gas, with the following condition for use in column (5): "Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.".

P337 + P313

The amendment concerning the text of the precautionary statement in the French version does not apply to the English version.

Add the following condition for use in column (5): "Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.".

P370 + P378

For Self-reactive substances and mixtures, under "Hazard category" delete "A, B";

Insert a new row for Organic peroxides (chapter 2.15), Types C, D, E, F.

Place the condition for use "*– if water increases risk"* before "…Manufacturer/supplier…".

P335 + P334 (new P302 + P335 + P334)

Add P302, so that combined statement becomes P302 + P335 + P334 to read as follows: "IF ON SKIN: Brush off loose particles from skin. Immerse in cool water [or wrap in wet bandages].".

For pyrophoric solids, add the following condition for use in column (5): "*- text in square brackets to be used for pyrophoric solids.""*

For substances and mixtures which, in contact with water, emit flammable gases, add the following condition for use in column (5): *"- Use only "Immerse in cool water". Text in square brackets should not be used.*".

P303 + P361 + P353

Amend to read: "IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]." and add the following condition for use in column (5) applicable to all hazard classes: *"– text in square brackets to be included where the manufacturer/supplier or the competent authority considers it appropriate for the specific chemical.".*

P370 + P380 + P375

Insert a new row for Explosives (chapter 2.1), Division 1.4, with the following condition for use in column (5): *"– for explosives of division 1.4 (compatibility group S) in transport packaging."*

Delete the row for Self-reactive substances and mixtures.

Insert a new row for Organic peroxides (chapter 2.15), Type B.

P370 + P380 (new P370 + P372 + P380 + P373)

Replace with a new combined precautionary statement P370 + P372 + P380 + P373, to read as follows: "In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives."

For the hazard class "Explosives":

- Under "hazard category" replace "Divisions 1.1, 1.2, 1.3, 1.4, 1.5" with "Unstable explosives and divisions 1.1, 1.2, 1.3, 1.5"
- Insert a new row for Division 1.4 with the following condition for use in column (5): *"- except for explosives of division 1.4 (compatibility group S) in transport packaging".*

Insert two new rows for self-reactive substances and mixtures (chapter 2.8), Type A, and organic peroxides (chapter 2.15), Type A.

P370 + P380 + P375 [+ P378] (new)

Add a new combination statement P370 + P380 + P375 [+ P378] applicable to self-reactive substances (chapter 2.8), Type B, and organic peroxides (chapter 2.15), Type B, to read as follows: "In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. [Use…to extinguish.].", with the following conditions for use in column (5), applicable to all hazard classes:

"*– text in square brackets to be used if water increases risk.*

"…Manufacturer/supplier or the competent authority to specify appropriate media."

Amendments to the precautionary statements in Table A3.2.4

P401

Amend to read: "Store in accordance with…".

Amend the condition for use in column (5) to read: "… Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable".

P403

For flammable liquids, add the following condition for use in column (5): "- *for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere.*"

Insert a new row for Organic peroxides (chapter 2.15), Types A, B, C, D, E, F.

For self-reactive substances and mixtures and Organic peroxides (chapter 2.15), add the following condition for use in column (5)*: "– except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place."*

For the group of hazard classes "acute toxicity, inhalation" and "specific target organ, single exposure" (respiratory tract irritation and narcotic effects), amend the condition for use in column (5) to read as follows: *"– if the chemical is volatile and may generate a hazardous atmosphere".*

P406

Amend to read: "Store in a corrosion resistant/… container with a resistant inner liner."

Under "hazard class" for "Substances and mixtures corrosive to metals" read "Corrosive to metals".

Insert the following condition for use in column (5) before "…Manufacturer/supplier": *"- may be omitted if P234 is given on the label"*.

P407

Amend to read: "Maintain air gap between stacks or pallets."

P411

Amend the condition for use in column (5) to read as follows:

"– if temperature control is required (according to section 2.8.2.3 or 2.15.2.3 of the GHS) or if otherwise deemed necessary;

… Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale."

P412

Add the following condition for use in column (5): "Manufacturer/supplier or the competent authority to use applicable temperature scale.".

P413

Amend the condition for use in column (5) to read: "…Manufacturer/supplier or the competent authority to specify mass and temperature using applicable scale.".

P420

Amend to read: "Store separately".

Insert two new rows for oxidizing liquids (chapter 2.13), category 1, and oxidizing solids (chapter 2.14), category 1.

P422

Delete.

P403 + P233

Amend the condition for use in column (5) to read: "– *if the chemical is volatile and may generate a hazardous atmosphere*".

P403 + P235

For flammable liquids, under "hazard category" delete "4" and add the following new condition for use in column (5): "– *for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere*"."

Delete the row for self-reactive substances and mixtures.

P410 + P403

Amend the beginning of the condition for use in column (5) to read: "– *P410 may be omitted for gases…"*.

P410 + P412

Add the following condition for use in column (5): “Manufacturer/supplier or the competent authority to use applicable temperature scale.”

P411 + P235

Delete.

Amendments to the precautionary statements in Table A3.2.5

P501

Add the following condition for use in column (5), applicable to all hazard classes: “Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.”.

P502

Amend to read: “Refer to manufacturer or supplier for information on recovery or recycling.”

Editorial amendments to Tables A3.2.2, A3.2.3, A3.2.4 and A3.2.5

Reorganise the precautionary statements in the tables in accordance with the sequence below:

- Single precautionary statements (one code);
- Two-code combined precautionary statements ;
- Three-code combined precautionary statements ;
- Four-code combined precautionary statements ;

Annex 3, section 3

A3.3.4.3 Amend to read as follows:

“A3.3.4.3 When a forward slash or diagonal mark [/] appears in a precautionary statement text, it indicates that a choice needs to be made between the phrases they separate. In such cases, the manufacturer or supplier can choose or the competent authorities may prescribe one or more appropriate phrase(s). For example, “**Wear protective gloves/protective clothing/eye protection/face protection**” could read “**Wear eye protection”** or **“wear eye and face protection**”.

A3.3.4.4 In the last sentence, amend the statement to read as follows: “**Use explosion-proof [electrical/ventilating/lighting/…]equipment**”.

A3.3.5 Amend the tables in A3.3.5 in accordance with the amendments to the precautionary statements listed under the heading “Annex 3, Section 2” above, to read as follows:

EXPLOSIVES
(Chapter 2.1)

Symbol
Exploding bomb

Hazard category	**Signal word**	**Hazard statement**
Unstable explosive	Danger	H200 Unstable explosive

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P201 **Obtain special instructions before use.** P250 **Do not subject to grinding/shock/friction/…** *– if the explosive is mechanically sensitive*. …Manufacturer/supplier or the competent authority to specify applicable rough handling. P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P372 + P380 + P373 **In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.**	P401 **Store in accordance with...** … Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable.	P501 **Dispose of contents/container to...** …in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

EXPLOSIVES
(Chapter 2.1)

Symbol
Exploding bomb

Hazard category	**Signal word**	**Hazard statement**	
Division 1.1	Danger	H201	Explosive; mass explosion hazard
Division 1.2	Danger	H202	Explosive; severe projection hazard
Division 1.3	Danger	H203	Explosive; fire, blast or projection hazard

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P230 **Keep wetted with...** *– for substances and mixtures which are wetted, diluted, dissolved or suspended with a phlegmatizer in order to reduce or suppress their explosive properties (desensitized explosives).* … Manufacturer/supplier or the competent authority to specify appropriate material. P234 **Keep only in original packaging.** P240 **Ground and bond container and receiving equipment.** *- if the explosive is electrostatically sensitive.* P250 **Do not subject to grinding/shock/friction/…** *- if the explosive is mechanically sensitive.* …Manufacturer/supplier or the competent authority to specify applicable rough handling. P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370+P372+P380+P373 **In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.**	P401 **Store in accordance with…** … Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable.	P501 **Dispose of contents/container to ...** … in accordance with local/ regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

EXPLOSIVES
(Chapter 2.1)

Symbol
Exploding bomb

Hazard category	**Signal word**	**Hazard statement**	
Division 1.4	Warning	H204	Fire or projection hazard

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources**. **No smoking**. P234 **Keep only in original packaging.** P240 **Ground and bond container and receiving equipment.** *- if the explosive is electrostatically sensitive.* P250 **Do not subject to grinding/shock/friction/…** *- if the explosive is mechanically sensitive* …Manufacturer/supplier or the competent authority to specify applicable rough handling. P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P372 + P380 + P373 **In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.** *– except for explosives of division 1.4 (compatibility group S) in transport packaging.* P370 + P380 + P375 **In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.** *– for explosives of division 1.4 (compatibility group S) in transport packaging.*	P401 **Store in accordance with…** … Manufacturer/supplier or the competent authority to specify local/regional/ national/international regulations as applicable.	P501 **Dispose of contents/container to...** … in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

EXPLOSIVES
(Chapter 2.1)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
Division 1.5	Danger	H205 May mass explode in fire

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources**. **No smoking**. P230 **Keep wetted with...** *– for substances and mixtures which are wetted, diluted, dissolved or suspended with a phlegmatizer in order to reduce or suppress their explosive properties (desensitized explosives).* … Manufacturer/supplier or the competent authority to specify appropriate material. P234 **Keep only in original packaging.** P240 **Ground and bond container and receiving equipment.** *- if the explosive is electrostatically sensitive.* P250 **Do not subject to grinding/shock/friction...** *- if the explosive is mechanically sensitive.* **…**Manufacturer/supplier or the competent authority to specify applicable rough handling. P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P372 + P380 + P373 **In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.**	P401 **Store in accordance with…** … Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable.	P501 **Dispose of contents/container to...** … in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

FLAMMABLE GASES (INCLUDING CHEMICALLY UNSTABLE GASES)

(Chapter 2.2)

(Flammable gases)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**
1	Danger	H220 Extremely flammable gas

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**	P377 **Leaking gas fire:** **Do not extinguish, unless leak can be stopped safely.** P381 **In case of leakage, eliminate all ignition sources.**	P403 **Store in a well-ventilated place.**	

FLAMMABLE GASES (INCLUDING CHEMICALLY UNSTABLE GASES)
(Chapter 2.2)
(Flammable gases)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
2	Warning	H221 Flammable gas

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**	P377 **Leaking gas fire: Do not extinguish, unless leak can be stopped safely.** P381 **In case of leakage, eliminate all ignition sources.**	P403 **Store in a well-ventilated place.**	

FLAMMABLE GASES (INCLUDING CHEMICALLY UNSTABLE GASES)
(Chapter 2.2)
(Chemically unstable gases)

Symbol
No additional symbol

Hazard category	**Signal word**	**Hazard statement**	
A	*No additional signal word*	H230	May react explosively even in the absence of air
B	*No additional signal word*	H231	May react explosively even in the absence of air at elevated pressure and/or temperature

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P202 **Do not handle until all safety precautions have been read and understood.**			

Note: *This table lists only the precautionary statement that is assigned due to the chemical instability of the gas. For the other precautionary statements that are assigned based on the flammability see the respective tables for flammable gases.*

AEROSOLS
(Chapter 2.3)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**	
1	Danger	H222	Extremely flammable aerosol
		H229	Pressurized container: may burst if heated
2	Warning	H223	Flammable aerosol
		H229	Pressurized container: may burst if heated

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P211 **Do not spray on an open flame or other ignition source.** P251 **Do not pierce or burn, even after use.**		P410 + P412 **Protect from sunlight. Do not expose to temperatures exceeding 50 ºC/122 ºF.** Manufacturer/supplier or the competent authority to use applicable temperature scale.	

AEROSOLS
(Chapter 2.3)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
3	Warning	H229 Pressurized container: may burst if heated

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P251 **Do not pierce or burn, even after use.**		P410 + P412 **Protect from sunlight. Do not expose to temperatures exceeding 50 ºC/122 ºF.** Manufacturer/supplier or the competent authority to use applicable temperature scale.	

OXIDIZING GASES
(Chapter 2.4)

Symbol
Flame over circle

Hazard category	Signal word	Hazard statement	
1	Danger	H270	May cause or intensify fire; oxidizer

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P220 **Keep away from clothing and other combustible materials.** P244 **Keep valves and fittings free from oil and grease.**	P370 + P376 **In case of fire: Stop leak if safe to do so.**	P403 **Store in a well-ventilated place.**	

GASES UNDER PRESSURE
(Chapter 2.5)

Symbol
Gas cylinder

Hazard category	Signal word	Hazard statement	
Compressed gas	Warning	H280	Contains gas under pressure; may explode if heated
Liquefied gas	Warning	H280	Contains gas under pressure; may explode if heated
Dissolved gas	Warning	H280	Contains gas under pressure; may explode if heated

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
		P410 + P403 **Protect from sunlight. Store in a well-ventilated place.** *– P410 may be omitted for gases filled in transportable gas cylinders in accordance with packing instruction P200 of the UN Recommendations on the Transport of Dangerous Goods, Model Regulations, unless those gases are subject to (slow) decomposition or polymerisation, or the competent authority provides otherwise.*	

GASES UNDER PRESSURE
(Chapter 2.5)

Symbol
Gas cylinder

Hazard category	**Signal word**	**Hazard statement**	
Refrigerated liquefied gas	Warning	H281	Contains refrigerated gas; may cause cryogenic burns or injury

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P282 **Wear cold insulating gloves and either face shield or eye protection.**	P336 + P315 **Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.	P403 **Store in a well-ventilated place.**	

FLAMMABLE LIQUIDS
(Chapter 2.6)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**	
1	Danger	H224	Extremely flammable liquid and vapour
2	Danger	H225	Highly flammable liquid and vapour
3	Warning	H226	Flammable liquid and vapour

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P233 **Keep container tightly closed.** *- if the liquid is volatile and may generate an explosive atmosphere.* P240 **Ground and bond container and receiving equipment.** *- if the liquid is volatile and may generate an explosive atmosphere.* P241 **Use explosion-proof [electrical/ventilating/ lighting/...] equipment.** *- if the liquid is volatile and may generate an explosive atmosphere.* *– text in square brackets may be used to specify specific electrical, ventilating, lighting or other equipment if necessary and as appropriate.* *– precautionary statement may be omitted where local or national legislation introduces more specific provisions.* P242 **Use non-sparking tools.** *– if the liquid is volatile and may generate an explosive atmosphere and if the minimum ignition energy is very low. (This applies to substances and mixtures where the minimum ignition energy is <0.1mJ, e.g. carbon disulphide).*	P303 + P361 + P353 **IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].** *– text in square brackets to be included where the manufacturer/supplier or the competent authority considers it appropriate for the specific chemical.* P370 + P378 **In case of fire: Use ... to extinguish.** *- if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P403 + P235 **Store in a well-ventilated place. Keep cool.** *– for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere.*	P501 **Dispose of contents/container to...** … in accordance with local/regional/national/ international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

(Cont'd on next page)

FLAMMABLE LIQUIDS
(Chapter 2.6)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**	
1	Danger	H224	Extremely flammable liquid and vapour
2	Danger	H225	Highly flammable liquid and vapour
3	Warning	H226	Flammable liquid and vapour

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P243 **Take action to prevent static discharges.** *- if the liquid is volatile and may generate an explosive atmosphere.* *- may be omitted where local or national legislation introduces more specific provisions.* P280 **Wear protective gloves/protective clothing/eye protection/face protection** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.			

FLAMMABLE LIQUIDS
(Chapter 2.6)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
4	Warning	H227 Combustible liquid

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P280 **Wear protective gloves/protective clothing/eye protection/face protection** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P378 **In case of fire: Use ... to extinguish.** *- if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P403 **Store in a well-ventilated place.** *– for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere.*	P501 **Dispose of contents/container to...** …in accordance with local/regional/ national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

FLAMMABLE SOLIDS
(Chapter 2.7)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**	
1	Danger	H228	Flammable solid
2	Warning	H228	Flammable solid

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P240 **Ground and bond container and receiving equipment.** *– if the solid is electrostatically sensitive.* P241 **Use explosion-proof [electrical/ventilating/ lighting/...] equipment.** *– if dust clouds can occur.* *– text in square brackets may be used to specify specific electrical, ventilating, lighting or other equipment if necessary and as appropriate.* *– precautionary statement may be omitted where local or national legislation introduces more specific provisions.* P280 **Wear protective gloves/ protective clothing/eye protection/face protection** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P378 **In case of fire: Use ... to extinguish** *- if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.		

SELF-REACTIVE SUBSTANCES AND MIXTURES
(Chapter 2.8)

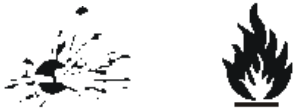
Symbol
Exploding bomb

Hazard category	**Signal word**	**Hazard statement**
Type A	Danger	H240 Heating may cause an explosion

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P234 **Keep only in original packaging.** P235 **Keep cool** *– may be omitted if P411 is given on the label.* P240 **Ground and bond container and receiving equipment.** *- if electrostatically sensitive and able to generate an explosive atmosphere.* P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P372 + P380 + P373 **In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.**	P403 **Store in a well-ventilated place.** *- except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.* P411 **Store at temperatures not exceeding …°C/…°F.** *- if temperature control is required (according to section 2.8.2.3 or 2.15.2.3 of the GHS) or if otherwise deemed necessary.* ... Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale. P420 **Store separately.**	P501 **Dispose of contents/container to...** … in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SELF-REACTIVE SUSBTANCES AND MIXTURES
(Chapter 2.8)

Hazard category	**Signal word**	**Hazard statement**	**Symbol**
Type B	Danger	H241 Heating may cause a fire or explosion	Exploding bomb and flame



Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P234 **Keep only in original packaging.** P235 **Keep cool** *– may be omitted if P411 is given on the label.* P240 **Ground and bond container and receiving equipment.** *- if electrostatically sensitive and able to generate an explosive atmosphere.* P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P380 + P375 [+ P378] **In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. [Use…to extinguish]** *- text in square brackets to be included if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P403 **Store in a well-ventilated place.** *- except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.* P411 **Store at temperatures not exceeding …°C/…°F.** *- if temperature control is required (according to section 2.8.2.3 or 2.15.2.3 of the GHS) or if otherwise deemed necessary.* ... Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale. P420 **Store separately.**	P501 **Dispose of contents/container to**... …in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SELF-REACTIVE SUSBTANCES AND MIXTURES
(Chapter 2.8)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**	
Type C	Danger	H242	Heating may cause a fire
Type D	Danger	H242	Heating may cause a fire
Type E	Warning	H242	Heating may cause a fire
Type F	Warning	H242	Heating may cause a fire

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P234 **Keep only in original packaging.** P235 **Keep cool** *– may be omitted if P411 is given on the label.* P240 **Ground and bond container and receiving equipment.** *- if electrostatically sensitive and able to generate an explosive atmosphere.* P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P378 **In case of fire: Use ... to extinguish** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P403 **Store in a well-ventilated place.** *- except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.* P411 **Store at temperatures not exceeding …°C/…°F.** *- if temperature control is required (according to section 2.8.2.3 or 2.15.2.3 of the GHS) or if otherwise deemed necessary.* ...Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale. P420 **Store separately.**	P501 **Dispose of contents/container to...** …in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

PYROPHORIC LIQUIDS
(Chapter 2.9)

Symbol
Flame

Hazard category	Signal word	Hazard statement	
1	Danger	H250	Catches fire spontaneously if exposed to air

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P222 **Do not allow contact with air.** *– if emphasis of the hazard statement is deemed necessary.* P231 + P232 **Handle and store contents under inert gas/….** **Protect from moisture.** …Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if "inert gas" is not appropriate. P233 **Keep container tightly closed.** P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P302 + P334 **IF ON SKIN: Immerse in cool water or wrap in wet bandages.** P370 + P378 **In case of fire: Use ... to extinguish** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.		

PYROPHORIC SOLIDS
(Chapter 2.10)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**	
1	Danger	H250	Catches fire spontaneously if exposed to air

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P222 **Do not allow contact with air.** *– if emphasis of the hazard statement is deemed necessary.* P231 + P232 **Handle and store contents under inert gas/…. Protect from moisture.** …Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if "inert gas" is not appropriate. P233 **Keep container tightly closed.** P280 **Wear protective gloves/protective clothing/eye protection/face protection** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P302 + P335 + P334 **IF ON SKIN: Brush off loose particles from skin. Immerse in cool water or wrap in wet bandages.** P370 + P378 **In case of fire: Use ... to extinguish** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.		

SELF-HEATING SUBSTANCES AND MIXTURES
(Chapter 2.11)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**	
1	Danger	H251	Self-heating; may catch fire
2	Warning	H252	Self-heating in large quantities; may catch fire

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P235 **Keep cool.** *– may be omitted if P413 is given on the label.* P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.		P407 **Maintain air gap between stacks or pallets.** P413 **Store bulk masses greater than…kg/…lbs at temperatures not exceeding …°C/…°F.** ... Manufacturer/supplier or the competent authority to specify mass and temperature using applicable scale. P420 **Store separately.**	

SUBSTANCES AND MIXTURES WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES
(Chapter 2.12)

Symbol
Flame

Hazard category	Signal word	Hazard statement	
1	Danger	H260	In contact with water releases flammable gases, which may ignite spontaneously
2	Danger	H261	In contact with water releases flammable gas

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P223 **Do not allow contact with water.** *– if emphasis of the hazard statement is deemed necessary.* P231 + P232 **Handle and store contents under inert gas/... Protect from moisture.** *- if the substance or mixture reacts readily with moisture in air.* …Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if "inert gas" is not appropriate. P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P302 + P335 + P334 **IF ON SKIN: Brush off loose particles from skin. Immerse in cool water.** P370 + P378 **In case of fire: Use ... to extinguish** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P402 + P404 **Store in a dry place. Store in a closed container.**	P501 **Dispose of contents/container to...** …in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SUBSTANCES AND MIXTURES WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES
(Chapter 2.12)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**
3	Warning	H261 In contact with water releases flammable gas

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P231 + P232 **Handle and store contents under inert gas/... Protect from moisture.** - *if the substance or mixture reacts readily with moisture in air.* …Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if "inert gas" is not appropriate. P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P378 **In case of fire: Use ... to extinguish.** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P402 + P404 **Store in a dry place. Store in a closed container.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

OXIDIZING LIQUIDS
(Chapter 2.13)

Symbol
Flame over circle

Hazard category	**Signal word**	**Hazard statement**
1	Danger	H271 May cause fire or explosion; strong oxidizer

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P220 **Keep away from clothing and other combustible materials.** P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment. P283 **Wear fire resistant or flame retardant clothing.**	P306 + P360 **IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.** P371 + P380 + P375 **In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.** P370 + P378 **In case of fire: Use ... to extinguish.** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P420 **Store separately.**	P501 **Dispose of contents/container to...** …in accordance with local/regional/ national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

OXIDIZING LIQUIDS
(Chapter 2.13)

Symbol
Flame over circle

Hazard category	Signal word	Hazard statement	
2	Danger	H272	May intensify fire; oxidizer
3	Warning	H272	May intensify fire; oxidizer

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P220 **Keep away from clothing and other combustible materials.** P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P378 **In case of fire: Use ... to extinguish.** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.		P501 **Dispose of contents/container to...** …in accordance with local/regional/ national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

OXIDIZING SOLIDS
(Chapter 2.14)

Symbol
Flame over circle

Hazard category	Signal word	Hazard statement
1	Danger	H271 May cause fire or explosion; strong oxidizer

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P220 **Keep away from clothing and other combustible materials.** P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment. P283 **Wear fire resistant or flame retardant clothing.**	P306 + P360 **IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.** P371 + P380 + P375 **In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.** P370 + P378 **In case of fire: Use ... to extinguish.** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P420 **Store separately.**	P501 **Dispose of contents/container to...** …in accordance with local/regional/ national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

OXIDIZING SOLIDS
(Chapter 2.14)

Symbol
Flame over circle

Hazard category	Signal word	Hazard statement
2	Danger	H272 May intensify fire; oxidizer
3	Warning	H272 May intensify fire; oxidizer

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P220 **Keep away from clothing and other combustible materials.** P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P378 **In case of fire: Use ... to extinguish.** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ORGANIC PEROXIDES

(Chapter 2.15)

Symbol
Exploding bomb

Hazard category	**Signal word**	**Hazard statement**
Type A	Danger	H240 Heating may cause an explosion

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P234 **Keep only in original container.** P235 **Keep cool.** *– may be omitted if P411 is given on the label.* P240 **Ground and bond container and receiving equipment.** *- if electrostatically sensitive and able to generate an explosive atmosphere.* P280 **Wear protective gloves/ protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P372 + P380 + P373 **In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.**	P403 **Store in a well-ventilated place.** *- except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.* P410 **Protect from sunlight.** P411 **Store at temperatures not exceeding …°C/…°F.** *- if temperature control is required (according to section 2.8.2.3 or 2.15.2.3 of the GHS) or if otherwise deemed necessary.* ... Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale P420 **Store separately.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ORGANIC PEROXIDES

(Chapter 2.15)

Symbol
Exploding bomb and flame

Hazard category	Signal word	Hazard statement
Type B	Danger	H241 Heating may cause a fire or explosion

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P234 **Keep only in original packaging.** P235 **Keep cool.** *– may be omitted if P411 is given on the label.* P240 **Ground and bond container and receiving equipment.** *- if electrostatically sensitive and able to generate an explosive atmosphere.* P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P380 + P375 [+ P378] **In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. [Use…to extinguish]** *- text in square brackets to be used if water increases risk.* …Manufacturer/supplier or the competent authority to specify appropriate media.	P403 **Store in a well-ventilated place.** *- except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.* P410 **Protect from sunlight.** P411 **Store at temperatures not exceeding …°C/…°F.** *- if temperature control is required (according to section 2.8.2.3 or 2.15.2.3 of the GHS) or if otherwise deemed necessary.* …Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale. P420 **Store separately.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ORGANIC PEROXIDES

(Chapter 2.15)

Symbol
Flame

Hazard category	**Signal word**	**Hazard statement**	
Type C	Danger	H242	Heating may cause a fire
Type D	Danger	H242	Heating may cause a fire
Type E	Warning	H242	Heating may cause a fire
Type F	Warning	H242	Heating may cause a fire

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.** P234 **Keep only in original packaging.** P235 **Keep cool.** *– may be omitted if P411 is given on the label.* P240 **Ground and bond container and receiving equipment.** *- if electrostatically sensitive and able to generate an explosive atmosphere.* P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P370 + P378 **In case of fire: Use ... to extinguish.** - *if water increases risk.* ... Manufacturer/supplier or the competent authority to specify appropriate media.	P403 **Store in a well-ventilated place.** *- except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.* P411 **Store at temperatures not exceeding …°C/…°F.** *- if temperature control is required (according to section 2.8.2.3 or 2.15.2.3 of the GHS) or if otherwise deemed necessary* .... Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale. P410 **Protect from sunlight.** P420 **Store separately.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

CORROSIVE TO METALS
(Chapter 2.16)

Symbol
Corrosion

Hazard category	**Signal word**	**Hazard statement**	
1	Warning	H290	May be corrosive to metals

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P234 **Keep only in original packaging.**	P390 **Absorb spillage to prevent material-damage.**	P406 **Store in a corrosion resistant/... container with a resistant inner liner.** *- may be omitted if P234 is given on the label* ... Manufacturer/supplier or the competent authority to specify other compatible materials.	

ACUTE TOXICITY - ORAL
(Chapter 3.1)

Symbol
Skull and crossbones

Hazard category	**Signal word**	**Hazard statement**
1	Danger	H300 Fatal if swallowed
2	Danger	H300 Fatal if swallowed

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P264 **Wash …thoroughly after handling.** … Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P270 **Do not eat, drink or smoke when using this product.**	P301 + P310 **IF SWALLOWED: Immediately call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P321 **Specific treatment (see ... on this label)** – *if immediate administration of antidote is required.* .. Reference to supplemental first aid instruction. P330 **Rinse mouth.**	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ACUTE TOXICITY - ORAL
(Chapter 3.1)

Symbol
Skull and crossbones

Hazard category	Signal word	Hazard statement
3	Danger	H301 Toxic if swallowed

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P264 **Wash … thoroughly after handling.** … Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P270 **Do not eat, drink or smoke when using this product.**	P301 + P310 **IF SWALLOWED: Immediately call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P321 **Specific treatment (see ... on this label)** – *if immediate administration of antidote is required.* ... Reference to supplemental first aid instruction. P330 **Rinse mouth.**	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ACUTE TOXICITY - ORAL
(Chapter 3.1)

Symbol
Exclamation mark

Hazard category	**Signal word**	**Hazard statement**
4	Warning	H302 Harmful if swallowed

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P264 **Wash … thoroughly after handling.** … Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P270 **Do not eat, drink or smoke when using this product.**	P301 + P312 **IF SWALLOWED: Call a POISON CENTER/ doctor/…if you feel unwell.** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P330 **Rinse mouth.**		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ACUTE TOXICITY - ORAL
(Chapter 3.1)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**	
5	Warning	H303	May be harmful if swallowed

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
	P312 **Call a POISON CENTER/doctor/…if you feel unwell.** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.		

ACUTE TOXICITY - DERMAL
(Chapter 3.1)

Symbol
Skull and crossbones

Hazard category	**Signal word**	**Hazard statement**	
1	Danger	H310	Fatal in contact with skin
2	Danger	H310	Fatal in contact with skin

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P262 **Do not get in eyes, on skin, or on clothing.** P264 **Wash … thoroughly after handling.** **…** Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P270 **Do not eat, drink or smoke when using this product.** P280 **Wear protective gloves/protective clothing.** Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.	P302 + P352 **IF ON SKIN: Wash with plenty of water/...** …Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate. P310 **Immediately call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P321 **Specific treatment (see ... on this label)** - *if immediate measures such as specific cleansing agent is advised*. ... Reference to supplemental first aid instruction. P361+ P364 **Take off immediately all contaminated clothing and wash it before reuse.**	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ACUTE TOXICITY - DERMAL
(Chapter 3.1)

Symbol
Skull and crossbones

Hazard category	Signal word	Hazard statement
3	Danger	H311 Toxic in contact with skin

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P280 **Wear protective gloves/protective clothing.** Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.	P302 + P352 **IF ON SKIN: Wash with plenty of water/...** …Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate. P312 **Call a POISON CENTER/doctor/…if you feel unwell.** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P321 **Specific treatment (see ... on this label)** *- if immediate measures such as specific cleansing agent is advised.* ... Reference to supplemental first aid instruction. P361 + P364 **Take off immediately all contaminated clothing and wash it before reuse.**	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ACUTE TOXICITY - DERMAL
(Chapter 3.1)

Symbol
Exclamation mark

Hazard category	**Signal word**	**Hazard statement**
4	Warning	H312 Harmful in contact with skin

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P280 **Wear protective gloves/protective clothing** Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.	P302 + P352 **IF ON SKIN: Wash with plenty of water/...** …Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate. P312 **Call a POISON CENTER/doctor/…if you feel unwell.** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P321 **Specific treatment (see ... on this label)** *– if immediate measures such as specific cleansing agent is advised.* ... Reference to supplemental first aid instruction. P362 + P364 **Take off contaminated clothing and wash it before reuse.**		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ACUTE TOXICITY - DERMAL
(Chapter 3.1)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
5	Warning	H313 May be harmful in contact with skin

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
	P312 **Call a POISON CENTER/doctor/…if you feel unwell.** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.		

ACUTE TOXICITY - INHALATION
(Chapter 3.1)

Symbol
Skull and crossbones

Hazard category	**Signal word**	**Hazard statement**
1	Danger	H330 Fatal if inhaled
2	Danger	H330 Fatal if inhaled

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P260 **Do not breathe dust/fume/gas/mist/ vapours/spray.** Manufacturer/supplier or the competent authority to specify applicable conditions. P271 **Use only outdoors or in a well-ventilated area.** P284 **[In case of inadequate ventilation] wear respiratory protection.** – *text in square brackets may be used if additional information is provided with the chemical at the point of use that explains what type of ventilation would be adequate for safe use*. Manufacturer/supplier or the competent authority to specify equipment.	P304 + P340 **IF INHALED: Remove person to fresh air and keep comfortable for breathing.** P310 **Immediately call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P320 **Specific treatment is urgent (see ... on this label)** – *if immediate administration of antidote is required*. ... Reference to supplemental first aid instruction.	P403 + P233 **Store in a well-ventilated place. Keep container tightly closed.** – *if the chemical is volatile and may generate a hazardous atmosphere.* P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ACUTE TOXICITY - INHALATION
(Chapter 3.1)

Symbol
Skull and crossbones

Hazard category	**Signal word**	**Hazard statement**
3	Danger	H331 Toxic if inhaled

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P261 **Avoid breathing dust/fume/gas/mist/ vapours/spray**. *– may be omitted if P260 is given on the label* Manufacturer/supplier or the competent authority to specify applicable conditions. P271 **Use only outdoors or in a well-ventilated area.**	P304 + P340 **IF INHALED: Remove person to fresh air and keep comfortable for breathing.** P311 **Call a POISON CENTER/doctor...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P321 **Specific treatment (see ... on this label)** *– if immediate specific measures are required*. ... Reference to supplemental first aid instruction.	P403 + P233 **Store in a well-ventilated place. Keep container tightly closed.** *– if the chemical is volatile and may generate a hazardous atmosphere.* P405 **Store locked up.**	P501 **Dispose of content/container to…** … in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ACUTE TOXICITY - INHALATION
(Chapter 3.1)

Symbol
Exclamation mark

Hazard category	**Signal word**	**Hazard statement**
4	Warning	H332 Harmful if inhaled

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P261 **Avoid breathing dust/fume/gas/mist/ vapours/spray.** *– may be omitted if P260 is given on the label* Manufacturer/supplier or the competent authority to specify applicable conditions. P271 **Use only outdoors or in a well-ventilated area.**	P304 + P340 **IF INHALED: Remove person to fresh air and keep comfortable for breathing.** P312 **Call a POISON CENTER/doctor/…if you feel unwell.** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.		

ACUTE TOXICITY - INHALATION
(Chapter 3.1)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
5	Warning	H333 May be harmful if inhaled

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
	P304 + P312 **IF INHALED:** **Call a POISON CENTER/doctor/…if you feel unwell.** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.		

SKIN CORROSION/IRRITATION
(Chapter 3.2)

Symbol
Corrosion

Hazard category	**Signal word**	**Hazard statement**
1A to 1C	Danger	H314 Causes severe skin burns and eye damage

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P260 **Do not breathe dusts or mists.** *- if inhalable particles of dusts or mists may occur during use.* P264 **Wash …thoroughly after handling.** **…**Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.	P301 + P330 + P331 **IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.** P303 + P361 + P353 **IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].** *– text in square brackets to be included where the manufacturer/supplier or the competent authority considers it appropriate for the specific chemical.* P363 **Wash contaminated clothing before reuse.** P304 + P340 **IF INHALED: Remove person to fresh air and keep comfortable for breathing.** P310 **Immediately call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P321 **Specific treatment (see ... on this label)** ... Reference to supplemental first aid instruction. Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate. P305 + P351 + P338 **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SKIN CORROSION/IRRITATION
(Chapter 3.2)

Symbol
Exclamation mark

Hazard category	Signal word	Hazard statement
2	Warning	H315 Causes skin irritation

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P264 **Wash … thoroughly after handling.** … Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P280 **Wear protective gloves.** Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.	P302 + P352 **IF ON SKIN: Wash with plenty water/…** …Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate. P321 **Specific treatment (see ... on this label)** ... Reference to supplemental first aid instruction. Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate. P332 + P313 **If skin irritation occurs: Get medical advice/attention.** *– may be omitted when P333+P313 appears on the label* Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate. P362 + P364 **Take off contaminated clothing and wash it before reuse.**		

SKIN CORROSION/IRRITATION

(Chapter 3.2)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
3	Warning	H316 Causes mild skin irritation

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
	P332 + P313 **If skin irritation occurs: Get medical advice/attention.** *– may be omitted when P333+P313 appears on the label* Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.		

EYE DAMAGE/IRRITATION
(Chapter 3.3)

Symbol
Corrosion

Hazard category	Signal word	Hazard statement
1	Danger	H318 Causes serious eye damage

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P280 **Wear eye protection/face protection.** Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.	P305 + P351 + P338 **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.** P310 **Immediately call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.		

EYE DAMAGE/IRRITATION
(Chapter 3.3)

Symbol
Exclamation mark

Hazard category	Signal word	Hazard statement
2A	Warning	H319 Causes serious eye irritation

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P264 **Wash … thoroughly after handling.** **…** Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P280 **Wear eye protection/face protection.** Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.	P305 + P351 + P338 **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.** P337 + P313 **If eye irritation persists: Get medical advice/attention.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.		

EYE DAMAGE/IRRITATION
(Chapter 3.3)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
2B	Warning	H320 Causes eye irritation

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P264 **Wash … thoroughly after handling.** … Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling.	P305 + P351 + P338 **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.** P337 + P313 **If eye irritation persists: Get medical advice/attention.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.		

SENSITIZATION - RESPIRATORY

(Chapter 3.4)

Symbol
Health hazard

Hazard category	**Signal word**	**Hazard statement**	
1, 1A, 1B	Danger	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P261 **Avoid breathing dust/fume/gas/mist/ vapours/spray.** *– may be omitted if P260 is given on the label* Manufacturer/supplier or the competent authority to specify applicable conditions. P284 **[In case of inadequate ventilation] wear respiratory protection.** *– text in square brackets may be used if additional information is provided with the chemical at the point of use that explains what type of ventilation would be adequate for safe use*. Manufacturer/supplier or the competent authority to specify equipment	P304 + P340 **IF INHALED: remove person to fresh air and keep comfortable for breathing.** P342 + P311 **If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SENSITIZATION - SKIN
(Chapter 3.4)

Symbol
Exclamation mark

Hazard category	Signal word	Hazard statement
1, 1A, 1B	Warning	H317 May cause an allergic skin reaction

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P261 **Avoid breathing dust/fume/gas/mist/ vapours/spray.** *– may be omitted if P260 is given on the label* Manufacturer/supplier or the competent authority to specify applicable conditions. P272 **Contaminated work clothing should not be allowed out of the workplace.** P280 **Wear protective gloves.** Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.	P302 + P352 **IF ON SKIN: Wash with plenty of water/…** …Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate. P333 + P313 **If skin irritation or rash occurs: Get medical advice/attention.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate. P321 **Specific treatment (see ... on this label)** ... Reference to supplemental first aid instruction. Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate. P362 + P364 **Take off contaminated clothing and wash it before reuse.**		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

GERM CELL MUTAGENICITY
(Chapter 3.5)

Symbol
Health hazard

Hazard category	Signal word	Hazard statement
1	Danger	H340 May cause genetic defects <...>
2	Warning	H341 Suspected of causing genetic defects <...>
		<...> *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P201 **Obtain special instructions before use.** P202 **Do not handle until all safety precautions have been read and understood.** P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P308 + P313 **IF exposed or concerned: Get medical advice/attention.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

CARCINOGENICITY
(Chapter 3.6)

Symbol
Health hazard

Hazard category	**Signal word**	**Hazard statement**
1	Danger	H350 May cause cancer <...>
2	Warning	H351 Suspected of causing cancer <...>

<...> *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).*

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P201 **Obtain special instructions before use.** P202 **Do not handle until all safety precautions have been read and understood.** P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P308 + P313 **IF exposed or concerned: Get medical advice/attention.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

REPRODUCTIVE TOXICITY
(Chapter 3.7)

Symbol
Health hazard

Hazard category	Signal word	Hazard statement
1	Danger	H360 May damage fertility or the unborn child <...> <<...>>
2	Warning	H361 Suspected of damaging fertility or the unborn child <...> <<...>>
		<...> *(state specific effect if known)*
		<<...>> *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P201 **Obtain special instructions before use.** P202 **Do not handle until all safety precautions have been read and understood.** P280 **Wear protective gloves/protective clothing/eye protection/face protection.** Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.	P308 + P313 **IF exposed or concerned: Get medical advice/attention.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

REPRODUCTIVE TOXICITY
(Chapter 3.7)
(EFFECTS ON OR VIA LACTATION)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**	
(additional)	*No signal word*	H362	May cause harm to breast-fed children

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P201 **Obtain special instructions before use.** P260 **Do not breathe dusts or mists.** *– if inhalable particles of dusts or mists may occur during use.* P263 **Avoid contact during pregnancy and while nursing.** P264 **Wash … thoroughly after handling.** **…**Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P270 **Do not eat, drink or smoke when using this product.**	P308 + P313 **IF exposed or concerned: Get medical advice/attention.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.		

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Chapter 3.8)

Symbol
Health hazard

Hazard category	**Signal word**	**Hazard statement**
1	Danger	H370 Causes damage to organs <...> <<...>> <...> *(or state all organs affected if known)* <<...>> *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P260 **Do not breathe dust/fume/gas/mist/ vapours/spray.** Manufacturer/supplier or the competent authority to specify applicable conditions. P264 **Wash …thoroughly after handling.** … Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P270 **Do not eat, drink or smoke when using this product.**	P308 + P311 **IF exposed or concerned: Call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P321 **Specific treatment (see ... on this label)** – *if immediate measures are required*. ... Reference to supplemental first aid instruction.	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Chapter 3.8)

Symbol
Health hazard

Hazard category	**Signal word**	**Hazard statement**
2	Warning	H371 May cause damage to organs <...> <<...>> <...> *(or state all organs affected, if known)* <<...>> *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P260 **Do not breathe dust/fume/gas/mist/ vapours/spray.** Manufacturer/supplier or the competent authority to specify applicable conditions. P264 **Wash … thoroughly after handling.** … Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P270 **Do not eat, drink or smoke when using this product.**	P308 + P311 **IF exposed or concerned: Call a POISON CENTER/doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
(Chapter 3.8)

Symbol
Exclamation mark

Hazard category	**Signal word**	**Hazard statement**	
3	Warning	H335	May cause respiratory irritation; or
		H336	May cause drowsiness or dizziness

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P261 **Avoid breathing dust/fume/gas/mist/ vapours/spray.** *– may be omitted if P260 is given on the label.* Manufacturer/supplier or the competent authority to specify applicable conditions. P271 **Use only outdoors or in a well-ventilated area.**	P304 + P340 **IF INHALED: Remove person to fresh air and keep comfortable for breathing.** P312 **Call a POISON CENTER/doctor/…if you feel unwell.** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.	P403 + P233 **Store in a well-ventilated place. Keep container tightly closed.** *– if the chemical is volatile and may generate a hazardous atmosphere.* P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)
(Chapter 3.9)

Symbol
Health hazard

Hazard category	**Signal word**	**Hazard statement**
1	Danger	H372 Causes damage to organs <...> through prolonged or repeated exposure <<...>> <...> *(state all organs affected, if known)* <<...>> *(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P260 **Do not breathe dust/fume/gas/mist/ vapours/spray.** Manufacturer/supplier or the competent authority to specify applicable conditions. P264 **Wash … thoroughly after handling.** …Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling. P270 **Do not eat, drink or smoke when using this product.**	P314 **Get medical advice/attention if you feel unwell.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)
(Chapter 3.9)

Symbol
Health hazard

Hazard category	Signal word	Hazard statement	
2	Warning	H373	May cause damage to organs <...> through prolonged or repeated exposure <<...>>
		<...>	*(state all organs affected, if known)*
		<<...>>	*(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)*

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P260 **Do not breathe dust/fume/gas/mist/ vapours/spray.** Manufacturer/supplier or the competent authority to specify applicable conditions.	P314 **Get medical advice/attention if you feel unwell.** Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

ASPIRATION HAZARD
(Chapter 3.10)

Symbol
Health hazard

Hazard category	Signal word	Hazard statement	
1	Danger	H304	May be fatal if swallowed and enters airways
2	Warning	H305	May be harmful if swallowed and enters airways

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
	P301 + P310 **IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...** …Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice. P331 **Do NOT induce vomiting.**	P405 **Store locked up.**	P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD
(Chapter 4.1)

Symbol
Environment

Hazard category	**Signal word**	**Hazard statement**
1	Warning	H400 Very toxic to aquatic life

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P273 **Avoid release to the environment.** *- if this is not the intended use.*	P391 **Collect spillage.**		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD
(Chapter 4.1)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**	
2	*No signal word*	H401	Toxic to aquatic life
3	*No signal word*	H402	Harmful to aquatic life

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P273 **Avoid release to the environment.** *- if this is not the intended use.*			P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

HAZARDOUS TO THE AQUATIC ENVIRONMENT - LONG-TERM HAZARD
(Chapter 4.1)

Symbol
Environment

Hazard category	**Signal word**	**Hazard statement**	
1	Warning	H410	Very toxic to aquatic life with long lasting effects
2	*No signal word*	H411	Toxic to aquatic life with long lasting effects

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P273 **Avoid release to the environment.** - *if this is not the intended use.*	P391 **Collect spillage.**		P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

HAZARDOUS TO THE AQUATIC ENVIRONMENT - LONG-TERM HAZARD
(Chapter 4.1)

Symbol
No symbol

Hazard category	**Signal word**	**Hazard statement**
3	*No signal word*	H412 Harmful to aquatic life with long lasting effects
4	*No signal word*	H413 May cause long lasting harmful effects to aquatic life

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
P273 **Avoid release to the environment.** - *if this is not the intended use.*			P501 **Dispose of contents/container to...** ... in accordance with local/regional/national/international regulations (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.

HAZARDOUS TO THE OZONE LAYER
(Chapter 4.2)

Symbol
Exclamation mark

Hazard category	**Signal word**	**Hazard statement**	
1	Warning	H420	Harms public health and the environment by destroying ozone in the upper atmosphere

Precautionary statements			
Prevention	**Response**	**Storage**	**Disposal**
			P502 **Refer to manufacturer or supplier for information on recovery or recycling**

Annex 3, Section 4

Insert a new section 4 in Annex 3 to read as follows:

“Annex 3

Section 4

CODIFICATION OF PICTOGRAMS

A3.4.1 Introduction

A3.4.1.1 *Pictogram* means a graphical composition that may include a symbol plus other graphic elements, such as a border, background pattern or colour that is intended to convey specific information.

A3.4.1.2 This section contains the recommended code assigned to each of the pictograms prescribed by the GHS for sectors other than transport.

A3.4.1.3 The pictogram code is intended to be used for references purposes. It is not part of the pictogram and should not appear on labels or in section 2 of the safety data sheet.

A3.4.2 Codification of pictograms

A3.4.2.1 GHS pictograms for sectors other than transport are assigned a unique alphanumerical code as follows:

(a) the letters “GHS”; and

(b) a sequential number “01”, “02”, “03” etc. assigned in accordance with Table A3.4.1 below.

Table A3.4.1

Code	Hazard pictogram	Symbol
GHS01		Exploding bomb
GHS02		Flame
GHS03		Flame over circle
GHS04		Gas cylinder

Code	Hazard pictogram	Symbol
GHS05		Corrosion
GHS06		Skull and crossbones
GHS07		Exclamation mark
GHS08		Health hazard
GHS09		Environment

”

Consequential amendments

- Amend the title of Annex 3 and its related entry in the table of contents to read:

  “CODIFICATION OF HAZARD STATEMENTS, CODIFICATION AND USE OF PRECAUTIONARY STATEMENTS, CODIFICATION OF HAZARD PICTOGRAMS AND EXAMPLES OF PRECAUTIONARY PICTOGRAMS”

- Current section 4 in Annex 3 of the GHS becomes new section 5.

Annex 4

A4.3.2.3 Add the following new sentence at the end of the existing text:

“The statement “May form explosible dust-air mixture if dispersed” is appropriate in the case of a dust explosion hazard.”

A4.3.5.1 Amend the end of the paragraph to read as follows:

“… involving the substance or mixture (e.g., avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture).”

A4.3.7.1.1 Insert a new (c) to read as follows: “(c) draws attention to operations and conditions which create new risks by altering the properties of the substance or mixture, and to appropriate countermeasures; and”.

Consequential amendments:

- Delete “and” at the end of current (b)
- Current (c) (“minimizes the release…”) becomes new (d)

A4.3.11.1 Amend the sentence following sub-paragraphs (a) to (j) to read: “These hazards should always be listed on the SDS.”

A4.3.11.2 to A4.3.11.5 Renumber as follows:

- Current A4.3.11.3 becomes new A4.3.11.2
- Current A4.3.11.5 becomes new A4.3.11.3
- Current A4.3.11.2 becomes new A4.3.11.4
- Current A4.3.11.4 becomes new A4.3.11.5

A4.3.11.6 Amend to read as follows:

"A4.3.11.6 If data for any of these hazards are not available, they should still be listed on the SDS with a statement that data are not available. Also provide information on the relevant negative data (see A4.2.2.3). If data are available showing that the substance or mixture does not meet the criteria for classification, it should be stated on the SDS that the substance or mixture has been evaluated and based on available data, does not meet the classification criteria. Additionally, if a substance or mixture is found to be not classified for other reasons, for example, due to technical impossibility to obtain data, or inconclusive data, this should be clearly stated on the SDS."

A4.3.12.1 Amend to read as follows:

"A4.3.12.1 The information that shall be provided in this section is to enable evaluation of the environmental impact of the substance or mixture if it were released to the environment. This information can assist in handling spills, and evaluating waste treatment practices, control of release, accidental release measures, and transport."

A4.3.12.2 Insert a new paragraph A4.3.12.2 to read as follows:

"A4.3.12.2 A concise but complete and comprehensible description of the various ecotoxicological (environment) properties, and the available data used to identify those properties, should be provided. The basic properties, for which data should be provided, are:

(a) Toxicity;

(b) Persistence and degradability;

(c) Bioaccumulative potential;

(d) Mobility in soil;

(e) Other adverse effects.

These properties should always be listed on the SDS. Species, media, units, test duration and test conditions should be clearly indicated. (If data for any of these properties are not available, they should still be listed on the SDS with a statement that data are not available).".

A4.3.12.3 Current paragraph A4.3.12.2 becomes new paragraph A4.3.12.3.

Amend the end of the second sentence to read: "…and appropriate, for each relevant ingredient of the mixture (i.e. those which are required to be listed in Section 3 of the SDS)."

A4.3.12.4 Insert a new paragraph A4.3.12.4 to read as follows:

"A4.3.12.4 Provide also a short summary of the data given under A4.3.12.5 to A4.3.12.9 in relation to the hazard classification criteria. Where data are not available for classification, this should be clearly stated on the SDS for each basic property concerned. Additionally, if data are available showing that the substance or mixture does not meet the criteria for classification, it should be stated on the SDS that the substance or mixture has been evaluated and, based on available data, does not meet the classification criteria. Additionally, if a substance or mixture is found to be not classified for other reasons, for example, due to technical impossibility to obtain the data, or inconclusive data, this should be clearly stated on the SDS.".

Renumber current paragraphs A4.3.12.3 to A4.3.12.7 as new paragraphs A4.3.12.5 to A4.3.12.9.

Consequential amendment: In the new A4.3.12.6 replace "(see also A4.3.12.6)" with "(see also A4.3.12.8)".

Annex 9

In Appendix V, paragraph 2, fourth line, after "OECD Test Guideline 204 (1984) Fish, Prolonged Toxicity Test: 14-Day Study", insert a reference to the following new footnote:

"[2] *This Test Guideline has been cancelled but may continue to be used until 2 April 2014.*".

Amend the beginning of the text of current footnotes 1, 2 and 3 to read: "The list below will need…".

Annex 10

In the Appendix, Bibliography, fourth line, after "OECD Guideline for Testing of Chemicals, Paris (1992). Guideline 204: Fish, Prolonged Toxicity Test: 14-Day Study", insert a reference to the following new footnote:

"[3] *This Test Guideline has been cancelled but may continue to be used until 2 April 2014.*".