

ANNEX 3

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

Annex 3

Section 1

CODIFICATION OF HAZARD STATEMENTS

A3.1.1 Introduction

A3.1.1.1 *Hazard statement* means a statement assigned to a hazard class and category that describes the nature of the hazards of a hazardous product, including, where appropriate, the degree of hazard.

A3.1.1.2 This section contains the recommended codes assigned to each of the hazard statements applicable to the hazard categories under the GHS.

A3.1.1.3 The hazard statement codes are intended to be used for reference purposes. They are not part of the hazard statement text and should not be used to replace it.

A3.1.2 Codification of hazard statements

A3.1.2.1 Hazard statements are assigned a unique alphanumeric code which consists of one letter and three numbers, as follows:

- (a) the letter “H” (for “hazard statement”);
- (b) a number designating the type of hazard to which the hazard statement is assigned according to the numbering of the different parts of the GHS, as follows:
 - “2” for physical hazards;
 - “3” for health hazards;
 - “4” for environmental hazards;
- (c) two numbers corresponding to the sequential numbering of hazards arising from the intrinsic properties of the substance or mixture, such as explosivity (codes from 200 to 210), flammability (codes from 220 to 230), etc.

A3.1.2.2 The codes to be used for designating hazard statements are listed, in numerical order, in Table A3.1.1 for physical hazards, Table A3.1.2 for health hazards and Table A3.1.3 for environmental hazards. Each table is divided into 4 columns containing the following information:

Column (1) The hazard statement code;

Column (2) The hazard statement text;

The text in bold should appear on the label, except as otherwise specified. The information in italics should also appear as part of the hazard statement when the information is known.

For example: “**causes damages to organs** (*or 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*)”.

Column (3) Hazard class, with a reference to the chapter of the GHS where information about the hazard class may be found.

Column (4) The hazard category or categories within a hazard class for which the use of a hazard statement is applicable.

A3.1.2.3 In addition to individual hazard statements, a number of combined hazard statements are given in Table A3.1.2. The alphanumerical codes for the combined statements are constructed from the codes for the individual statements that are combined, conjoined with the plus (“+”) sign. For example, H300 + H310 indicates that the text to appear on the label is “Fatal if swallowed or in contact with skin”.

A3.1.2.4 All assigned hazard statements should appear on the label unless otherwise specified in 1.4.10.5.3.3. The competent authority may specify the order in which they appear. Also, where a combined hazard statement is indicated for two or more hazard statements, the competent authority may specify whether the combined hazard statement or the corresponding individual statements should appear on the label, or may leave the choice to the manufacturer/supplier.

Table A3.1.1: Hazard statement codes for physical hazards

Code (1)	Physical hazard statements (2)	Hazard class (GHS chapter) (3)	Hazard category (4)
H200	Unstable explosive	Explosives (chapter 2.1)	Unstable explosive
H201	Explosive; mass explosion hazard	Explosives (chapter 2.1)	Division 1.1
H202	Explosive; severe projection hazard	Explosives (chapter 2.1)	Division 1.2
H203	Explosive; fire, blast or projection hazard	Explosives (chapter 2.1)	Division 1.3
H204	Fire or projection hazard	Explosives (chapter 2.1)	Division 1.4
H205	May mass explode in fire	Explosives (chapter 2.1)	Division 1.5
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H220	Extremely flammable gas	Flammable gases (chapter 2.2)	1
H221	Flammable gas	Flammable gases (chapter 2.2)	2
H222	Extremely flammable aerosol	Aerosols (chapter 2.3)	1
H223	Flammable aerosol	Aerosols (chapter 2.3)	2
H224	Extremely flammable liquid and vapour	Flammable liquids (chapter 2.6)	1
H225	Highly flammable liquid and vapour	Flammable liquids (chapter 2.6)	2
H226	Flammable liquid and vapour	Flammable liquids (chapter 2.6)	3
H227	Combustible liquid	Flammable liquids (chapter 2.6)	4
H228	Flammable solid	Flammable solids (chapter 2.7)	1, 2
H229	Pressurized container: may burst if heated	Aerosols (chapter 2.3)	1, 2, 3
H230	May react explosively even in the absence of air	Flammable gases (including chemically unstable gases) (chapter 2.2)	A (Chemically unstable gases)
H231	May react explosively even in the absence of air at elevated pressure and/or temperature	Flammable gases (including chemically unstable gases) (chapter 2.2)	B (Chemically unstable gases)
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H240	Heating may cause an explosion	Self-reactive substances and mixtures (chapter 2.8); and Organic peroxides (chapter 2.15)	Type A
H241	Heating may cause a fire or explosion	Self-reactive substances and mixtures (chapter 2.8); and Organic peroxides (chapter 2.15)	Type B
H242	Heating may cause a fire	Self-reactive substances and mixtures (chapter 2.8); and Organic peroxides (chapter 2.15)	Types C, D, E, F

Code	Physical hazard statements	Hazard class (GHS chapter)	Hazard category
(1)	(2)	(3)	(4)
H250	Catches fire spontaneously if exposed to air	Pyrophoric liquids (chapter 2.9); Pyrophoric solids (chapter 2.10)	1
H251	Self-heating; may catch fire	Self-heating substances and mixtures (chapter 2.11)	1
H252	Self-heating in large quantities; may catch fire	Self-heating substances and mixtures (chapter 2.11)	2
H260	In contact with water releases flammable gases which may ignite spontaneously	Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1
H261	In contact with water releases flammable gas	Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	2, 3
H270	May cause or intensify fire; oxidizer	Oxidizing gases (chapter 2.4)	1
H271	May cause fire or explosion; strong oxidizer	Oxidizing liquids (chapter 2.13); Oxidizing solids (chapter 2.14)	1
H272	May intensify fire; oxidizer	Oxidizing liquids (chapter 2.13); Oxidizing solids (chapter 2.14)	2, 3
H280	Contains gas under pressure; may explode if heated	Gases under pressure (chapter 2.5)	Compressed gas Liquefied gas Dissolved gas
H281	Contains refrigerated gas; may cause cryogenic burns or injury	Gases under pressure (chapter 2.5)	Refrigerated liquefied gas
H290	May be corrosive to metals	Corrosive to metals (chapter 2.16)	1

Table A3.1.2: Hazard statement codes for health hazards

Code (1)	Health hazard statements (2)	Hazard class (GHS chapter) (3)	Hazard category (4)
H300	Fatal if swallowed	Acute toxicity, oral (chapter 3.1)	1, 2
H301	Toxic if swallowed	Acute toxicity, oral (chapter 3.1)	3
H302	Harmful if swallowed	Acute toxicity, oral (chapter 3.1)	4
H303	May be harmful if swallowed	Acute toxicity, oral (chapter 3.1)	5
H304	May be fatal if swallowed and enters airways	Aspiration hazard (chapter 3.10)	1
H305	May be harmful if swallowed and enters airways	Aspiration hazard (chapter 3.10)	2
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H310	Fatal in contact with skin	Acute toxicity, dermal (chapter 3.1)	1, 2
H311	Toxic in contact with skin	Acute toxicity, dermal (chapter 3.1)	3
H312	Harmful in contact with skin	Acute toxicity, dermal (chapter 3.1)	4
H313	May be harmful in contact with skin	Acute toxicity, dermal (chapter 3.1)	5
H314	Causes severe skin burns and eye damage	Skin corrosion/irritation (chapter 3.2)	1A, 1B, 1C
H315	Causes skin irritation	Skin corrosion/irritation (chapter 3.2)	2
H316	Causes mild skin irritation	Skin corrosion/irritation (chapter 3.2)	3
H317	May cause an allergic skin reaction	Sensitisation, skin (chapter 3.4)	1, 1A, 1B
H318	Causes serious eye damage	Serious eye damage/eye irritation (chapter 3.3)	1
H319	Causes serious eye irritation	Serious eye damage/eye irritation (chapter 3.3)	2A
H320	Causes eye irritation	Serious eye damage/eye irritation (chapter 3.3)	2B
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H330	Fatal if inhaled	Acute toxicity, inhalation (chapter 3.1)	1, 2
H331	Toxic if inhaled	Acute toxicity, inhalation (chapter 3.1)	3
H332	Harmful if inhaled	Acute toxicity, inhalation (chapter 3.1)	4
H333	May be harmful if inhaled	Acute toxicity, inhalation (chapter 3.1)	5
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled	Sensitisation, respiratory (chapter 3.4)	1, 1A, 1B
H335	May cause respiratory irritation	Specific target organ toxicity, single exposure; Respiratory tract irritation (chapter 3.8);	3
H336	May cause drowsiness or dizziness	Specific target organ toxicity, single exposure; Narcotic effects (chapter 3.8)	3
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H340	May cause genetic defects (<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Germ cell mutagenicity (chapter 3.5)	1A, 1B
H341	Suspected of causing genetic defects (<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Germ cell mutagenicity (chapter 3.5)	2
H350	May cause cancer (<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Carcinogenicity (chapter 3.6)	1A, 1B

Code (1)	Health hazard statements (2)	Hazard class (GHS chapter) (3)	Hazard category (4)
H351	Suspected of causing cancer (<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Carcinogenicity (chapter 3.6)	2
H360	May damage fertility or the unborn child (<i>state specific effect if known</i>)(<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Reproductive toxicity (chapter 3.7)	1A, 1B
H361	Suspected of damaging fertility or the unborn child (<i>state specific effect if known</i>)(<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Reproductive toxicity (chapter 3.7)	2
H362	May cause harm to breast-fed children	Reproductive toxicity, effects on or via lactation (chapter 3.7)	Additional category
H370	Causes damage to organs (<i>or state all organs affected, if known</i>) (<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Specific target organ toxicity, single exposure (chapter 3.8)	1
H371	May cause damage to organs (<i>or state all organs affected, if known</i>)(<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Specific target organ toxicity, single exposure (chapter 3.8)	2
H372	Causes damage to organs (<i>state all organs affected, if known</i>) through prolonged or repeated exposure (<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Specific target organ toxicity, repeated exposure (chapter 3.9)	1
H373	May cause damage to organs (<i>state all organs affected, if known</i>) through prolonged or repeated exposure (<i>state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard</i>)	Specific target organ toxicity, repeated exposure (chapter 3.9)	2
H300 + H310	Fatal if swallowed or in contact with skin	Acute toxicity, oral (chapter 3.1) and acute toxicity dermal (chapter 3.1)	1, 2
H300 + H330	Fatal if swallowed or if inhaled	Acute toxicity, oral (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	1, 2
H310 + H330	Fatal in contact with skin or if inhaled	Acute toxicity, dermal (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	1, 2
H300 + H310 + H330	Fatal if swallowed, in contact with skin or if inhaled	Acute toxicity, oral (chapter 3.1), acute toxicity, dermal (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	1, 2
H301 + H311	Toxic if swallowed or in contact with skin	Acute toxicity, oral (chapter 3.1) and acute toxicity dermal (chapter 3.1)	3

Code (1)	Health hazard statements (2)	Hazard class (GHS chapter) (3)	Hazard category (4)
H301 + H331	Toxic if swallowed or if inhaled	Acute toxicity, oral (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	3
H311 + H331	Toxic in contact with skin or if inhaled	Acute toxicity, dermal (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	3
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled	Acute toxicity, oral (chapter 3.1), acute toxicity, dermal (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	3
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H302 + H312	Harmful if swallowed or in contact with skin	Acute toxicity, oral (chapter 3.1) and acute toxicity dermal (chapter 3.1)	4
H302 + H332	Harmful if swallowed or if inhaled	Acute toxicity, oral (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	4
H312 + H332	Harmful in contact with skin or if inhaled	Acute toxicity, dermal (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	4
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled	Acute toxicity, oral (chapter 3.1), acute toxicity, dermal (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	4
H303 + H313	May be harmful if swallowed or in contact with skin	Acute toxicity, oral (chapter 3.1) and acute toxicity dermal (chapter 3.1)	5
H303 + H333	May be harmful if swallowed or if inhaled	Acute toxicity, oral (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	5
H313 + H333	May be harmful in contact with skin or if inhaled	Acute toxicity, dermal (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	5
H303 + H313 + H333	May be harmful if swallowed, in contact with skin or if inhaled	Acute toxicity, oral (chapter 3.1), acute toxicity, dermal (chapter 3.1) and acute toxicity, inhalation (chapter 3.1)	5
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H315 + H320	Causes skin and eye irritation	Skin corrosion/irritation (chapter 3.2) and serious eye damage/eye irritation (chapter 3.3)	2 (skin)/2B (eye)

Table A3.1.3: Hazard statement codes for environmental hazards

Code (1)	Environmental hazard statements (2)	Hazard class (GHS chapter) (3)	Hazard category (4)
H400	Very toxic to aquatic life	Hazardous to the aquatic environment, acute hazard (chapter 4.1)	1
H401	Toxic to aquatic life	Hazardous to the aquatic environment, acute hazard (chapter 4.1)	2
H402	Harmful to aquatic life	Hazardous to the aquatic environment, acute hazard (chapter 4.1)	3
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H410	Very toxic to aquatic life with long lasting effects	Hazardous to the aquatic environment, long-term hazard (chapter 4.1)	1
H411	Toxic to aquatic life with long lasting effects	Hazardous to the aquatic environment, long-term hazard (chapter 4.1)	2
H412	Harmful to aquatic life with long lasting effects	Hazardous to the aquatic environment, long-term hazard (chapter 4.1)	3
H413	May cause long lasting harmful effects to aquatic life	Hazardous to the aquatic environment, long-term hazard (chapter 4.1)	4
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H420	Harms public health and the environment by destroying ozone in the upper atmosphere	Hazardous to the ozone layer (chapter 4.2)	1

Annex 3

Section 2

CODIFICATION OF PRECAUTIONARY STATEMENTS

A3.2.1 Introduction

A3.2.1.1 A *precautionary statement* is a phrase (and/or pictogram) which describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposures to a hazardous product, or improper storage or handling of a hazardous product (see 1.4.10.5.2 (c)).

A3.2.1.2 For the purposes of the GHS, there are five types of precautionary statements: **general, prevention, response** (in case of accidental spillage or exposure, emergency response and first-aid), **storage** and **disposal**. For guidance on the use of GHS precautionary statements, including advice on the selection of the appropriate statements for each GHS hazard class and category, see section 3 to this annex.

A3.2.1.3 This section contains the recommended codes for each of the precautionary statement included in this annex.

A3.2.2 Codification of precautionary statements

A3.2.2.1 Precautionary statements are assigned a unique alphanumeric code which consists of one letter and three numbers as follows:

- (a) a letter “P” (for “precautionary statement”)
- (b) one number designating the type of precautionary statement as follows:
 - “1” for general precautionary statements;
 - “2” for prevention precautionary statements;
 - “3” for response precautionary statements;
 - “4” for storage precautionary statements;
 - “5” for disposal precautionary statements;
- (c) two numbers (corresponding to the sequential numbering of precautionary statements)

A3.2.2.2 The precautionary statement codes are intended to be used for reference purposes. They are not part of the precautionary statement text and should not be used to replace it.

A3.2.2.3 The codes to be used for designating precautionary statements are listed, in numerical order, in Table A3.2.1 for general precautionary statements, Table A3.2.2 for prevention precautionary statements, Table A3.2.3 for response precautionary statements, Table A3.2.4 for storage precautionary statements and Table A3.2.5 for disposal precautionary statements.

A3.2.3 Structure of the precautionary statement codification tables

A3.2.3.1 Each table is divided into 5 columns containing the following information:

- Column (1) The precautionary statement code;
- Column (2) The precautionary statement text;
- Column (3) The hazard class and the route of exposure, where relevant, for which the use of a precautionary statement is recommended together with a reference to the chapter of the GHS where information about the hazard class may be found.

- Column (4) The hazard category or categories within a hazard class for which the use of a precautionary statement is applicable.
- Column (5) Where applicable, conditions relating to the use of a precautionary statement;

A3.2.3.2 The tables show the **core part of the precautionary statements in bold print** in column (2). This is the text, except as otherwise specified, that should appear on the label. Derogations from the recommended labelling statements are at the discretion of competent authorities.

A3.2.3.3 When a forward slash or diagonal mark [/] appears in a precautionary statement text in column (2), it indicates that a choice has 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 in P280 “**Wear protective gloves/protective clothing/eye protection/face protection**” could read “**wear eye protection**” or “**wear eye and face protection**”.

A3.2.3.4 When three full stops [...] appears in a precautionary statement text in column (2), they indicate that all applicable conditions are not listed. For example in P241 “**Use explosion-proof [electrical/ventilating/lighting/...] equipment**”, the use of “...” indicates that other equipment may need to be specified. Further details of the information to be provided may be found in column (5). In such cases the manufacturer or supplier can choose, or the competent authorities may prescribe the other conditions to be specified.

A3.2.3.5 In cases where additional information is required or information has to be specified, this is indicated by a relevant entry in column (5) in plain text.

A3.2.3.6 When *text in italics* is used in column (5), this indicates specific conditions applying to the use or allocation of the precautionary statement. This may relate to conditions attaching to either the general use of a precautionary statement or its use for a particular hazard class and/or hazard category. For example, for P241 “**Use explosion-proof [electrical/ventilating/lighting/...]equipment**”, only applies for flammable solids “*if dust clouds can occur*”.

A3.2.3.7 Where square brackets [...] appear around some text in a precautionary statement, this indicates that the text in square brackets is not appropriate in every case and should be used only in certain circumstances. In these cases, conditions for use explaining when the text should be used are given in column (5). For example, P284 states: “**[In case of inadequate ventilation] wear respiratory protection.**” This statement is given with the condition for use “*– 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*”. The application of the condition for use should be interpreted as follows: If additional information is provided with the chemical explaining what type of ventilation would be adequate for safe use, the text in square brackets may be used. In this case, the statement would read: “**In case of inadequate ventilation wear respiratory protection.**” However, if the chemical is supplied without such information, the text in square brackets should not be used, and the precautionary statement should read: “**Wear respiratory protection.**”

A3.2.3.8 To facilitate translation into the languages of users, precautionary statements have been broken down into individual sentences or parts of sentences in the tables in this section. In a number of instances the text that appears on a GHS label requires that these be added back together. This is indicated in this annex by codes conjoined with a plus sign “+”. For example P305 + P351 + P338 indicates that the text to appear on the label is “**IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing**”. These additive precautionary statements can also be found at the end of each of the precautionary statement tables in this section. Translation of only the single precautionary statements is required, as this will enable the compilation of the additive precautionary statements.

Table A3.2.1: Codification of general precautionary statements

Code (1)	General precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P101	If medical advice is needed, have product container or label at hand.	as appropriate		Consumer products
P102	Keep out of reach of children.	as appropriate		Consumer products
P103	Read label before use.	as appropriate		Consumer products

Table A3.2.2: Codification of prevention precautionary statements

Code (1)	Prevention precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P201	Obtain special instructions before use.	Explosives (chapter 2.1)	Unstable explosive	
		Germ cell mutagenicity (chapter 3.5)	1A, 1B, 2	
		Carcinogenicity (chapter 3.6)	1A, 1B, 2	
		Reproductive toxicity (chapter 3.7)	1A, 1B, 2	
		Reproductive toxicity, effects on or via lactation (chapter 3.7)	Additional category	
P202	Do not handle until all safety precautions have been read and understood.	Flammable gases (including chemically unstable gases) (chapter 2.2)	A, B (chemically unstable gases)	
		Germ cell mutagenicity (chapter 3.5)	1A, 1B, 2	
		Carcinogenicity (chapter 3.6)	1A, 1B, 2	
		Reproductive toxicity (chapter 3.7)	1A, 1B, 2	

Code (1)	Prevention precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.	Explosives (chapter 2.1)	Divisions 1.1, 1.2, 1.3, 1.4, 1.5	
		Flammable gases (chapter 2.2)	1, 2	
		Aerosols (chapter 2.3)	1, 2, 3	
		Flammable liquids (chapter 2.6)	1, 2, 3, 4	
		Flammable solids (chapter 2.7)	1, 2	
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	
		Pyrophoric liquids (chapter 2.9)	1	
		Pyrophoric solids (chapter 2.10)	1	
		Oxidizing liquids (chapter 2.13)	1, 2, 3	
		Oxidizing solids (chapter 2.14)	Types A, B, C, D, E, F	
		Organic peroxides (chapter 2.15)	1, 2, 3	
P211	Do not spray on an open flame or other ignition source.	Aerosols (chapter 2.3)	1, 2	
P220	Keep away from clothing and other combustible materials.	Oxidizing gases (chapter 2.4)	1	
		Oxidizing liquids (chapter 2.13)	1, 2, 3	
		Oxidizing solids (chapter 2.14)	1, 2, 3	
P222	Do not allow contact with air.	Pyrophoric liquids (chapter 2.9)	1	– if emphasis of the hazard statement is deemed necessary.
		Pyrophoric solids (chapter 2.10)	1	
P223	Do not allow contact with water.	Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2	– if emphasis of the hazard statement is deemed necessary.
P230	Keep wetted with ...	Explosives (chapter 2.1)	Divisions 1.1, 1.2, 1.3, 1.5	– 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.

Code (1)	Prevention precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P231	Handle and store contents under inert gas/...	Pyrophoric liquids (chapter 2.9)	1	...Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if "inert gas" is not appropriate.
		Pyrophoric solids (chapter 2.10)	1	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3	– 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.
P232	Protect from moisture.	Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3	
P233	Keep container tightly closed.	Flammable liquids (chapter 2.6)	1, 2, 3	– if the liquid is volatile and may generate an explosive atmosphere.
		Pyrophoric liquids (chapter 2.9)	1	
		Pyrophoric solids (chapter 2.10)	1	
		Acute toxicity, inhalation (chapter 3.1)	1, 2, 3	– if the chemical is volatile and may generate a hazardous atmosphere.
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	
P234	Keep only in original packaging.	Explosives (chapter 2.1)	Divisions 1.1, 1.2, 1.3, 1.4, 1.5	
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	
		Corrosive to metals (chapter 2.16)	1	
P235	Keep cool.	Flammable liquids (chapter 2.6)	1, 2, 3	– for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere.
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	– may be omitted if P411 is given on the label.
		Self-heating substances and mixtures (chapter 2.11)	1, 2	– may be omitted if P413 is given on the label.
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	– may be omitted if P411 is given on the label.

Code (1)	Prevention precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P240	Ground and bond container and receiving equipment.	Explosives (chapter 2.1)	Divisions 1.1, 1.2, 1.3, 1.4, 1.5	– if the explosive is electrostatically sensitive.
		Flammable liquids (chapter 2.6)	1, 2, 3	– if the liquid is volatile and may generate an explosive atmosphere.
		Flammable solids (chapter 2.7)	1, 2	– if the solid is electrostatically sensitive.
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	– if electrostatically sensitive and able to generate an explosive atmosphere.
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	– if electrostatically sensitive and able to generate an explosive atmosphere.
P241	Use explosion-proof [electrical/ventilating/lighting/...] equipment.	Flammable liquids (chapter 2.6)	1, 2, 3	– 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.
		Flammable solids (chapter 2.7)	1, 2	– 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	Use non-sparking tools.	Flammable liquids (chapter 2.6)	1, 2, 3	– 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	Take action to prevent static discharges.	Flammable liquids (chapter 2.6)	1, 2, 3	– if the liquid is volatile and may generate an explosive atmosphere. – may be omitted where local or national legislation introduces more specific provisions.
P244	Keep valves and fittings free from oil and grease.	Oxidizing gases (chapter 2.4)	1	

Code (1)	Prevention precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P250	Do not subject to grinding/shock/friction/....	Explosives (chapter 2.1)	Unstable explosives and divisions 1.1, 1.2, 1.3, 1.4, 1.5	– <i>if the explosive is mechanically sensitive</i> ...Manufacturer/supplier or the competent authority to specify applicable rough handling.
P251	Do not pierce or burn, even after use.	Aerosols (chapter 2.3)	1, 2, 3	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.	Acute toxicity – inhalation (chapter 3.1)	1, 2	Manufacturer/supplier or the competent authority to specify applicable conditions.
		Specific target organ toxicity, single exposure (chapter 3.8)	1, 2	
		Specific target organ toxicity, repeated exposure (chapter 3.9)	1, 2	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	– <i>specify do not breathe dusts or mists</i> – <i>if inhalable particles of dusts or mists may occur during use.</i>
		Reproductive toxicity – effects on or via lactation (chapter 3.7)	Additional category	
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.	Acute toxicity – inhalation (chapter 3.1)	3, 4	– <i>may be omitted if P260 is given on the label.</i> Manufacturer/supplier or the competent authority to specify applicable conditions.
		Respiratory sensitization (chapter 3.4)	1, 1A, 1B	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	
P262	Do not get in eyes, on skin, or on clothing.	Acute toxicity – dermal (chapter 3.1)	1, 2	
P263	Avoid contact during pregnancy and while nursing.	Reproductive toxicity – effects on or via lactation (chapter 3.7)	Additional category	
P264	Wash ... thoroughly after handling.	Acute toxicity – oral (chapter 3.1)	1, 2, 3, 4	...Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling.
		Acute toxicity – dermal (chapter 3.1)	1, 2	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Skin irritation (chapter 3.2)	2	
		Eye irritation (chapter 3.3)	2A, 2B	...Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling.
		Reproductive toxicity – effects on or via lactation (chapter 3.7)	Additional category	
		Specific target organ toxicity, single exposure (chapter 3.8)	1, 2	
		Specific target organ toxicity, repeated exposure (chapter 3.9)	1	

Code (1)	Prevention precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P270	Do not eat, drink or smoke when using this product.	Acute toxicity – oral (chapter 3.1)	1, 2, 3, 4	
		Acute toxicity – dermal (chapter 3.1)	1, 2	
		Reproductive toxicity – effects on or via lactation (chapter 3.7)	Additional category	
		Specific target organ toxicity, single exposure (chapter 3.8)	1, 2	
		Specific target organ toxicity, repeated exposure (chapter 3.9)	1	
P271	Use only outdoors or in a well-ventilated area.	Acute toxicity – inhalation (chapter 3.1)	1, 2, 3, 4	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	
P272	Contaminated work clothing should not be allowed out of the workplace.	Skin sensitization (chapter 3.4)	1, 1A, 1B	
P273	Avoid release to the environment.	Hazardous to the aquatic environment, acute hazard (chapter 4.1)	1, 2, 3	<i>– if this is not the intended use.</i>
		Hazardous to the aquatic environment, long-term hazard (chapter 4.1)	1, 2, 3, 4	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	Explosives (chapter 2.1)	Unstable explosives and divisions 1.1, 1.2, 1.3, 1.4, 1.5	Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.
		Flammable liquids (chapter 2.6)	1, 2, 3, 4	Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.
		Flammable solids (chapter 2.7)	1, 2	
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	
		Pyrophoric liquids (chapter 2.9)	1	
		Pyrophoric solids (chapter 2.10)	1	
		Self-heating substances and mixtures (chapter 2.11)	1, 2	
Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3			

Code (1)	Prevention precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P280 <i>(cont'd)</i>	Wear protective gloves/protective clothing/eye protection/face protection.	Oxidizing liquids (chapter 2.13)	1, 2, 3	Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.
		Oxidizing solids (chapter 2.14)	1, 2, 3	
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	
		Acute toxicity – dermal (chapter 3.1)	1, 2, 3, 4	– <i>Specify protective gloves/clothing.</i> Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	– <i>Specify protective gloves/clothing and eye/face protection.</i> Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.
		Skin irritation (chapter 3.2)	2	– <i>Specify protective gloves.</i>
		Skin sensitization (chapter 3.4)	1, 1A, 1B	Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.
		Severe eye damage (chapter 3.3)	1	– <i>Specify eye/face protection.</i>
		Eye irritation (chapter 3.3)	2A	Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.
		Germ cell mutagenicity (chapter 3.5)	1A, 1B, 2	Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.
		Carcinogenicity (chapter 3.6)	1A, 1B, 2	
Reproductive toxicity (chapter 3.7)	1A, 1B, 2			
P282	Wear cold insulating gloves and either face shield or eye protection.	Gases under pressure (chapter 2.5)	Refrigerated liquefied gas	
P283	Wear fire resistant or flame retardant clothing.	Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
P284	[In case of inadequate ventilation] wear respiratory protection.	Acute toxicity, inhalation (chapter 3.1)	1, 2	– <i>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.</i> Manufacturer/supplier or the competent authority to specify equipment.
		Respiratory sensitization (chapter 3.4)	1, 1A, 1B	

Code (1)	Prevention precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P231 + P232	Handle and store contents under inert gas/... Protect from moisture.	Pyrophoric liquids (chapter 2.9)	1	...Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if “inert gas” is not appropriate.
		Pyrophoric solids (chapter 2.10)	1	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3	– <i>if the substance or mixture reacts readily with moisture in air.</i> ...Manufacturer/supplier or the competent authority to specify appropriate liquid or gas if “inert gas” is not appropriate.

Table A3.2.3: Codification of response precautionary statements

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P301	IF SWALLOWED:	Acute toxicity, oral (chapter 3.1)	1, 2, 3, 4	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Aspiration hazard (chapter 3.10)	1, 2	
P302	IF ON SKIN:	Pyrophoric liquids (chapter 2.9)	1	
		Pyrophoric solids (chapter 2.10)	1	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2	
		Acute toxicity, dermal (chapter 3.1)	1, 2, 3, 4	
		Skin irritation (chapter 3.2)	2	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
P303	IF ON SKIN (or hair):	Flammable liquids (chapter 2.6)	1, 2, 3	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
P304	IF INHALED:	Acute toxicity, inhalation (chapter 3.1)	1, 2, 3, 4, 5	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Respiratory sensitization (chapter 3.4)	1, 1A, 1B	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P305	IF IN EYES:	Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Severe eye damage (chapter 3.3)	1	
		Eye irritation (chapter 3.3)	2A, 2B	
P306	IF ON CLOTHING:	Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
P308	IF exposed or concerned:	Germ cell mutagenicity (chapter 3.5)	1A, 1B, 2	
		Carcinogenicity (chapter 3.6)	1A, 1B, 2	
		Reproductive toxicity (chapter 3.7)	1A, 1B, 2	
		Reproductive toxicity, effects on or via lactation (chapter 3.7)	Additional category	
		Specific target organ toxicity, single exposure (chapter 3.8)	1, 2	
P310	Immediately call a POISON CENTER/doctor/...	Acute toxicity, oral (chapter 3.1)	1, 2, 3	...Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
		Acute toxicity, dermal (chapter 3.1)	1, 2	
		Acute toxicity, inhalation (chapter 3.1)	1, 2	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Severe eye damage (chapter 3.3)	1	
		Aspiration hazard (chapter 3.10)	1, 2	
P311	Call a POISON CENTER/doctor/...	Acute toxicity, inhalation (chapter 3.1)	3	...Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
		Respiratory sensitization (chapter 3.4)	1, 1A, 1B	
		Specific target organ toxicity, single exposure (chapter 3.8)	1, 2	
P312	Call a POISON CENTER/doctor/...if you feel unwell.	Acute toxicity, oral (chapter 3.1)	4	...Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
		Acute toxicity, oral (chapter 3.1)	5	
		Acute toxicity, dermal (chapter 3.1)	3, 4, 5	
		Acute toxicity, inhalation (chapter 3.1)	4	
		Acute toxicity, inhalation (chapter 3.1)	5	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P313	Get medical advice/attention.	Skin irritation (chapter 3.2)	2, 3	Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.
		Eye irritation (chapter 3.3)	2A, 2B	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
		Germ cell mutagenicity (chapter 3.5)	1A, 1B, 2	
		Carcinogenicity (chapter 3.6)	1A, 1B, 2	
		Reproductive toxicity (chapter 3.7)	1A, 1B, 2	
		Reproductive toxicity, effects on or via lactation (chapter 3.7)	Additional category	
P314	Get medical advice/attention if you feel unwell.	Specific target organ toxicity, repeated exposure (chapter 3.9)	1, 2	Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.
P315	Get immediate medical advice/attention.	Gases under pressure (chapter 2.5)	Refrigerated liquefied gas	Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.
P320	Specific treatment is urgent (see ... on this label).	Acute toxicity, inhalation (chapter 3.1)	1, 2	– if immediate administration of antidote is required. ...Reference to supplemental first aid instruction.
P321	Specific treatment (see ... on this label).	Acute toxicity, oral (chapter 3.1)	1, 2, 3	– if immediate administration of antidote is required. ...Reference to supplemental first aid instruction.
		Acute toxicity, dermal (chapter 3.1)	1, 2, 3, 4	– if immediate measures such as specific cleansing agent is advised. ...Reference to supplemental first aid instruction.
		Acute toxicity, inhalation (chapter 3.1)	3	– if immediate specific measures are required. ...Reference to supplemental first aid instruction.
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	...Reference to supplemental first aid instruction. Manufacturer/supplier or the competent authority may specify a cleansing agent if appropriate.
		Skin irritation (chapter 3.2)	2	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
		Specific target organ toxicity, single exposure (chapter 3.8)	1	– if immediate measures are required. ...Reference to supplemental first aid instruction.
P330	Rinse mouth.	Acute toxicity, oral (chapter 3.1)	1, 2, 3, 4	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
P331	Do NOT induce vomiting.	Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Aspiration hazard (chapter 3.10)	1, 2	

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P332	If skin irritation occurs:	Skin irritation (chapter 3.2)	2, 3	
P333	If skin irritation or rash occurs:	Skin sensitization (chapter 3.4)	1, 1A, 1B	
P334	Immerse in cool water [or wrap in wet bandages].	Pyrophoric liquids (chapter 2.9)	1	<i>– text in square brackets to be used for pyrophoric liquids and solids.</i>
		Pyrophoric solids (chapter 2.10)	1	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2	<i>– use only “Immerse in cool water.” Text in square brackets should not be used.</i>
P335	Brush off loose particles from skin.	Pyrophoric solids (chapter 2.10)	1	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2	
P336	Thaw frosted parts with lukewarm water. Do not rub affected area.	Gases under pressure (chapter 2.5)	Refrigerated liquefied gas	
P337	If eye irritation persists:	Eye irritation (chapter 3.3)	2A, 2B	
P338	Remove contact lenses, if present and easy to do. Continue rinsing.	Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Severe eye damage (chapter 3.3)	1	
		Eye irritation (chapter 3.3)	2A, 2B	
P340	Remove person to fresh air and keep comfortable for breathing.	Acute toxicity, inhalation (chapter 3.1)	1, 2, 3, 4	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Respiratory sensitization (chapter 3.4)	1, 1A, 1B	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	
P342	If experiencing respiratory symptoms:	Respiratory sensitization (chapter 3.4)	1, 1A, 1B	
P351	Rinse cautiously with water for several minutes.	Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Severe eye damage (chapter 3.3)	1	
		Eye irritation (chapter 3.3)	2A, 2B	
P352	Wash with plenty of water/...	Acute toxicity, dermal (chapter 3.1)	1, 2, 3, 4	...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.
		Skin irritation (chapter 3.2)	2	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P353	Rinse skin with water [or shower].	Flammable liquids (chapter 2.6)	1, 2, 3	<i>– text in square brackets to be included where the manufacturer/supplier or the competent authority considers it appropriate for the specific chemical.</i>
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
P360	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.	Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
P361	Take off immediately all contaminated clothing.	Flammable liquids (chapter 2.6)	1, 2, 3	
		Acute toxicity, dermal (chapter 3.1)	1, 2, 3	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
P362	Take off contaminated clothing.	Acute toxicity, dermal (chapter 3.1)	4	
		Skin irritation (chapter 3.2)	2	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
P363	Wash contaminated clothing before reuse.	Skin corrosion (chapter 3.2)	1A, 1B, 1C	
P364	And wash it before reuse.	Acute toxicity, dermal (chapter 3.1)	1, 2, 3, 4	
		Skin irritation (chapter 3.2)	2	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
P370	In case of fire:	Explosives (chapter 2.1)	Unstable explosives and divisions 1.1, 1.2, 1.3, 1.4, 1.5	
		Oxidizing gases (chapter 2.4)	1	
		Flammable liquids (chapter 2.6)	1, 2, 3, 4	
		Flammable solids (chapter 2.7)	1, 2	
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	
		Pyrophoric liquids (chapter 2.9)	1	
		Pyrophoric solids (chapter 2.10)	1	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3	
		Oxidizing liquids (chapter 2.13)	1, 2, 3	
		Oxidizing solids (chapter 2.14)	1, 2, 3	
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P371	In case of major fire and large quantities:	Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
P372	Explosion risk.	Explosives (chapter 2.1)	Unstable explosives and Divisions 1.1, 1.2, 1.3, and 1.5	– <i>except for explosives of division 1.4 (compatibility group S) in transport packaging.</i>
			Division 1.4	
		Self-reactive substances and mixtures (chapter 2.8)	Type A	
		Organic peroxides (chapter 2.15)	Type A	
P373	DO NOT fight fire when fire reaches explosives.	Explosives (chapter 2.1)	Unstable explosives and Divisions 1.1, 1.2, 1.3, and 1.5	– <i>except for explosives of division 1.4 (compatibility group S) in transport packaging.</i>
			Division 1.4	
		Self-reactive substances and mixtures (chapter 2.8)	Type A	
		Organic peroxides (chapter 2.15)	Type A	
P375	Fight fire remotely due to the risk of explosion.	Explosives (chapter 2.1)	Division 1.4	– <i>for explosives of division 1.4 (compatibility group S) in transport packaging.</i>
		Self-reactive substances and mixtures (chapter 2.8)	Type B	
		Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
		Organic peroxides (chapter 2.15)	Type B	
P376	Stop leak if safe to do so.	Oxidizing gases (chapter 2.4)	1	
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.	Flammable gases (chapter 2.2)	1, 2	
P378	Use ... to extinguish.	Flammable liquids (chapter 2.6)	1, 2, 3, 4	– <i>if water increases risk.</i> ... Manufacturer/supplier or the competent authority to specify appropriate media.
		Flammable solids (chapter 2.7)	1, 2	
		Self-reactive substances and mixtures (chapter 2.8)	Types B, C, D, E, F	
		Pyrophoric liquids (chapter 2.9)	1	
		Pyrophoric solids (chapter 2.10)	1	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3	
		Oxidizing liquids (chapter 2.13)	1, 2, 3	
		Oxidizing solids (chapter 2.14)	1, 2, 3	
		Organic peroxides (chapter 2.15)	Types B, C, D, E, F	

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P380	Evacuate area.	Explosives (chapter 2.1)	Unstable explosives	
		Explosives (chapter 2.1)	Divisions 1.1, 1.2, 1.3, 1.4, 1.5	
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B	
		Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
		Organic peroxides (chapter 2.15)	Types A, B	
P381	In case of leakage, eliminate all ignition sources.	Flammable gases (chapter 2.2)	1, 2	
P390	Absorb spillage to prevent material-damage.	Corrosive to metals (chapter 2.16)	1	
P391	Collect spillage.	Hazardous to the aquatic environment, acute hazard (chapter 4.1)	1	
		Hazardous to the aquatic environment, long-term hazard (chapter 4.1)	1, 2	
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...	Acute toxicity, oral (chapter 3.1)	1, 2, 3	...Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
		Aspiration hazard (chapter 3.10)	1, 2	
P301 + P312	IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell.	Acute toxicity, oral (chapter 3.1)	4	...Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
P302 + P334	IF ON SKIN: Immerse in cool water [or wrap in wet bandages].	Pyrophoric liquids (chapter 2.9)	1	– <i>text in square brackets to be used for pyrophoric liquids.</i>
P302 + P352	IF ON SKIN: Wash with plenty of water/...	Acute toxicity, dermal (chapter 3.1)	1, 2, 3, 4	...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.
		Skin irritation (chapter 3.2)	2	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
P304 + P312	IF INHALED: Call a POISON CENTER/doctor/...if you feel unwell.	Acute toxicity, inhalation (chapter 3.1)	5	...Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.	Acute toxicity, inhalation (chapter 3.1)	1, 2, 3, 4	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Respiratory sensitization (chapter 3.4)	1, 1A, 1B	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	
P306 + P360	IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.	Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
P308 + P311	IF exposed or concerned: Call a POISON CENTER/doctor/...	Specific target organ toxicity, single exposure (chapter 3.8)	1, 2	...Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
P308 + P313	IF exposed or concerned: Get medical advice/attention.	Germ cell mutagenicity (chapter 3.5)	1A, 1B, 2	Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.
		Carcinogenicity (chapter 3.6)	1A, 1B, 2	
		Reproductive toxicity (chapter 3.7)	1A, 1B, 2	
		Reproductive toxicity, effects on or via lactation (chapter 3.7)	Additional category	
P332 + P313	If skin irritation occurs: Get medical advice/attention.	Skin irritation (chapter 3.2)	2, 3	– <i>may be omitted when P333+P313 is given on the label.</i> Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.	Skin sensitization (chapter 3.4)	1, 1A, 1B	Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.
P336 + P315	Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical advice/attention	Gases under pressure (chapter 2.5)	Refrigerated liquefied gas	Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.
P337 + P313	If eye irritation persists: Get medical advice/attention.	Eye irritation (chapter 3.3)	2A, 2B	Manufacturer/supplier or the competent authority to select medical advice or attention as appropriate.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...	Respiratory sensitization (chapter 3.4)	1, 1A, 1B	...Manufacturer/supplier or the competent authority to specify the appropriate source of emergency medical advice.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.	Acute toxicity, dermal (chapter 3.1)	1, 2, 3	

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P362 + P364	Take off contaminated clothing and wash it before reuse.	Acute toxicity, dermal (chapter 3.1)	4	
		Skin irritation (chapter 3.2)	2	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
P370 + P376	In case of fire: Stop leak if safe to do so.	Oxidizing gases (chapter 2.4)	1	
P370 + P378	In case of fire: Use ... to extinguish.	Flammable liquids (chapter 2.6)	1, 2, 3, 4	– <i>if water increases risk.</i> ... Manufacturer/supplier or the competent authority to specify appropriate media.
		Flammable solids (chapter 2.7)	1, 2	
		Self-reactive substances and mixtures (chapter 2.8)	Types C, D, E, F	
		Pyrophoric liquids (chapter 2.9)	1	
		Pyrophoric solids (chapter 2.10)	1	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3	
		Oxidizing liquids (chapter 2.13)	1, 2, 3	
		Oxidizing solids (chapter 2.14)	1, 2, 3	
		Organic peroxides (chapter 2.15)	Types C, D, E, F	
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	Skin corrosion (chapter 3.2)	1A, 1B, 1C	
P302 + P335 + P334	IF ON SKIN: Brush off loose particles from skin. Immerse in cool water [or wrap in wet bandages].	Pyrophoric solids (chapter 2.10)	1	– <i>text in square brackets to be used for pyrophoric solids</i>
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2	– <i>use only “Immerse in cool water.” Text in square brackets should not be used.</i>
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].	Flammable liquids (chapter 2.6)	1, 2, 3	– <i>text in square brackets to be included where the manufacturer/supplier or the competent authority considers it appropriate for the specific chemical.</i>
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	

Code (1)	Response precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Severe eye damage (chapter 3.3)	1	
		Eye irritation (chapter 3.3)	2A, 2B	
P370 + P380 + P375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.	Explosives (chapter 2.1)	Division 1.4	<i>– for explosives of division 1.4 (compatibility group S) in transport packaging</i>
		Organic peroxides (chapter 2.15)	Type B	
P371 + P380 + P375	In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.	Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
P370 + P372 + P380 + P373	In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.	Explosives (chapter 2.1)	Unstable explosives and divisions 1.1, 1.2, 1.3, 1.5	
			Division 1.4	<i>– except for explosives of division 1.4 (compatibility group S) in transport packaging.</i>
		Self-reactive substances and mixtures (chapter 2.8)	Type A	
		Organic peroxides (chapter 2.15)	Type A	
P370 + P380 + P375 [+ P378]	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. [Use...to extinguish].	Self-reactive substances and mixtures (chapter 2.8)	Type B	<i>– text in square brackets to be used if water increases risk. ... Manufacturer/supplier or the competent authority to specify appropriate media.</i>
		Organic peroxides (chapter 2.15)	Type B	

Table A3.2.4: Codification of storage precautionary statements

Code (1)	Storage precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)	
P401	Store in accordance with...	Explosives (chapter 2.1)	Unstable explosives and Divisions 1.1, 1.2, 1.3, 1.4, 1.5	... Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable.	
P402	Store in a dry place.	Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3		
P403	Store in a well-ventilated place.	Flammable gases (chapter 2.2)	1, 2		
		Oxidizing gases (chapter 2.4)	1		
		Gases under pressure (chapter 2.5)	Compressed gas Liquefied gas Refrigerated liquefied gas Dissolved gas		
		Flammable liquids (chapter 2.6)	1, 2, 3, 4	<i>– for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere.</i>	
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	<i>– except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.</i>	
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F		
		Acute toxicity, inhalation (chapter 3.1)	1, 2, 3	<i>– if the chemical is volatile and may generate a hazardous atmosphere.</i>	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3		
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3		
P404	Store in a closed container.	Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3		

Code (1)	Storage precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P405	Store locked up.	Acute toxicity, oral (chapter 3.1)	1, 2, 3	
		Acute toxicity, dermal (chapter 3.1)	1, 2, 3	
		Acute toxicity, inhalation (chapter 3.1)	1, 2, 3	
		Skin corrosion (chapter 3.2)	1A, 1B, 1C	
		Germ cell mutagenicity (chapter 3.5)	1A, 1B, 2	
		Carcinogenicity (chapter 3.6)	1A, 1B, 2	
		Reproductive toxicity (chapter 3.7)	1A, 1B, 2	
		Specific target organ toxicity, single exposure (chapter 3.8)	1, 2	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	
	Aspiration hazard (chapter 3.10)	1, 2		
P406	Store in a corrosion resistant/...container with a resistant inner liner.	Corrosive to metals (chapter 2.16)	1	<i>– may be omitted if P234 is given on the label ... Manufacturer/supplier or the competent authority to specify other compatible materials.</i>
P407	Maintain air gap between stacks or pallets.	Self-heating substances and mixtures (chapter 2.11)	1, 2	
P410	Protect from sunlight.	Aerosols (chapter 2.3)	1, 2, 3	<i>– 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.</i>
		Gases under pressure (chapter 2.5)	Compressed gas Liquefied gas Dissolved gas	
		Self-heating substances and mixtures (chapter 2.11)	1, 2	
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	

Code (1)	Storage precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P411	Store at temperatures not exceeding ...°C/...°F.	Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	– <i>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.</i> ...Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale.
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	
P412	Do not expose to temperatures exceeding 50 °C/122 °F.	Aerosols (chapter 2.3)	1, 2, 3	Manufacturer/supplier or the competent authority to use applicable temperature scale.
P413	Store bulk masses greater than ... kg/...lbs at temperatures not exceeding ...°C/...°F.	Self-heating substances and mixtures (chapter 2.11)	1, 2	...Manufacturer/supplier or the competent authority to specify mass and temperature using applicable scale.
P420	Store separately.	Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	
		Self-heating substances and mixtures (chapter 2.11)	1, 2	
		Oxidizing liquids (chapter 2.13)	1	
		Oxidizing solids (chapter 2.14)	1	
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	
P402 + P404	Store in a dry place. Store in a closed container.	Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3	
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.	Acute toxicity, inhalation (chapter 3.1)	1, 2, 3	– <i>if the chemical is volatile and may generate a hazardous atmosphere.</i>
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	
P403 + P235	Store in a well-ventilated place. Keep cool.	Flammable liquids (chapter 2.6)	1, 2, 3	– <i>for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere.</i>

Code (1)	Storage precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P410 + P403	Protect from sunlight. Store in a well-ventilated place.	Gases under pressure (chapter 2.5)	Compressed gas Liquefied gas Dissolved gas	<i>– 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.</i>
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.	Aerosols (chapter 2.3)	1, 2, 3	Manufacturer/supplier or the competent authority to use applicable temperature scale.

Table A3.2.5: Codification of disposal precautionary statements

Code (1)	Disposal precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
P501	Dispose of contents/container to ...	Explosives (chapter 2.1)	Unstable explosives and Divisions 1.1, 1.2, 1.3, 1.4, 1.5	... in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.
		Flammable liquids (chapter 2.6)	1, 2, 3, 4	
		Self-reactive substances and mixtures (chapter 2.8)	Types A, B, C, D, E, F	
		Substances and mixtures which, in contact with water, emit flammable gases (chapter 2.12)	1, 2, 3	
		Oxidizing liquids (chapter 2.13)	1, 2, 3	
		Oxidizing solids (chapter 2.14)	1, 2, 3	
		Organic peroxides (chapter 2.15)	Types A, B, C, D, E, F	
		Acute toxicity, oral (chapter 3.1)	1, 2, 3, 4	
		Acute toxicity, dermal (chapter 3.1)	1, 2, 3, 4	
		Acute toxicity, inhalation (chapter 3.1)	1, 2	

Code (1)	Disposal precautionary statements (2)	Hazard class (3)	Hazard category (4)	Conditions for use (5)
<i>P501</i> <i>(cont'd)</i>	Dispose of contents/container to ...	Skin corrosion (chapter 3.2)	1A, 1B, 1C	... in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier or the competent authority to specify whether disposal requirements apply to contents, container or both.
		Respiratory sensitization (chapter 3.4)	1, 1A, 1B	
		Skin sensitization (chapter 3.4)	1, 1A, 1B	
		Germ cell mutagenicity (chapter 3.5)	1A, 1B, 2	
		Carcinogenicity (chapter 3.6)	1A, 1B, 2	
		Reproductive toxicity (chapter 3.7)	1A, 1B, 2	
		Specific target organ toxicity, single exposure (chapter 3.8)	1, 2	
		Specific target organ toxicity, single exposure; respiratory tract irritation (chapter 3.8)	3	
		Specific target organ toxicity, single exposure; narcotic effects (chapter 3.8)	3	
		Specific target organ toxicity, repeated exposure (chapter 3.9)	1, 2	
		Aspiration hazard (chapter 3.10)	1, 2	
		Hazardous to the aquatic environment, acute hazard (chapter 4.1)	1, 2, 3	
		Hazardous to the aquatic environment, long-term hazard (chapter 4.1)	1, 2, 3, 4	
P502	Refer to manufacturer or supplier for information on recovery or recycling	Hazardous to the ozone layer (chapter 4.2)	1	

Annex 3

Section 3

USE OF PRECAUTIONARY STATEMENTS

A3.3.1 Introduction

A3.3.1.1 This section provides guidance on the use of precautionary statements consistent with the GHS, including advice on the selection of appropriate statements for each GHS hazard class and category.

A3.3.1.2 The starting point for assigning precautionary statements is the hazard classification of the chemical product. The system of classifying hazards in the GHS is based on the intrinsic properties of the chemicals involved (see 1.3.2.2.1). In some systems, however, labelling may not be required for chronic hazards on consumer product labels, if information shows that the respective risks can be excluded under conditions of normal handling, normal use or foreseeable misuse (see Annex 5). If certain hazard statements are not required then the corresponding precautionary statements are also not necessary (see A5.1.1).

A3.3.1.3 The guidance for assigning the phrases in this section has been developed to provide the essential minimum phrases linking precautionary statements with relevant GHS hazard classification criteria and type of hazard.

A3.3.1.4 Existing precautionary statements have been used to the maximum extent as the basis for the development of this section. These existing systems have included the IPCS International Chemical Safety Card (ICSC) Compilers Guide, the American National Standards (ANSI Z129.1), the EU classification and labelling directives, the Emergency Response Guidebook (ERG 2004), and the Pesticide Label Review Manual of the Environmental Protection Agency (EPA) of the United States of America.

A3.3.1.5 The goal of this section is to promote a more consistent use of precautionary statements. Their use will reinforce safe handling procedures and will enable the key concepts and approaches to be emphasized in training and education activities.

A3.3.1.6 This section should be seen as a living document and therefore subject to further refinement and development over time. The basic concepts of the matrix and the philosophy given below will remain.

A3.3.2 Allocation of precautionary statements

A3.3.2.1 This section sets out a matrix which guides the selection of appropriate precautionary statements. It includes elements for all categories of precautionary action. All specific elements relating to particular hazard classes should be used. General elements not linked in particular to a certain hazard class or category should also be used where relevant.

A3.3.2.2 To provide flexibility in the application of precautionary phrases, a combination of statements is encouraged to save label space and improve their readability. Combination of phrases can also be useful for different types of hazard where the precautionary behaviour is similar, e.g. **“Keep away from heat, sparks and open flame and store in a cool well ventilated place”**.

A3.3.2.3 Precautionary statements should appear on GHS labels along with the GHS hazard communication elements (pictograms, signal words and hazard statements). Additional supplemental information, such as directions for use, may also be provided at the discretion of the manufacturer/supplier and/or competent authority (see Chapter 1.2 and Chapter 1.4, para. 1.4.6.3). For some specific chemicals, supplementary first aid, treatment measures or specific antidotes or cleansing materials may be required. Poisons Centres and/or medical practitioners or specialist advice should be sought in such situations and included on labels.

A3.3.3 General precautionary measures

A3.3.3.1 General precautionary measures should be adopted for all substances and mixtures which are classified as hazardous to human health or the environment. To this end, the needs of and the information sources available to three groups of users or applicators should be taken into account: the general public, the commercial user and the industrial worker.

A3.3.3.2 The presumed observation of precautionary label information, specific safety guidelines, and the safety data sheet for each product before use are part of the labelling requirements and occupational health and safety procedures.

A3.3.3.3 In order to correctly implement precautionary measures concerning prevention, response, storage and disposal, it is also necessary to have information on the composition of products at hand, so that information shown on the container, label and safety data sheet can be taken into account when asking for further specialist advice.

A3.3.3.4 The following general precautionary statements on the GHS label are appropriate under the given conditions:

General public	GHS label, supplemental label information	P101	If medical advice is needed: Have product container or label at hand.
		P102	Keep out of reach of children.
		P103	Read label before use.
Industrial worker	GHS label, supplemental label information, Safety Data Sheet, workplace instructions		<i>none of the above</i>

A3.3.4 Structure of the precautionary statements matrix

A3.3.4.1 The tables making up the matrix show the core part of the precautionary statements in bold print. This is the text, except as otherwise specified, that should appear on the label. However, it is not necessary to insist on identical sets of words in all situations. Derogations from the recommended labelling statements are at the discretion of competent authorities. In all cases, clear plain language is essential to convey information on precautionary behaviour.

A3.3.4.2 Text in italics that starts with “– *if*” or “– *specify*” is intended to be an explanatory conditional note for the application of the precautionary statements and is not intended to appear on the label.

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 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 When three full stops [...] appear in a precautionary statement text, they indicate that all applicable conditions are not listed. In such cases the manufacturer or supplier can choose, or the competent authorities may prescribe the other conditions to be specified. For example, in the statement “**Use explosion-proof [electrical/ventilating/lighting/...]equipment**”, the use of “...” indicates that other equipment may need to be specified.

A3.3.4.5 In the majority of cases, the recommended precautionary statements are independent, e.g. the phrases for explosive hazard do not modify those related to certain health hazards and products that are classified for both hazard classes should bear appropriate precautionary statements for both.

A3.3.4.6 Where a substance or mixture is classified for a number of health hazards, generally the most stringent set of precautionary statements should be selected. This applies mainly for the preventive measures. With respect to phrases concerning “Response”, rapid action may be crucial. For example, if a chemical is carcinogenic and acutely toxic then the first aid measures for acute toxicity will take precedence over those for longer term effects. In addition, medical attention to delayed health effects may be required in cases of incidental exposure, even if not associated with immediate symptoms of intoxication.

A3.3.4.7 To protect people with different reading abilities, it might be useful to include both precautionary pictograms and precautionary statements in order to convey information in more than one way (see 1.4.4.1 (a)). It should be noted, however, that the protective effect of pictograms is limited and the examples in this annex do not cover all precautionary aspects to be addressed. While pictograms can be useful, they can be misinterpreted and are not a substitute for training.

A3.3.5 Matrix of precautionary statements by hazard class/category

A3.3.5.1 This matrix lists the recommended precautionary statements for each hazard class and hazard category of the GHS by type of precautionary statement (see A3.2.2.1) except for general precautionary statements. In each case the precautionary statement has the applicable code on the line immediately above.

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/... <i>– if the explosive is mechanically sensitive.</i> ...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 toin 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
Explosion 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
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P230 Keep wetted with... <i>– 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).</i> ... Manufacturer/supplier or the competent authority to specify appropriate material.</p> <p>P234 Keep only in original packaging.</p> <p>P240 Ground and bond container and receiving equipment. <i>– if the explosive is electrostatically sensitive.</i></p> <p>P250 Do not subject to grinding/shock/friction/... <i>– if the explosive is mechanically sensitive.</i> ... Manufacturer/supplier or the competent authority to specify applicable rough handling.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection. Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P370 + P372 + P380 + P373 In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.</p>	<p>P401 Store in accordance with... ... Manufacturer/supplier or the competent authority to specify local/regional/national/international regulations as applicable.</p>	<p>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.</p>

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

EXPLOSIVES
(CHAPTER 2.1)

Symbol <i>No symbol</i>

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

Precautionary statements			
Prevention	Response	Storage	Disposal
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P230 Keep wetted with... <i>– 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).</i> ... Manufacturer/supplier or the competent authority to specify appropriate material.</p> <p>P234 Keep only in original packaging.</p> <p>P240 Ground and bond container and receiving equipment. <i>– if the explosive is electrostatically sensitive.</i></p> <p>P250 Do not subject to grinding/shock/friction... <i>– if the explosive is mechanically sensitive.</i> ... Manufacturer/supplier or the competent authority to specify applicable rough handling.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection. Manufacturer/supplier or competent authority to specify the appropriate type of equipment.</p>	<p>P370 + P372 + P380 + P373 In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.</p>	<p>P401 Store in accordance with... ... Manufacturer/supplier or the competent authority to specify local/regional/ national/international regulations as applicable.</p>	<p>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.</p>

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 <i>No symbol</i>

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 <i>No additional symbol</i>
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Hazard category	Signal word	Hazard statement
A	<i>No additional signal word</i>	H230 May react explosively even in the absence of air
B	<i>No additional signal word</i>	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 °C/122 °F. Manufacturer/supplier or the competent authority to use applicable temperature scale.	

AEROSOLS
(CHAPTER 2.3)

Symbol <i>No symbol</i>

Hazard category

3

Signal word

Warning

Hazard statement

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 °C/122 °F. 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. <i>– 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.</i>	

**GASES UNDER PRESSURE
(CHAPTER 2.5)**

Symbol Gas cylinder

Hazard category Refrigerated liquefied gas	Signal word Warning	Hazard statement H281 Contains refrigerated gas; may cause cryogenic burns or injury
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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
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P233 Keep container tightly closed. – if the liquid is volatile and may generate an explosive atmosphere.</p> <p>P240 Ground and bond container and receiving equipment. – if the liquid is volatile and may generate an explosive atmosphere.</p> <p>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..</p> <p>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).</p> <p>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.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>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.</p> <p>P370 + P378 In case of fire: Use ... to extinguish. – if water increases risk. ... Manufacturer/supplier or the competent authority to specify appropriate media.</p>	<p>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.</p>	<p>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.</p>

FLAMMABLE LIQUIDS
(CHAPTER 2.6)

Symbol <i>No symbol</i>

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. <i>– if water increases risk.</i> ... Manufacturer/supplier or the competent authority to specify appropriate media.	P403 Store in a well-ventilated place. <i>– for flammable liquids Category 1 and other flammable liquids that are volatile and may generate an explosive atmosphere.</i>	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
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P240 Ground and bond container and receiving equipment. <i>– if the solid is electrostatically sensitive.</i></p> <p>P241 Use explosion-proof [electrical/ventilating/lighting/...]equipment. <i>– if dust clouds can occur.</i> <i>– text in square brackets may be used to specify specific electrical, ventilating, lighting or other equipment if necessary and as appropriate.</i> <i>– precautionary statement may be omitted where local or national legislation introduces more specific provisions.</i></p> <p>P280 Wear protective gloves/ protective clothing/eye protection/face protection Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P370 + P378 In case of fire: Use ... to extinguish <i>– if water increases risk.</i> ... Manufacturer/supplier or the competent authority to specify appropriate media.</p>		

**SELF-REACTIVE SUBSTANCES AND MIXTURES
(CHAPTER 2.8)**

Symbol
Explosion bomb



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

Precautionary statements			
Prevention	Response	Storage	Disposal
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P234 Keep only in original packaging.</p> <p>P235 Keep cool. <i>– may be omitted if P411 is given on the label.</i></p> <p>P240 Ground and bond container and receiving equipment. <i>– if electrostatically sensitive and able to generate an explosive atmosphere.</i></p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection. Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P370 + P372 + P380 + P373 In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.</p>	<p>P403 Store in a well-ventilated place. <i>– except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.</i></p> <p>P411 Store at temperatures not exceeding ...°C/...°F. <i>– 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.</i> ... Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale.</p> <p>P420 Store separately.</p>	<p>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.</p>

SELF-REACTIVE SUBSTANCES AND MIXTURES
(CHAPTER 2.8)

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
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P234 Keep only in original packaging.</p> <p>P235 Keep cool – may be omitted if P411 is given on the label.</p> <p>P240 Ground and bond container and receiving equipment. – if electrostatically sensitive and able to generate an explosive atmosphere.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection. Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>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.</p>	<p>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.</p> <p>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.</p> <p>P420 Store separately.</p>	<p>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.</p>

**SELF-REACTIVE SUBSTANCES 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
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P234 Keep only in original packaging.</p> <p>P235 Keep cool – <i>may be omitted if P411 is given on the label.</i></p> <p>P240 Ground and bond container and receiving equipment. – <i>if electrostatically sensitive and able to generate an explosive atmosphere.</i></p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection. Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P370 + P378 In case of fire: Use ... to extinguish – <i>if water increases risk.</i> ... Manufacturer/supplier or the competent authority to specify appropriate media.</p>	<p>P403 Store in a well-ventilated place. – <i>except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.</i></p> <p>P411 Store at temperatures not exceeding ...°C/...°F. – <i>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.</i> ...Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale.</p> <p>P420 Store separately.</p>	<p>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.</p>

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
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P222 Do not allow contact with air. <i>– if emphasis of the hazard statement is deemed necessary.</i></p> <p>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.</p> <p>P233 Keep container tightly closed.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection. Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P302 + P334 IF ON SKIN: Immerse in cool water or wrap in wet bandages.</p> <p>P370 + P378 In case of fire: Use ... to extinguish <i>– if water increases risk.</i> ...Manufacturer/supplier or the competent authority to specify appropriate media.</p>		

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
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P222 Do not allow contact with air. <i>– if emphasis of the hazard statement is deemed necessary.</i></p> <p>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.</p> <p>P233 Keep container tightly closed.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P302 + P335 + P334 IF ON SKIN: Brush off loose particles from skin. Immerse in cool water or wrap in wet bandages.</p> <p>P370 + P378 In case of fire: Use ... to extinguish <i>– if water increases risk.</i> ... Manufacturer/supplier or the competent authority to specify appropriate media.</p>		

**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. <i>– may be omitted if P413 is given on the label.</i> 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
<p>P223 Do not allow contact with water. – if emphasis of the hazard statement is deemed necessary.</p> <p>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.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection. Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P302 + P335 + P334 IF ON SKIN: Brush off loose particles from skin and immerse in cool water.</p> <p>P370 + P378 In case of fire: Use ... to extinguish – if water increases risk. ... Manufacturer/supplier or the competent authority to specify appropriate media.</p>	<p>P402 + P404 Store in a dry place. Store in a closed container.</p>	<p>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.</p>

**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. <i>– if the substance or mixture reacts readily with moisture in air.</i> ...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. <i>– if water increases risk.</i> ... 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. <i>– if water increases risk...</i> 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. – <i>if water increases risk.</i> ... 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. – <i>if water increases risk.</i> ... 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. <i>– if water increases risk.</i> ... 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

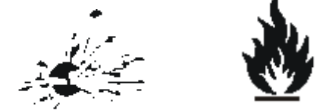
Hazard category	Signal word	Hazard statement
Type A	Danger	H240 Heating may cause an explosion



Precautionary statements			
Prevention	Response	Storage	Disposal
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P234 Keep only in original container.</p> <p>P235 Keep cool. <i>– may be omitted if P411 is given on the label.</i></p> <p>P240 Ground and bond container and receiving equipment. <i>– if electrostatically sensitive and able to generate an explosive atmosphere.</i></p> <p>P280 Wear protective gloves/ protective clothing/eye protection/face protection. Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P370 + P372 + P380 + P373 In case of fire: Explosion risk. Evacuate area. DO NOT fight fire when fire reaches explosives.</p>	<p>P403 Store in a well-ventilated place. <i>– except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.</i></p> <p>P410 Protect from sunlight.</p> <p>P411 Store at temperatures not exceeding ...°C/...°F. <i>– 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.</i> ... Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale</p> <p>P420 Store separately.</p>	<p>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.</p>

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
<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P234 Keep only in original packaging.</p> <p>P235 Keep cool. – <i>may be omitted if P411 is given on the label.</i></p> <p>P240 Ground and bond container and receiving equipment. – <i>if electrostatically sensitive and able to generate an explosive atmosphere.</i></p> <p>P280 Wear protective gloves/ protective clothing/eye protection/face protection. Manufacturer/supplier or the competent authority to specify the appropriate type of equipment.</p>	<p>P370 + P380 + P375 [+ P378] In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. [Use...to extinguish] – <i>text in square brackets to be used if water increases risk.</i> ...Manufacturer/supplier or the competent authority to specify appropriate media.</p>	<p>P403 Store in a well-ventilated place. – <i>except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.</i></p> <p>P410 Protect from sunlight.</p> <p>P411 Store at temperatures not exceeding ...°C/...°F. – <i>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.</i> ...Manufacturer/supplier or the competent authority to specify temperature using applicable temperature scale.</p> <p>P420 Store separately.</p>	<p>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.</p>

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. <i>– may be omitted if P411 is given on the label.</i> P240 Ground and bond container and receiving equipment. <i>– if electrostatically sensitive and able to generate an explosive atmosphere.</i> 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. <i>– if water increases risk.</i> ... Manufacturer/supplier or the competent authority to specify appropriate media.	P403 Store in a well-ventilated place. <i>– except for temperature controlled self-reactive substances and mixtures or organic peroxides because condensation and consequent freezing may take place.</i> P410 Protect from sunlight. P411 Store at temperatures not exceeding ...°C/...°F. <i>– 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....</i> 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.

CORROSIVE TO METALS
(CHAPTER 2.16)

Symbol Corrosion

Hazard category

1

Signal word

Warning

Hazard statement

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. <i>– may be omitted if P234 is given on the label</i> ... 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) – <i>if immediate administration of antidote is required.</i> ... 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) – <i>if immediate administration of antidote is required.</i> ... 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 <i>No symbol</i>

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) – <i>if immediate measures such as specific cleansing agent is advised.</i> ... 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) – <i>if immediate measures such as specific cleansing agent is advised.</i> ... 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 <i>No symbol</i>

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. <i>– 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.</i> 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) <i>– if immediate administration of antidote is required.</i> ... Reference to supplemental first aid instruction.	P403 + P233 Store in a well-ventilated place. Keep container tightly closed. <i>– if the chemical is volatile and may generate a hazardous atmosphere.</i> 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. <i>– may be omitted if P260 is given on the label</i> 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) <i>– if immediate specific measures are required.</i> ... Reference to supplemental first aid instruction.	P403 + P233 Store in a well-ventilated place. Keep container tightly closed. <i>– if the chemical is volatile and may generate a hazardous atmosphere.</i> 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. <i>– may be omitted if P260 is given on the label</i> 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 <i>No symbol</i>

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

Precautionary statements			
Prevention	Response	Storage	Disposal
P260 Do not breathe dusts or mists. <i>– if inhalable particles of dusts or mists may occur during use.</i> 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]. <i>– text in square brackets to be included where the manufacturer/supplier or the competent authority considers it appropriate for the specific chemical.</i> 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. <i>– may be omitted when P333+P313 appears on the label</i> 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 <i>No symbol</i>

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. <i>– may be omitted when P333+P313 appears on the label.</i> 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)**

<p>Symbol <i>No symbol</i></p>

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
<p>P261 Avoid breathing dust/fume/gas/mist/vapours/spray. – <i>may be omitted if P260 is given on the label</i> Manufacturer/supplier or the competent authority to specify applicable conditions.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection. – <i>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.</i> Manufacturer/supplier or the competent authority to specify equipment.</p>	<p>P304 + P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.</p> <p>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.</p>		<p>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.</p>

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
<p>P261 Avoid breathing dust/fume/gas/mist/vapours/spray. <i>– may be omitted if P260 is given on the label</i> Manufacturer/supplier or the competent authority to specify applicable conditions.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves. Manufacturer/supplier or the competent authority may further specify type of equipment where appropriate.</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>P362 + P364 Take off contaminated clothing and wash it before reuse.</p>		<p>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.</p>

**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 <i>No symbol</i>

Hazard category <i>(additional)</i>	Signal word <i>No signal word</i>	Hazard statement H362 May cause harm to breast-fed children
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Precautionary statements			
Prevention	Response	Storage	Disposal
P201 Obtain special instructions before use. P260 Do not breathe dusts or mists. <i>– if inhalable particles of dusts or mists may occur during use.</i> P263 Avoid contact during pregnancy and while nursing. P264 Wash ... thoroughly after handling. <i>...Manufacturer/supplier or the competent authority to specify parts of the body to be washed after handling.</i> 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 2	Signal word Warning	Hazard statement 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)
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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. <i>– may be omitted if P260 is given on the label.</i> 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. <i>– if the chemical is volatile and may generate a hazardous atmosphere.</i> 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	<p>H373 May cause damage to organs <...> through prolonged or repeated exposure <<...>></p> <p><...> <i>(state all organs affected, if known)</i></p> <p><<...>> <i>(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)</i></p>



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 – SHORT-TERM (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. <i>– if this is not the intended use.</i>	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 – SHORT-TERM (ACUTE) HAZARD
(CHAPTER 4.1)**

Symbol <i>No symbol</i>

Hazard category	Signal word	Hazard statement
2	<i>No signal word</i>	H401 Toxic to aquatic life
3	<i>No signal word</i>	H402 Harmful to aquatic life

Precautionary statements			
Prevention	Response	Storage	Disposal
P273 Avoid release to the environment. <i>– if this is not the intended use.</i>			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 (CHRONIC) 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	<i>No signal word</i>	H411 Toxic to aquatic life with long lasting effects



Precautionary statements			
Prevention	Response	Storage	Disposal
P273 Avoid release to the environment. <i>– if this is not the intended use.</i>	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 (CHRONIC) HAZARD
(CHAPTER 4.1)**


Symbol <i>No symbol</i>

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

Precautionary statements			
Prevention	Response	Storage	Disposal
P273 Avoid release to the environment. <i>– if this is not the intended use.</i>			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

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
GHS05		Corrosion
GHS06		Skull and crossbones
GHS07		Exclamation mark
GHS08		Health hazard
GHS09		Environment

Annex 3

Section 5

EXAMPLES OF PRECAUTIONARY PICTOGRAMS

A3.5.1 Precautionary pictograms

From European Union (Council Directive 92/58/EEC of 24 June 1992)



From South African Bureau of Standards (SABS 0265:1999)

