

Guidance on labelling and packaging in accordance with Regulation (EC) No 1272/2008

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Preamble

1 This document describes specific provisions for labelling and packaging of chemical
2 substances and mixtures under Titles III and IV of the Regulation (EC) No
3 1272/2008¹ (CLP Regulation or CLP). The aim of this document is to assist
4 manufacturers, importers, downstream users and distributors of substances and
5 mixtures in the effective application of the CLP Regulation.

6 This guidance includes relevant amendments from the 2nd, 4th and 5th Adaptation to
7 Technical Progress (ATP) to the CLP Regulation, as well as the changes brought
8 about by the ATP to CLP related to labelling and packaging of liquid laundry
9 detergents in a soluble packaging for single use (Regulation (EU) No 1297/2014).

10 All current ECHA guidance documents can be obtained via the website of ECHA
11 (<http://echa.europa.eu/support/guidance>).

¹ Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; OJ L 353 31.12.2008, p. 1 (<http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A02008R1272-20150601>)

1. Introduction

1.1 Who should read this document?

This document is relevant for suppliers of chemical substances and mixtures, namely for:

- manufacturers and importers of substances;
- importers of mixtures;
- downstream users of substances and mixtures, including formulators;
- distributors of substances and mixtures, including retailers.

All suppliers must ensure that their substances and mixtures are labelled and packaged in accordance with the provisions of the CLP Regulation or CLP) before they are placed on the EU market.

1.2 What is in this document?

This document provides guidance on the labelling and packaging requirements set out in the CLP Regulation. The guidance opens in section 2 with a general overview, including legal background and scope of the CLP Regulation. That section also includes information about timelines for classification, labelling, packaging and updating of CLP labels. The guidance continues in section 3 and 4 with an explanation of requirements of labelling and packaging and rules for the application of the CLP label elements. Section 5 provides the guidance on particular aspects of CLP hazard labelling (e.g. exemption from certain labelling and packaging requirements, interaction between CLP and transport labelling rules, labelling requirements for specific cases of unique packaging). Finally, sections 6 and 7 of the guidance provide practical examples illustrating different situations that may be encountered when designing labels.

In particular, this guidance aims to clarify:

- what aspects to consider when estimating **the label size** needed;
- what types of **supplemental information** are possible, and where to place this information on the label ([sub-section 4.8](#) of this guidance);
- the conditions for **small packaging exemptions**;
- the interaction between **CLP and the transport labelling rules**;
- the technical requirements for liquid laundry detergents in a soluble packaging for single use;
- how to select the most appropriate set of **precautionary statements** for the label;
- how to structure the information on the label for appropriate readability.

For specific information on application of the CLP criteria for physical, health and environmental hazards the reader is advised to consult *Guidance on the application of the CLP criteria*. For general information overview of basic features and procedures laid down in the CLP Regulation it might be useful to consult the *Introductory Guidance on the CLP Regulation*. Both above-mentioned guidance documents are available at <http://echa.europa.eu/web/guest/guidance-documents/guidance-on-clp>.

2. General overview

2.1 Legal background

CLP is the EU Regulation on classification, labelling and packaging of substances and mixtures. It is based on the United Nations Globally Harmonized System of Classification and Labelling of chemicals (UN GHS). CLP entered into force on 20 January 2009 in the European Union and is now legally binding also in the countries of the European Economic Area (EEA) (Norway, Iceland and Liechtenstein)². CLP has fully replaced the provisions of the Dangerous Substances Directive 67/548/EEC (DSD) and the Dangerous Preparations Directive 1999/45/EC (DPD) as of 1 June 2015 (see sub-section 2.3 of this guidance for the applicability of the transitional period). The CLP Regulation is directly applicable to suppliers in the EU who manufacture, import, use or distribute chemical substances and mixtures.

CLP includes several new aspects to the labelling and packaging of substances and mixtures. This guidance explains the labelling and packaging rules of CLP and illustrates with some examples how labels could be laid out.

In general, the CLP label must display the label elements which are taken over from UN GHS, i.e. the new pictograms, signal word, hazard and precautionary statements, to reflect the assigned classification of a substance or mixture. At the same time, CLP retains some of the labelling concepts of DSD and DPD, such as the small packaging exemptions. In order to accommodate certain hazard information not yet covered by the UN GHS, as well as further label elements which are required by other EU legislation, CLP introduces the concept of "supplemental information" for the label.

A substance or mixture classified as hazardous and contained in packaging must bear a hazard label in accordance with the rules in Title III of CLP (*Hazard communication in the form of labelling*).

Another key tool used for hazard communication is the safety data sheet (SDS). The required SDS format and content are defined in Article 31 and Annex II³ to Regulation (EC) No 1907/2006 (REACH). These have been adapted to align them with the UN GHS, as well as to be fully in line with the CLP Regulation.

For further information on the compilation of the SDS, please consult the *Guidance on the compilation of safety data sheets* (<http://echa.europa.eu/guidance-documents/guidance-on-reach>).

² The CLP Regulation was incorporated in the EEA Agreement by Decision of the EEA Joint Committee No 106/2012 of 15 June 2012 amending Annex II (Technical regulations, standards, testing and certification) to the EEA Agreement (OJ L 309, 8.11.2012, p. 6–6).

³ Annex II to REACH has been replaced by Commission Regulations No 453/2010 and No 2015/830, to align the requirements for safety data sheets with the rules for safety data sheets of the UN GHS, see http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html.

2.2 Scope of labelling and packaging under the CLP Regulation

In general, substances and mixtures that are placed on the market are supplied in packaging with the necessary labelling information. A substance or mixture has to be labelled according to the CLP rules where

- the substance or mixture is classified as hazardous;
- the mixture, even if not classified as hazardous, is addressed in Article 25(6) of CLP. In this case the supplemental label elements as set out in part 2 of Annex II must be indicated together with the product identifier, name and telephone number of the supplier.

In addition, an explosive article (i.e. an article containing one or more explosive substances or mixtures) which meets the criteria as described in 2.1 of Annex I to CLP must be labelled according to the CLP rules.

Substances and mixtures within the scope of Regulation (EC) No 1107/2009⁴ (Plant Protection Products Regulation or PPPR) or Regulation (EU) No 528/2012 (Biocidal Products Regulation or BPR) have to carry CLP labelling elements as appropriate; substances and mixtures within the scope of the PPPR also need to display the supplemental statement EUH401 (To avoid risks to human health and the environment, comply with the instructions for use), see CLP Article 25 (2). On the other hand, the labelling provisions of these acts remain fully applicable to any product within their scope, see Recital 47 of the CLP Regulation. For example, there are separate provisions for updating labels for such substances and mixtures in these acts, and their suppliers must apply these provisions instead of the CLP rules, see also CLP Article 30 (3). Another deviation from CLP is that different rules apply as to which information may be presented in the form of a leaflet as an alternative way to accommodate the required labelling information ([sub-section 5.3.1.1](#) of this guidance).

The CLP Regulation also includes exemptions from labelling and packaging requirements, for example for packagings that are so small, or in such a shape that it is impossible to meet the general rules for the application of labels ([sub-section 5.3.1](#) of this guidance). In addition, CLP allows suppliers to omit certain label elements ([sub-section 5.3.2](#) of this guidance).

Certain substances and mixtures may also be supplied to the general public without packaging, in which case a copy of the label elements is required to accompany the substance or mixture, for example on an invoice. Currently, this only applies to ready mixed cement and concrete in the wet state ([sub-section 5.3.2.4](#) of this guidance).

Finally, CLP defines derogations from the CLP labelling requirements for special cases and the conditions under which these derogations apply, for example transportable gas cylinders. In relation to the aforementioned cases, please consult Article 23 and section 1.3 of Annex I to CLP, as further guidance is not provided in this document.

⁴ Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market repeals the Council Directives 79/117/EEC and 91/414/EEC with effect from 14 June 2011. However, Article 80 of Regulation (EC) No 1107/2009 specifies that Directive 91/414/EEC must continue to apply with respect to active substances included in Annex I to that Directive for certain transitional periods.

2.3 Timelines for classification, labelling, packaging and updating of CLP hazard labels

The CLP Regulation was introduced gradually before its full application as of 1 June 2015. During this transitional period some of the rules of CLP and the previous legislation (DSD and DPD) were applicable in parallel to give companies time to migrate to the CLP rules. However, companies were allowed to apply CLP in full on a voluntary basis since its entry into force.

For substances, it was obligatory to classify, label and package according to the CLP Regulation since 1 December 2010. The same obligations now apply for mixtures since 1 June 2015.

Therefore, **from 1 June 2015 both substances and mixtures must be classified, labelled and packaged according to CLP only.** This classification must be provided in the SDS for substances and mixtures. There is no longer a requirement to provide either DSD classifications of substances themselves or of component substances in mixtures or the DPD classifications for mixtures in the SDS. Only the corresponding information according to CLP need be provided (see also *Guidance on the compilation of safety data sheets*).

Limited derogation for re-labelling and re-packaging

In the situation where a mixture was already classified, labelled and packaged in accordance with the DPD rules and placed on the market before 1 June 2015, the manufacturer, importer, downstream user or distributor may postpone its re-labelling and re-packaging to comply with the CLP rules until 1 June 2017. This means that the mixture can be sold further in the supply chain with the DPD label until 1 June 2017 (see Article 61 (4) of CLP). The mixtures prepared before 1 June 2015 and stored in a formulator's warehouse after 1 June 2015 can also benefit from this arrangement provided they are already labelled and packaged according to the DPD rules⁵. This concerns also mixtures that are either on the shelves of a warehouse or a shop or in the stocks of a manufacturer or importer⁶. There needs to be proof that the products were already packaged and labelled on 1 June 2015 for the transitional provision to apply. This could be done by providing evidence that the mixture had been manufactured ("physically existing"), had passed a manufacturer's quality control system (was "cleared for sale"), was labelled and was made available for a third party e.g. in the warehouse. This could also include e.g. an offer for sale through an advertisement on a website.

It should be noted that when a mixture is re-filled into another package on its way through the supply chain and the respective supplier (re-filler) changes the composition of the mixture in the course of his industrial and professional activity, he must classify the mixture according to the CLP requirements and no longer use the DPD labelling.

⁵ The derogation regarding safety data sheets is explained in the *Guidance on the compilation of safety data sheets* available at <http://echa.europa.eu/guidance-documents/guidance-on-reach>

⁶ Please note that imports are exempted from CLP while they fall within the scope of Article 1(2)(b). See also CLP FAQ ID=250 at <http://echa.europa.eu/support/qas-support/qas>.

In the case e.g. of re-filling without change of the composition, the re-filler will have the right to take over the classification and use the same label (in practice there will be physical re-labelling but with the same label or labelling information as the formulator's).

An overview of the relevant timelines for classification and labelling is provided in **Figure 1** below.

	Legislation	From 1 June 2015
Substances	Directive 67/548/EEC (DSD)	No longer applicable
	Regulation EC No 1272/2008 (CLP)	Classification, packaging and labelling required
Mixtures	Directive 1999/45/EC (DPD)	Not applicable (with the exception of the 2017 derogation)
	Regulation EC No 1272/2008 (CLP)	Classification required Labelling and packaging required unless the 2017 derogation applies

Figure 1: Timelines for classification and labelling in accordance with CLP and DSD/DPD.

Following any changes to the classification and labelling where the revised classification is more severe or where new supplemental label elements are required, CLP Article 30 requires a supplier to update this information on the label without undue delay, i.e. as soon as reasonably practicable.

Where labelling changes other than those described above are required (e.g. where the revised classification will be less severe or the contact details of the supplier have changed) the supplier has 18 months to update the label.

Where a new or updated harmonised classification arises from an Adaptation to Technical Progress (ATP) to the CLP Regulation, the ATP provides the date of applicability.

Further label changes to be implemented within 18 months would also include the update of labelling information for certain mixtures for which special rules for supplemental labelling in accordance with Part 2 of Annex II to CLP apply.

However, there are separate provisions for updating labels in the Biocidal Products Regulation (BPR) and the Plant Protection Products Regulation (PPPR) and suppliers of substances or mixtures within the scope of these acts must apply these provisions.

3. Requirements of labelling and packaging in accordance with the CLP Regulation

3.1 General labelling rules

General and specific rules regarding the content and application of a CLP label are set out in CLP Article 31.

CLP requires that the labels are firmly affixed to one or more surfaces of the immediate container of the substance or mixture and that they must be readable horizontally when the package is set down normally. The label elements themselves, in particular the hazard pictograms, must stand out clearly from the background. Furthermore, all label elements must be of such size and spacing as to be easily read. They must be clearly and indelibly marked. A physical label is not required when the label elements are shown clearly on the packaging itself.

3.2 Elements of the CLP hazard label

According to CLP Article 17, a substance and mixture classified as hazardous must bear a label including the following elements:

- Name, address and telephone number of the supplier(s);
- The nominal quantity of the substance or mixture in the package where this is being made available to the general public, unless this quantity is specified elsewhere on the package;
- Product identifiers;
- Hazard pictograms, where applicable;
- The relevant signal word, where applicable;
- Hazard statements, where applicable;
- Appropriate precautionary statements where applicable;
- A section for supplemental information, where applicable.

It should be noted that for particular label elements precedence rules apply. These rules are further explained in the sections below.

- CLP requires the label to be written in the official language or languages of the Member States where the substance or mixture is placed on the market, unless the Member State concerned provides otherwise⁷. Suppliers may accomplish this either by producing multi-language labels covering the official languages of several of the countries where the substance or mixture is supplied, or by producing separate labels for each country, each with the appropriate language or languages.

Suppliers may use more languages than those required on their labels if they wish, provided that the same details appear in all languages. However, this should not impact the legibility of the obligatory labelling information nor can it trigger exemptions from the labelling requirements, ([sub-section 5.3.1](#) of this guidance).

⁷ Please consult the table "Languages required for labels and safety data sheet" which is available on the ECHA website web at <http://echa.europa.eu/regulations/clp/labelling>.

3.3 Location of information on the CLP hazard label

CLP Article 32 provides some limited rules that define the location of information on the label. However, further details as to how label elements are arranged are left to the discretion of the person responsible for compiling the label. As a general rule, the information should be structured in a way that is easy to read and understand. Examples are outlined in Table 1 below:

Table 1: CLP labelling requirements versus discretion of the supplier

CLP requirement (Article 32)	Example of decision left to the discretion of the supplier
The hazard pictograms, signal word, hazard statements and precautionary statements must be kept together on the label.	The supplier is free to choose the arrangement of the pictograms.
Hazard statements must be grouped together on the label.	The supplier may choose the order of the hazard statements. The supplier may choose whether these groups are to be presented on the left, on the right or elsewhere on the label.
Precautionary statements must be grouped together on the label.	The supplier may choose the order of the precautionary statements, but should ensure that they are grouped with the hazard statements. The supplier may choose whether these groups are to be presented on the left, on the right or elsewhere on the label.
In case more than one language is used on the label, the hazard and precautionary statements of the same language must be grouped together on the label.	Where the supplier needs to use alternative means to meet the requirements of CLP Article 31 in relation to the language(s) required in a particular Member State, he may choose whether to accomplish this using fold-out labels, tie-on tags or on an outer packaging, in accordance with section 1.5.1 of Annex I
Any supplemental information as referred to in CLP Article 25 must be included in the section for supplemental labelling and placed alongside the label elements referred to in CLP Article 17(1)(a)–(g).	The supplier may choose how to visibly separate this section from the section containing the label elements referred to in CLP Article 17(1)(a)–(g). He may also decide to place this information in more than one location on the label.
The label elements must be easily readable (Article 31(3)).	It is recommended to keep full sentences together and in one line, if possible. The font size and spacing must be large enough and in relation to the dimensions of the label.

3.4 Differences between CLP and DSD/DPD labelling rules

There is more required information on the CLP label compared to the DSD/DPD regime, and this requires more space on the label.

One reason for this is that additional pictograms are required under CLP, compared to DSD/DPD, also some H- and P- statements are longer. Similarly, the new additional statements that apply under certain conditions: 'x % of the mixture consists of component(s) of unknown acute toxicity' and/or 'Contains x % of components with unknown hazards to the aquatic environment' consume additional space.

Where mixtures have to be classified on the basis of the calculation methods, lower generic concentration limits trigger additional classification and labelling compared to DSD/DPD, which means that further hazard and precautionary statements must be put on the label.

In contrast to DSD/DPD, combined hazard statements that would condense the message and save label space are limited in CLP to Acute Toxicity only (see [sub-section 4.5](#) of this guidance).

CLP allows the omission of certain H-statements according to the principles of precedence given in Annex III, Part 1 (hazard statements).

CLP also includes more precautionary statements compared to the number of safety phrases used under DSD/DPD.

On the other hand, less prescriptive selection rules under CLP compared to DSD make it more difficult to stay within the maximum number of six precautionary statements on the label as intended by CLP ([sub-section 4.6](#) and [section 7](#) of this guidance).

For illustration purposes, **Figure 2** on the next page shows a comparison of certain important label elements⁸ under CLP and DSD:

⁸ Figure 2 is not intended to be a label that complies with the provisions of the CLP Regulation, but is meant to present a rough overview of applicable label elements only.



Comparison of certain important label elements	
CLP	DSD
<u>Hazard pictograms</u>	<u>Danger symbols</u>
	
<u>Signal word</u>	<u>Indications of danger</u>
Danger	Toxic
	Dangerous for the environment
<u>Hazard statements</u>	<u>Risk phrases</u>
Toxic if swallowed or if inhaled	Toxic by inhalation and if swallowed
Causes severe skin burns and eye damage	Causes burns
May cause an allergic skin reaction	May cause sensitisation by inhalation and by skin contact
May cause allergy or asthma symptoms or breathing difficulties if inhaled	
Very toxic to aquatic life	Very toxic to aquatic organisms
Selection from ca. 30 precautionary statements⁹	S: (1/2-)26-36/37/39-45-61

Figure 2: Comparison of certain important label elements under CLP and DSD

⁹ Not more than six P-statements should appear on the label unless necessary (CLP Article 28 (3)).

The example in **Figure 2** shows that under CLP optimum use of the available space on the label may be a greater challenge than was the case under the DSD/DPD labelling regime.

3.5 CLP rules on packaging of substances and mixtures

Before continuing to describe in more detail the CLP requirements for packaging the reader should be introduced to the three CLP definitions:

Article 2 (35): '**package**' means the complete product of the packing operation, consisting of the packaging and its contents;

Article 2 (36): '**packaging**' means one or more receptacles and any other components or materials necessary for the receptacles to perform their containment and other safety functions;

Article 2 (37): '**intermediate packaging**' means packaging placed between inner packaging, or articles, and outer packaging;

CLP Article 35 includes the requirements for packaging containing hazardous substances or mixtures. These provisions are to ensure that:

- the packaging is designed, constructed and fastened so that the contents cannot escape;
- the materials of the packaging and fastening are not damaged by the contents and are not liable to form hazardous compounds with the contents;
- the packaging and fastenings are strong and solid throughout to ensure that they will not loosen;
- packaging fitted with replaceable fastening devices is properly designed to allow repeated refastening without the contents escaping;
- the packaging does not attract or arouse the curiosity of children or mislead the consumer when supplied to the general public;
- the packaging does not have the similar presentation or a design used for foodstuff or animal feed stuff or medicinal or cosmetic products which would mislead the consumers.

Packaging that meets the requirements of the transport legislation is deemed to comply with the requirements set out in the bullet points above. (Fulfilling the conditions in the above bullet points alone is usually not enough to comply with the requirements of the transport legislation.)

For substances and mixtures to be supplied to the general public, CLP sets out rules for:

- the use of child-resistant fastening (also referred to as child-resistant closure), see [sub-section 3.5.1](#) of this guidance;
- the use of tactile warnings of danger (TWD), see [sub-section 3.5.1](#) of this guidance;
- liquid consumer laundry detergents in soluble packaging for single use, ([sub-section 3.5.2](#) of this guidance).

The first two provisions are triggered by either a specific hazard class/category or by the concentration of specific substances contained in other substances or in mixtures, see

Table 2 and **Table 3** of this guidance document.

3.5.1 Child-resistant fastening and tactile warnings of danger

The provisions described in this sub-section apply only for product packaging intended for the general public, for example: products on sale/offer at a retailers or outlet where the general public have open access to them, products sold to the general public through a website.

The requirements for child-resistant fastening and tactical warnings of danger are not required for product packaging which is for professional users only.

Child-resistant fastening (CRF)

A child-resistant package¹⁰ is a package consisting of a container and appropriate closure which is difficult to open (or gain access to the contents) for young children under the age of fifty-two months, but which is not difficult for adults to use properly¹¹.

Annex II to CLP refers to two types of child-resistant fastening for packages:

- **non-reclosable package** - a package which, when all or part of the contents have been removed, cannot be properly closed again, for example a blister pack or air freshener refills;
- **reclosable package** - a package (for example a one litre bottle or a five litre container) which after it has been initially opened, can be reclosed and re-used numerous times without loss of security.

For fastening of the abovementioned packages, Annex II to CLP requires conformity with the following standards, as amended:

- EN ISO 8317 (reclosable packages) and
- CEN EN 862 (non-reclosable packages).

Conformity with these standards may only be certified by laboratories which conform to EN ISO/IEC 17025, as amended. The EN ISO/IEC 17025 standard

¹⁰ Please note that the terminology between the CLP legal text and the EN standard differs. CLP refers to packaging fitted with child resistant **fastening**, whereas EN ISO 8317 refer to child resistant **packages**.

¹¹ According to EN ISO 8317.

relates to the competence of testing laboratories and the requirements which they are required to meet to demonstrate that they are technically competent and can generate technically valid results.

A packaging of whatever capacity supplied to the general public must be fitted with CRF for substances or mixtures:

- classified for acute toxicity 1-3 – oral (H300 and H301), dermal (H310 and H311) and inhalation (H330 and H331), STOT-SE 1 (H370), STOT-RE 1 (H372), skin corrosion cat. 1, subcategories: 1A, 1B, 1C (H314), or
- classified as presenting an aspiration hazard (H304) with the exception of substances and mixtures that are placed on the market in the form of aerosols or in a container fitted with a sealed spray attachment, or
- containing methanol at a concentration greater or equal to 3% or dichloromethane at a concentrations greater or equal to 1% (see also **Table 3** of this guidance document).

Tactile warnings of danger (TWD)

Package provided with a tactile warning of danger enables blind or visually impaired people to ascertain if the package contains a hazardous substance or mixture. TWD must be placed on the packaging, so that it can be felt before accessing the contents. The warning must be located in such a way that any other embossed patterns do not cause confusion. The exact location of TWD must be according to EN ISO standard 11683.

The TWD must also remain tactile during the expected period of use of the package under normal handling conditions. The TWD is not required on outer packaging such as for example a cardboard box protecting a glass bottle¹².

For TWD Annex II to CLP requires conformity to EN ISO standard 11683, as amended. The required standard TWD symbol (the "normal" symbol under the ISO standard) is an equilateral triangle. In exceptional cases (if the application of the normal symbol is not physically possible) the three dots symbol may be used. If it is not physically possible to even use the three dots symbol, the three mm symbol may be used¹³.

A packaging of whatever capacity supplied to the general public must be fitted with TWD for substances or mixtures classified for:

- acute toxicity 1-4 – oral (H300, H301 and H302), dermal (H310, H311 and H312) and inhalation (H330, H331 and H332),
- skin corrosion cat. 1, subcategories: 1A, 1B and 1C (H314),
- germ cell mutagenicity 2 (H341),
- carcinogenicity 2 (H351),

¹² According to EN ISO 11683.

¹³ The arrangement and layout of the triangle, three dots as well as the three mm symbol are specified in EN ISO 11683.

- reproductive toxicity 2 (H361);
- respiratory sensitisation 1, 1A and 1B (H334),
- STOT 1 or 2 (H370, H371, H372 and H373),
- aspiration hazard 1 (H304),
- flammable gases 1 and 2 (H220 and H221),
- flammable liquids 1 and 2 (H224 and H225) or
- flammable solids 1 and 2 (H228).

According to CLP Annex II, section 3.2.1.2 TWD is not required for transportable gas receptacles. TWD is also not required for aerosols and containers fitted with a sealed spray attachment containing substances or mixtures classified as presenting an aspiration hazard, unless they are classified for one or more of the other hazards mentioned above.

Table 2 provides an overview of the hazard classifications triggering the CLP provisions for CRF and/or TWD. See also **Table 3** which lists substances that can trigger the CLP provisions for CRF and/or TWD if they are present in other substances or in mixtures at a certain concentration.

Table 2: The hazard classifications that trigger the CLP provisions for child-resistant fastenings and/or tactile warnings

Hazard Class, Category	Child-resistant Fastenings	Tactile Warnings
Acute toxicity 1 to 3	✓	✓
Acute toxicity 4		✓
STOT SE 1	✓	✓
STOT SE 2		✓
STOT RE 1	✓	✓
STOT RE 2		✓
Skin corrosion (category 1, subcategories: 1A, 1B and 1C)	✓	✓
Respiratory sensitisation 1, 1A and 1B		✓
Aspiration hazard 1 <i>Note that a CRF and TWD are not required if the substance or mixture is supplied in the form of an aerosol or in a container fitted with a sealed spray attachment</i>	✓	✓
Germ cell mutagenicity 2		✓
Carcinogenicity 2		✓
Reproductive toxicity 2		✓

Hazard Class, Category	Child-resistant Fastenings	Tactile Warnings
Flammable gases (category 1 and 2)		✓
Flammable liquids 1 and 2		✓
Flammable solids 1 and 2		✓

Table 3: Substances that directly trigger the CLP provisions for child-resistant fastenings and/or tactile warnings when they are contained in other substances or in mixtures at or above the denoted concentration

Identification of the substance	Concentration limit	Child-resistant Fastenings	Tactile Warnings
Methanol	≥ 3%	✓	✓*
Dichloromethane	≥ 1%	✓	✓**

* It should be noted that above a certain concentration, methanol mixtures also need a tactile warning because the mixture would then have to be classified as flammable liquid, category 1 or 2, STOT 1 or 2.

** In addition, mixture containing dichloromethane at a concentration above 1% would be classified as carcinogenic, category 2 and thereby needs a tactile warning.

3.5.2 Liquid consumer laundry detergents in soluble packaging for single use

Additional safety measures for liquid laundry detergents in soluble capsules have been introduced. They aim to ensure better protection of the general public, especially young children who can be tempted to put the capsules into their mouth.

The additional safety requirements make the packaging less attractive and more difficult to open for children. In addition, the packaging is to display warnings to alert parents and child-care providers that such products have to be kept out of reach of children.

Besides these specific rules, the supplier is responsible, according to Article 35(2), for taking all necessary steps to make sure that the design of the packaging is not attractive to children, e.g. that it cannot be mistaken for foodstuff or toys.

A consumer laundry detergent is a detergent used for laundry, placed on the market for use by non-professionals, including public launderettes¹⁴.

Article 35(2) and Part 3.3 of Annex II to CLP provides the following requirements on packaging and labelling of liquid laundry detergents in dosages for single use contained in a soluble packaging:

¹⁴ Article 2(1a) of Regulation 648/2004 on detergents.

Obligation to market liquid consumer laundry detergents in an outer packaging

Liquid consumer laundry detergents contained in soluble packaging for single use (for example liquid capsules or liquitabs for use in washing machines) must be contained in an outer packaging. Placing on the market of liquid detergent capsules without an appropriate outer packaging system is considered as non-compliant with Article 35(1) and Annex II, section 3.3.1 of CLP.

Provisions on the outer packaging

In order to reduce the attractiveness of liquid detergent capsules to children, the outer packaging must be opaque or obscure (for example non-see through container of a block colour(s)) to prevent visibility of the contents, i.e. the product or individual doses.

The outer packaging must bear precautionary statement P102 ("Keep out of reach of children") at a visible place and in a format that attracts attention.

Furthermore, the outer packaging must be a self-standing container, which is easily re-closable, i.e. the pack closure must be easily re-closable in one single movement (for example with one finger pressure). This measure aims to avoid the risk that the container will simply be left open if closing is too difficult.

As the main cause of incidents seems to be the easy access to the detergent capsules, the outer packaging must be fitted with a closure that impedes the ability of young children to open the packaging. Such a closure should require coordinated action of both hands with certain strength that makes it difficult for young children to open it. It should be noted that this requirement does not correspond necessarily with closure requirement for CRF described in section 3.5.1 of this guidance.

In addition, the pack closure must be designed for repeated use to maintain its functionality under conditions of repeated opening and closing for the entire life span of the outer packaging.

Provisions on the soluble (inner) packaging

Additional technical requirements (mechanical resistance and water dissolution) were introduced to make the soluble packaging more resistant.

In addition to the requirements for the outer packaging, the soluble packaging must contain an aversive (e.g. bittering or other repulsive) agent against oral exposure. The aversive agent must be added in a concentration which is safe and which causes oral repulsive behaviour within a maximum time of six seconds.

The soluble film must also meet minimum mechanical and dissolution resistance criteria. It must retain the liquid content for at least 30 seconds when placed in water at 20°C. It must also resist mechanical compression of at least 300 N under standard test conditions.

The labelling of soluble packagings containing less than or equal to 25 ml may benefit from a labelling exemption under conditions specified in section 1.5.2.2 of Annex I to CLP, ([sub-section 5.3.2.2](#) of this guidance); the labelling requirements of CLP Article 17 apply to soluble packagings where the contents are more than 25 ml.

4. Rules for the application of the CLP label elements

4.1 Contact details of the supplier

According to CLP Article 17, the contact details of one or several suppliers must be included on the label. In principle, there can be more than one supplier of the same substance or mixture in the supply chain, e.g. in case a mixture has been supplied by the formulator to a distributor who would supply it to third parties as well. However, CLP Article 17 does not specify whether the contact details of both suppliers are needed in such cases. Nor does it specify whether the contact details of one particular supplier have precedence.

Following from CLP Article 4(4), each supplier must ensure that a hazardous substance or mixture is labelled and packaged in accordance with Titles III and IV of the CLP Regulation before he places it on the market. On the way through the supply chain the labelling for the same substance or mixture may vary depending on the volume of the package or as a consequence of further layers of packaging, ([sub-section 5.2](#), [sub-section 5.3](#) and [sub-section 5.4](#) of this guidance).

Where a supplier changes the packaging so that the label elements set out in CLP Article 17 have to be displayed differently than on the label/packaging supplied to him, he takes the responsibility for re-packaging and re-labelling and should add his own name and contact information on the label. In this case he may also replace the contact information of his supplier with his own contact details.

When he does not change the packaging so that changes to the labelling would become necessary, he does not need to add his contact details to the label nor replace the contact information of his supplier with his own contact details, but may do so if he wishes to. In case he changes the language(s) displayed on a label, he should add his contact details to the contact details of the relevant supplier who issued the original label, as he is then responsible for the correct translation of the label content.

4.2 Product identifiers

This sub-section provides the guidance on the requirements for product identifier for substances (Article 18(2)) and mixtures (Article 18(3)).

As a general rule, the same product identifier(s) as selected for the label must be used in the SDS¹⁵ for a substance or mixture. Any product identifiers selected for the label must be written in the official language(s) of the Member State(s) where the substance or mixture is placed on the market, unless the Member State concerned provides otherwise, see CLP Article 17(2).

4.2.1 Substances

The product identifier for a substance must consist of at least the following:

- a name and an identification number as given in Part 3 of Annex VI to CLP

¹⁵ For further information on the compilation of the SDS, please consult the *Guidance on the compilation of safety data sheets* (<http://echa.europa.eu/guidance-documents/guidance-on-reach>).

The name can be any of the names stated as International Chemical Identification in column 2 of the tables in Part 3 of Annex VI to CLP. The identification number is typically the Index number, the EC number or the CAS number. It is recommended to use the number that warrants an unambiguous identification of the substance; in some cases it may be warranted to use two numbers, e.g. the CAS and the EC number. When translating the name of an Annex VI substance into the required language(s), it may be useful to check whether an appropriate translation is already available in a public database, for example in ECHA's Classification and Labelling Inventory (C&L Inventory), see <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database> ; or

- if the substance is not included in Part 3 of Annex VI to CLP, a name and an identification number as they appear in the Classification and Labelling (C&L) Inventory.

The name is typically the IUPAC name¹⁶, the EC name or the CAS name. The identification number must be the EC or the CAS number or the Index number (originating from table 3.1 of Annex VI), It is recommended to use the number or numbers that warrant(s) an unambiguous identification of the substance. The choice of an identifier such as (where applicable) the EC number or CAS number is advisable to minimise the need for revision of the SDS; or

- if the substance is neither included in Part 3 of Annex VI to CLP nor in the C&L Inventory database, the CAS number and the IUPAC name, or the CAS number and another international chemical name, e.g. the name in INCI nomenclature¹⁷, where applicable; or
- if no CAS number is available and none of the above apply, the IUPAC name or another international chemical name, e.g. the name in INCI nomenclature where applicable.

4.2.2 Mixtures

The product identifiers for mixtures must include both:

- the trade name or the designation of the mixture; and
- the identity of all substances in the mixture that contribute to the classification of the mixture as regards acute toxicity, skin corrosion or serious eye damage, germ cell mutagenicity, carcinogenicity, reproductive

¹⁶ Where the IUPAC name exceeds 100 characters, suppliers can use one of the other names (usual name, trade name or abbreviation) referred to in section 2.1.2 of Annex VI REACH provided that a C&L notification to ECHA, in accordance with CLP Article 40(1)(b), includes both the IUPAC name and the other name used.

¹⁷ The *International Nomenclature Cosmetic Ingredients* (INCI) is mandatory in the European Union (EU) according to Regulation (EC) No 1223/2009 for labelling the names of ingredients on cosmetic products. The INCI system was introduced in the European Community in 1996/97 and is well established for cosmetic products. It is also used in many non-EU countries. Since 2004, the INCI system is also mandatory in the EU for labelling of preservatives and allergenic perfume ingredients according to the Detergents Regulation (EC) No 648/2004.

toxicity, respiratory or skin sensitisation, specific target organ toxicity (STOT), or aspiration hazard.

The CLP Regulation does not specify the type of chemical names¹⁸ that should be used to identify the chemical substances in the mixture. It only mentions the approach used for identification of substances in the mixture that contribute to the classification of the mixture (see Article 18(3)(b) and second paragraph of Article 18(3)). Nevertheless, when choosing a chemical name, it is recommended that the approach outlined in Article 18(2) is followed. This approach should also be followed if the name of the substance is shorter than other names available to the user/consumer or better recognised by the user/consumer in the language of the Member State where the mixture is placed on the market. This is often the case for common or basic ingredients. Furthermore, if there is a translated name available in Annex VI or in the C&L Inventory, this name should be used.

However, in cases where another international chemical name (for example an INCI name) is better known by the user/consumer, it is possible to deviate from Article 18(2) approach. It is preferable to use the name that is regarded as well-known. The name of the substance needs to unambiguously define its identity. Where an INCI name does not sufficiently define the substance identity compared e.g. to the requirements of Article 18 (2) or the requirements for SDSs under the REACH Regulation, a clearer identification should be preferred.

If the trade name or the designation of the mixture already includes the name(s) of the substance(s) contributing to the classification of the mixture as defined in paragraph 3(b) of Article 18, they do not need to be repeated. Moreover, if the supplemental information on the label already contains the chemical name of the substance, e.g. in the list of allergens and preservatives required by Regulation (EC) No 648/2004 on detergents, it is advisable to use the same name. This approach should apply to both consumer and professional products.

The selected chemical names must identify the substances primarily responsible for the major health hazards which have caused the classification of the mixture and the assignment of the corresponding hazard statements.

To reduce the number of substance ('chemical') names on the label, no more than four names should be provided on the label for a mixture, unless necessary due to the nature and severity of the hazards. This may be the case where a mixture contains more than four substances which are all present in significant concentrations so that they contribute to the classification of the mixture for one or several of the hazards mentioned under the Article 18(3)(b). Please refer also to CLP FAQ ID=1050 available at <http://echa.europa.eu/support/qas-support/qas>.

The manufacturer, importer or downstream user of certain, less hazardous substances contained in a mixture may conclude that disclosing substance identifiers that are required for the label or the SDS can put the confidential nature of his business or intellectual property rights at risk. In such cases he may submit a request to ECHA to be granted permission to use an alternative chemical name in accordance with CLP Article 24. The alternative name should be a more general name identifying the most important functional groups or an alternative designation. The conditions under which the use of an alternative name may be granted are given in part 1, section 1.4 of Annex I to CLP.

¹⁸ The terms used for identification of the mixture and the substances in the mixture must be the same as those used in the safety data sheet.

The above requests are subject to a fee, in accordance with Article 3 of Commission Regulation (EU) No 440/2010 (the Fee Regulation). Where the request is submitted by a micro, small or medium-sized enterprise (SME)¹⁹, ECHA will levy a reduced fee as set out in Article 24(2) and Annex I of the Fee Regulation. For more information on how to request the use of an alternative chemical name for a substance in a mixture, please follow the technical instructions set out in the manual on preparation of REACH and CLP dossier: How to prepare a request for use of an alternative chemical name for substance in mixture (<http://echa.europa.eu/manuals>).

It is also advised to visit the following section on the ECHA website: <http://echa.europa.eu/support/dossier-submission-tools/reach-it/requesting-an-alternative-chemical-name-in-mixtures>.

4.3 Hazard pictograms

4.3.1 General information

A hazard pictogram is a pictorial presentation to communicate information on the hazard concerned, see also the definition provided in Articles 2(3) and 31(2) of CLP. According to CLP Article 19, the classification of a substance or mixture determines the hazard pictograms that have to be displayed on a label. Information on the assignment of hazard pictograms to specific hazard classes and categories/differentiations can also be found in Annex V to CLP.

Currently there are nine different pictograms. While normally only one pictogram is assigned to an individual hazard class or category, a few hazard differentiations have to carry two pictograms, namely substances and mixtures classified as self-reactive Type B or as organic peroxide Type B, see also below. It should also be noted that some pictograms cover several hazard classes and categories.

4.3.2 Shape, colour and dimensions

The colour and presentation of a label must allow the hazard pictogram and its background to be clearly visible. Hazard pictograms must be in the shape of a square set at a point, i.e. they must appear as a diamond shape when the label is read horizontally, and must have a black symbol on a white background with a red frame (see section 1.2.1 of Annex I to CLP). The exact type of red, i.e. the Pantone colour number, is not defined, and labellers are free to use their discretion. Each hazard pictogram²⁰ must cover at least one fifteenth of the minimum surface area of the label dedicated to the information required by CLP Article 17, but the minimum area of the pictogram must not be less than 1 cm². The minimum dimensions of labels and pictograms are given in Table 1.3 of Annex I to CLP. Below is the exclamation mark (pictogram GHS07) as an example pictogram. This is assigned to various health hazard classes and categories of lower severity, see Part 2 of Annex V to CLP:

¹⁹ SME is defined in Commission Recommendation 2003/361/EC.

²⁰ The size of the pictogram relates here to the dimensions of the pictogram itself, and not to the size of the virtual square within which the pictogram is placed.



Printable pictograms are provided free of charge for download at
<http://www.unece.org/trans/danger/publghs/pictograms.html>.

4.3.3 Precedence rules

For substances and mixtures classified for more than one hazard, several pictograms may be required on the label. In such cases, the applicability of the precedence rules set out in CLP Article 26 needs to be checked. As a general rule, the pictograms which reflect the most severe hazard category of each hazard class must be included on the label. This would also apply where a substance has both a harmonised and a non-harmonised (i.e. self-) classification, see CLP Article 26(2).

Further to this, CLP sets out precedence rules relating to particular hazard pictograms and classifications:

- **For physical hazards**, if the label carries the pictogram GHS01 (exploding bomb), then GHS02 (flame) and GHS03 (flame over circle) are optional ...



mandatory optional optional

... except in cases where more than one pictogram is compulsory, namely for substances and mixtures classified as self-reactive Type B or as organic peroxide Type B, see Annex I to CLP;

- **For physical and health hazards**, if the label carries the pictogram GHS02 (flame) or GHS06 (skull and crossbones), then GHS04 (gas cylinder) is optional²¹:



mandatory or mandatory optional

- **For health hazards**, if the label carries the pictogram GHS06 (skull and crossbones), then GHS07 (exclamation mark) must not appear:

²¹ This precedence rule was introduced by the Commission Regulation (EU) No 286/2011 of 10 March 2011 (2nd ATP to the CLP Regulation).



- **For health hazards**, if the label carries the pictogram GHS05 (corrosion), then GHS07 (exclamation mark) must not be used for skin or eye irritation...



... but still has to be used for other hazards.

For health hazards, if the label carries the pictogram GHS08 (health hazard) for respiratory sensitisation, then GHS07 (exclamation mark) must not be used for skin sensitisation or for skin or eye irritation ...



... but still has to be used for other hazards.

In case a substance or mixture is assigned the supplemental hazard statement EUH071 ("Corrosive to the respiratory tract"), a corrosivity pictogram (GHS05) may be assigned, see Note 1 of Table 3.1.3 of Annex I to CLP. Where this is done, the pictogram GHS07 (exclamation mark) for STOT, single exposure, category 3 (respiratory tract irritation) must be omitted from the label, as well as the hazard statement H335 (May cause respiratory irritation).

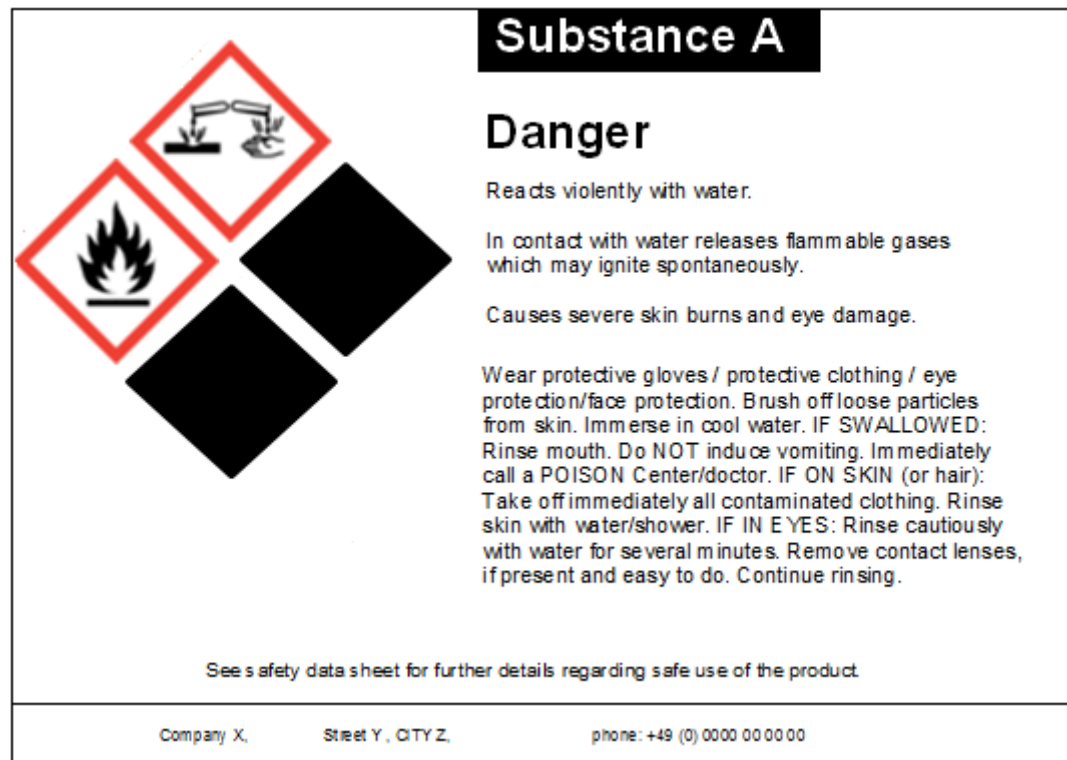
For substances and mixtures that have to be labelled both in accordance with the CLP Regulation and with the rules on the transport of dangerous goods, the CLP pictogram(s) may be omitted from the label where the CLP pictogram(s) relates to the same hazard as in rules for transport ([sub-section 5.4](#) of this guidance).

4.3.4 Blank pictograms

When preparing hazard labels, a common practice is to use pre-printed label stocks of the diamonds (the label background is printed first before it is overprinted with the specific label information). This may result in labels with a number of pre-printed empty diamonds, not all of which may then be needed by a company that has purchased pre-printed labels. In such situation one or more pre-printed diamonds may have to be left empty.

CLP does not explicitly forbid blank diamonds. However, any information given in addition to the minimum mandatory labelling must not contradict or cast doubt on the mandatory label information (Article 25(3)), while empty red frames might

- 1 raise questions. If empty red frames are unavoidable, it is recommended to cover
 2 them up with a solid overprint which blacks them out completely, see the
 3 example in **Figure 3**.



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Figure 3. Blackened out empty diamonds

Blackening-out of empty diamonds aims to avoid the impression that relevant hazard symbols may have been left off the label through a printing mistake.

Please refer also to CLP FAQ ID=240 available at
<http://echa.europa.eu/support/qas-support/qas>.

4.4 Signal words

A signal word indicates the relative level of severity of a particular hazard. The label must include the relevant signal word in accordance with the classification of the hazardous substance or mixture: more severe hazards require the signal word 'danger' while less severe hazards require the signal word 'warning', see CLP Article 20.

The signal word relevant for each specific classification is set out in the tables indicating the label elements required for each hazard class as set out in parts 2 to 5 of Annex I to CLP. Some hazard categories, like explosives, division 1.6, do not have a signal word.

Where a substance or mixture is classified for more than one hazard, the label must only bear one single signal word. In such cases, the signal word 'danger' takes precedence. The signal word 'Warning' must not appear.

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4.5 Hazard statements

CLP hazard labels must also bear the relevant hazard statements describing the nature and severity of the hazards of a substance or mixture, see CLP Article 21.

The hazard statements relevant for each hazard class and category/differentiation are set out in the tables contained in parts 2 to 5 of Annex I to CLP. An example is the hazard statement H302 (Harmful if swallowed) assigned to acute oral toxicity, category 4. The wording for hazard statements is given in Tables 1.1, 1.2 and 1.3 of Annex III to CLP.

In some cases additional information to complement a hazard statement²² may need to be provided, such as the specification of the route of exposure or of the target organ for certain health hazards, i.e. for the CMR and the STOT single and repeated exposure hazard classes. For example:

- for the STOT-RE, the hazard statement H372 (Causes damage to the liver through prolonged or repeated dermal exposure) must be complemented by the organs affected if known and by the route of exposure if it is conclusively proven that no other routes of exposure cause the hazard;
- for the STOT-SE, category 1 the route of exposure or the target organ may have to be included in the statement as well, e.g. H370 (Causes damage to the liver via ingestion).

If a substance classification is harmonised and included in Part 3 of Annex VI to CLP, the corresponding hazard statement(s) relevant for this classification have to be used on the label. Note that certain harmonised classifications marked with an asterisk in Part 3 of Annex VI to CLP are minimum classifications, and based on available data a more severe classification as well as the corresponding hazard statement may need to be assigned. Also, hazard statements may need to be included for non-harmonised hazards classes or differentiations which are not covered in the Annex VI listing for the same substance, see CLP Article 4(3).

Table 1.2 of Annex III to CLP defines which combined hazard statements are allowed²³. Currently, combinations are allowed for acute toxicity hazard statements which relate to different routes of exposure, but to the same category. Such statements can appear on the label and in the SDS, for example: for category 3 for the oral and dermal route H301+H311 (Toxic if swallowed or in contact with skin).

If a substance or mixture is classified in several hazard classes or differentiations of a hazard class, all hazard statements resulting from the classification must appear on the label, unless there is evident duplication or redundancy, see CLP Article 27. This also applies to a substance or mixture which is assigned the supplemental hazard statement EUH071 (Corrosive to the respiratory tract)²⁴. In this case, the hazard statement H335 (May cause respiratory irritation) for STOT, single exposure, category 3 (respiratory tract irritation) must be omitted from the label.

²² Please note that this does not constitute supplemental labelling information in the meaning of CLP Article 25. It is rather additional hazard information which is required to be included within the hazard statement itself, beyond the standardised wording.

²³ Commission Regulation (EU) No 286/2011 of 10 March 2011

²⁴ See also Note 1, Table 3.1.3 of Annex I to CLP

It should be noted that in some cases additional information to complement a hazard statement may need to be provided, such as the specification of the route of exposure or of the target organ for certain health hazards, i.e. for the CMR and the STOT single and repeated exposure hazard classes. For example, for the STOT repeated exposure hazard class, the hazard statement H372 (Causes damage to organs through prolonged or repeated exposure) must be complemented by the organs affected if known and by the route of exposure if it is conclusively proven that no other routes of exposure cause the hazard. Please note that this does not constitute supplemental labelling information in the meaning of CLP Article 25. It is rather additional hazard information which is required to be included within the hazard statement itself, beyond the standardised wording.

The correct wording of the hazard statements as it has to appear on the label is given in CLP Annex III, in all EU languages. The hazard statements of one language must be grouped together with the precautionary statements of the same language on the label ([sub-section 3.3](#) of this guidance).

4.6 Precautionary statements

CLP hazard labels must bear the relevant precautionary statements giving advice on measures to prevent or minimise adverse effects to human health or the environment arising from the hazards of a substance or mixture, see CLP Article 22. An example is the precautionary statement P373 (DO NOT fight fire when fire reaches explosives). The complete set of precautionary statements relevant for each hazard class and category/differentiation is listed by alphanumeric code in the tables indicating the label elements required for each hazard class in parts 2 to 5 of Annex I to CLP.

Precautionary statements must be selected in line with the provisions set out in CLP Article 22 and 28 and with Part 1 of Annex IV to CLP: any selection must take into account the hazard statements used, the intended or identified use or uses of the substance or mixture as well as the basic instructions specified in the "conditions for use" columns in tables 6.1 – 6.5 of Annex IV to the CLP Regulation. Duplication and redundancy should be avoided. Where the substance or mixture is supplied to the general public, one precautionary statement addressing the disposal of that substance or mixture as well as the disposal of packaging must in general²⁵ appear on the label, see CLP Article 28(2). Normally, not more than six precautionary statements must appear on the label, unless necessary to reflect the nature and the severity of the hazards (**Example C** in sub-section 7.4 of this guidance).

For assistance with the selection of the most appropriate P-statements, please refer to [section 7](#) of this guidance.

Part 2 of Annex IV to CLP lists, in all EU languages, the correct wording of the precautionary statements as it must appear on a label. In case of different translations of P-statements, the translation in national version of CLP usually gives the most relevant wording. The precautionary statements of one language have to be grouped together with the hazard statements of the same language on the label ([sub-section 3.3](#) of this guidance).

²⁵ In all other cases, a P-statement addressing disposal is not required, where it is clear that the disposal of the substance or mixture or the packaging does not present a hazard to human health or the environment.

4.7 Codes for hazard and precautionary statements

Hazard and precautionary statements are codified using a unique alphanumerical code which consists of one letter and three numbers, as follows:

- the letter "H" for "hazard statement" or "P" or "precautionary statement";
- for hazard statements, the first digit designating the type of hazard: physical hazards 2, health hazards 3 and environmental hazards 4 and following two digits corresponding to the sequential numbering of hazards, such as explosivity (codes from 200 to 210), flammability (codes from 220 to 230), etc.
- risk phrases carried through from DSD and DPD, but which are not yet included in the GHS are codified as "EUH";
- for precautionary statements, a digit reflecting one of five types of statements, namely general statements (1), prevention statements (2), response statements (3), storage statements (4) and disposal statements (5), followed by two digits for the sequential numbering of the statements themselves.

The code ranges for the hazard and precautionary statements under CLP are set out in **Table 4** below:

Table 4: Code ranges of hazard and precautionary statements under CLP

Hazard Statements: H	Precautionary Statements: P
200 – 299 Physical hazard	100 – 199 General
300 – 399 Health hazard	200 – 299 Prevention
400 – 499 Environmental hazard	300 – 399 Response
	400 – 499 Storage
	500 – 599 Disposal

The codes of the hazard and precautionary statements and EUH statements are not necessary for the label. The CLP Regulation only requires the actual phrasing of the applicable statements on the label.

4.8 Supplemental labelling information

CLP Article 25 defines the concept of 'supplemental information' which is intended to incorporate additional labelling information over and above that listed in CLP Article 17(a) to (g). This additional labelling information can be divided into two categories, namely obligatory and non-obligatory information. Please note that according to Article 25(6) supplemental labelling information might be obligatory for a mixture, even if not classified as hazardous.

All 'supplemental information' must be located in the section for supplemental information on the label. Both obligatory and non-obligatory supplemental information have to appear in the same languages as the other CLP label elements.

As it is obligatory to place this information alongside the label elements required by CLP Article 17(a) to (g), these supplemental label elements need to be considered carefully as to the location and the space they need when preparing a CLP label for a substance or mixture (see also Example 3 under section 6 of this guidance).

Obligatory supplemental information, when applied, must be easy to identify and to read. Naturally, it has precedence over any non-obligatory supplemental information if space on the label is limited.

4.8.1 Obligatory supplemental labelling information

Obligatory supplemental labelling information includes:

- Supplemental hazard statements relating to particular physical and health properties. These are codified as "EUH" statements, i.e. EUH001 (Explosive when dry). For some substances with harmonised classifications, the supplemental hazard statements are included in Part 3 of Annex VI;
- Supplemental statements for certain mixtures, e.g. the EUH204 (Contains isocyanates. May produce an allergic reaction), see Part 2 of Annex II to CLP. These phrases are assigned EUH codes as well, to align their presentation with the supplemental hazard statements, see above;
- The supplemental statement EUH401 (To avoid risks to human health and the environment, comply with the instructions for use) for hazardous substances and mixtures within the scope of Directive 91/414/EEC²⁶ (see Part 4 of Annex II);
- Label elements resulting from other EU acts (see CLP Article 32(6)), for example:
 - the authorisation number requested by the REACH Regulation,
 - the listing of surfactants and perfumes according to the Regulation (EC) No 648/2004 on detergents, as amended,
 - the authorisation number of the biocidal product according to Biocidal Products Regulation (EU) No 528/2012,
 - the flammability labelling according to the Aerosol Dispensers Directive 75/324/EEC (ADD), as amended or
 - the content of volatile organic compounds (VOC) in accordance with the Directive 2004/42/EC²⁷.

²⁶ Repealed by Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market with effect from 14 June 2011.

²⁷ Directive 2004/42/EC of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC

Further additional obligatory information can include:

- Specific response information as referred to in the brackets of the precautionary statements P320 "Specific treatment is urgent (see ... on this label)", P321 "Specific treatment (see ... on this label)" in Annex IV to CLP, e.g. "see supplemental first aid instructions on this label" or "see supplemental instructions on the administration of antidotes on this label". See also **Table 5** below and the selection tables ([sub-section 7.3](#) of this guidance);
- For mixtures containing components of unknown acute toxicity at a concentration at 1% or greater, the statement "x percent of the mixture consists of component(s) of unknown acute toxicity" (see point 3.1.3.6.2.2 of Annex I to CLP). This statement also has to be included in the SDS, when this is provided²⁸. In addition, it may be appropriate to differentiate the hazard based on the route of exposure. For example: "x percent of the mixture consists of ingredient(s) of unknown acute (oral/dermal/inhalation) toxicity", in particular where the substance is also classified for other hazards and where it is important to specify the route of exposure (see also *Guidance on the application of the CLP criteria*);
- For mixtures where no useable information on the acute and/or long-term hazard to the aquatic environment is available for one or more of the relevant components, the statement "Contains x percent of components with unknown hazards to the aquatic environment", see point 4.1.3.6.1 of Annex I to CLP. This statement has to be included on the label and in the SDS;

CLP requires supplemental label information to be located in a specific, supplemental information section on the label. A supplier may also choose to place the supplemental information in several locations, taking into account the requirements of CLP Article 25. See [Example 3](#) and [Example 5](#) in [section 6](#) of this document.

Similarly, the section for supplemental label information should be marked or visibly separated from the labelling elements according to CLP Article 17(a) to (g), e.g. by placing it in another section of the label, by putting it in a text box, by colour or by different letter size. However, on a case-by-case basis, it may not be advisable to make a visible differentiation between the CLP elements and obligatory supplemental labelling information that is requested by other legislation, where the latter supports the safe handling and use of a substance or mixture. For example, where additional EUH statements express a similar warning as contained in the hazard statements which reflect a classification, it is even advisable to group both statements together on the label so that they reinforce each other. For example: for lithium (EC No 231-102-5) which is classified as water-reactive category 1, the hazard statement EUH014 ("Reacts violently with water.") is very similar to H260 ("In contact with water releases flammable gases which may ignite spontaneously."), see [Example 4](#) in [section 6](#) of this guidance.

In relation to readability, obligatory labelling information required by other EU legislation (e.g. the content of volatile organic compounds as required by Directive 2004/42/EC or the listing of specified constituents as required by

²⁸ For further information on the compilation of the SDS, please consult the *Guidance on the compilation of safety data sheets* (<http://echa.europa.eu/guidance-documents/guidance-on-reach>).

Regulation (EC) No 648/2004) must not be treated differently from other obligatory labelling information required by CLP itself. Obligatory information must be easy to identify and read and must take precedence on the CLP label over any other non-obligatory supplemental information. An overview of the obligatory supplemental label elements to be included in the section for supplemental information on the label is provided in **Table 5**.

Table 5: Obligatory supplemental labelling information pursuant to CLP Articles 25 and 32

Legal Reference	Type and Applicability	Code	Content / Phrasing
CLP Article 25(1) and Annex II, Part 1, section 1.1	a)	Supplemental hazard statements relating to certain physical properties of substances and mixtures. They need to be assigned in accordance with the conditions specified in Annex II when a substance or mixture has already been classified on the basis of the criteria in Annex I to CLP. For some substances with harmonised classifications, supplemental hazard statements are included in Part 3 of Annex VI.	
		EUH001	'Explosive when dry'
		EUH014	'Reacts violently with water'
		EUH018	'In use, may form flammable/ explosive vapour-air mixture'
		EUH019	'May form explosive peroxides'
		EUH044	'Risk of explosion if heated under confinement'
CLP Article 25(1) and Annex II, Part 1, section 1.2	b)	Supplemental hazard statements relating to health properties of substances and mixtures. They need to be assigned in accordance with the conditions specified in Annex II, Part 1, section 1.2 when a substance or mixture has already been classified on the basis of the criteria in Annex I to CLP. For some substances with harmonised classifications, supplemental hazard statements are included in Part 3 of Annex VI. For EUH071, see also Annex I, Table 3.1.3, Note 1	

		EUH029	'Contact with water liberates toxic gas'
		EUH031	'Contact with acids liberates toxic gas'
		EUH032	'Contact with acids liberates very toxic gas'
		EUH066	'Repeated exposure may cause skin dryness or cracking'
		EUH070	'Toxic by eye contact'
		EUH071	'Corrosive to the respiratory tract'
CLP Article 25(6) and Annex II, Part 2	Supplemental statements for certain mixtures. They need to be assigned to mixtures in accordance with the conditions specified in Annex II, Part 2.		
	1. Mixtures containing lead	EUH201	'Contains lead. Should not be used on surfaces liable to be chewed or sucked by children'
	– for packaging content less than 125 ml	EUH201A	'Warning! Contains lead'.
	2. Mixtures containing cyanoacrylates	EUH202	'Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.'

3. Cement and cement mixtures	EUH203	'Contains chromium (VI). May produce an allergic reaction'
4. Mixtures containing isocyanates	EUH204	'Contains isocyanates. May produce an allergic reaction'
5. Mixtures containing epoxy constituents with an average molecular weight ≤ 700	EUH205	'Contains epoxy constituents. May produce an allergic reaction'
6. Mixtures sold to the general public which contain active chlorine	EUH206	'Warning! Do not use together with other products. May release dangerous gases (chlorine)'
7. Mixtures containing cadmium (alloys) and intended to be used for brazing or soldering	EUH207	'Warning! Contains cadmium. Dangerous fumes are formed during use. See information supplied by the manufacturer. Comply with the safety instructions.'
8. Mixtures not classified as sensitising but containing at least one sensitising substance ²⁹	EUH208	'Contains (name of sensitising substance). May produce an allergic reaction'
9. Liquid mixtures containing halogenated hydrocarbons	EUH209 EUH209A	'Can become highly flammable in use or Can become flammable in use'
10. Mixtures not intended for the general public	EUH210	'Safety data sheet available on request'

²⁹ According to Commission Regulation (EU) No 286/2011 (2nd ATP to the CLP Regulation), mixtures classified as sensitising containing other substance(s) classified as sensitising (in addition to the one that leads to the classification of the mixture) and present in a concentration equal to or greater than that specified in Table 3.4.6 of Annex I to CLP must bear the name(s) of that/those substance(s) on the label. Note that EUH208 must be used also when a non-classified mixture contains sensitising substances. .

	11. Aerosols		Aerosols are also subject to the labelling provisions of Directive 75/324/EEC
CLP Annex IV	Substances and mixtures assigned the precautionary statements - P320 - Specific treatment is urgent (see ... on this label). - P321 - Specific treatment (see ... on this label).		Supplemental first aid instruction (e.g. administration of an antidote or immediate measures such as specific cleansing agent) referred to in the brackets of the precautionary statements
CLP Annex I, section 3.1.3.6.2.2.	Mixture containing ingredient(s) of unknown acute toxicity at a concentration at 1% or greater		'x percent of the mixture consists of component(s) of unknown acute toxicity' (also for safety data sheet)
CLP Annex I, section 4.1.3.6.1	Mixture where no useable information on the acute and/or long-term aquatic hazard is available for one or more of the relevant components		'Contains x percent of components with unknown hazards to the aquatic environment'. (also for safety data sheet)
CLP Article 25(2)	Supplemental statement for substances and mixtures within the scope of Directive 91/414/EEC ³⁰	EUH401	'To avoid risks to human health and the environment, comply with the instructions for use'.

³⁰ Repealed by Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market with effect from 14 June 2011.

Label elements resulting from other Community acts pursuant to CLP Article 32(6)	Examples:		
	<ul style="list-style-type: none"> - Regulation (EC) No 1907/2006 (REACH) - Regulation (EC) No 648/2004 (detergents) - Directive 75/324/EEC on aerosol dispensers (AAD) - Directive 2004/42/EC on volatile organic compounds (VOC) - Biocidal Products Regulation (EU) No 528/2012 		<ul style="list-style-type: none"> - authorisation number - labelling statements related to restrictions in Annex XVII of REACH, e.g. 'Restricted to professional users' - listing of specified constituents such as anionic surfactants, oxygen bleaching agents, enzymes, disinfectants, optical brighteners and perfumes - flammability labelling - content of volatile organic compounds - authorisation number of the biocidal product

1

2 4.8.2 Non-obligatory supplemental labelling information

3 In some cases suppliers may need to include certain elements on the label which
 4 are not obligatory, but are necessary for the handling and use of the product, for
 5 example specific product information, basic instructions for use or P-statements
 6 which do not arise directly from the classification of the product (e.g. 'Read label
 7 before use' or 'Do not get in eyes' – for eye irritant mixtures). Such non-
 8 obligatory supplemental labelling information, the content of which is up to the
 9 discretion of the supplier, is not part of the labelling requirements under CLP.

10 The need for non-obligatory information should also be taken into account when
 11 deciding how to lay out the label. The non-obligatory supplemental information
 12 may also be placed alongside the label elements required in CLP Article 17(a) to
 13 (g) and the obligatory supplemental information, when applied. However, such
 14 information must not be confusing to the user or contradict the obligatory label
 15 elements. It should also provide further necessary details, see CLP Article 25(3).
 16

17 Additional labelling elements which come from the UN GHS but are not
 18 implemented in CLP may be included in the section for non-obligatory
 19 supplemental information, but they must not confuse the user.

In addition, any non-obligatory supplemental information, either included on the label or on the packaging, must be consistent with the classification of the substance or mixture, see CLP Article 25(4). This means that statements such as 'non-toxic', 'non-polluting' or 'ecological', or other statements suggesting that the substance/mixture is not hazardous or statements that are incompatible with the assigned classification must not appear on the label or packaging of a classified substance or mixture.

5. Guidance on particular aspects of CLP hazard labelling

5.1 Further aspects to consider for the CLP hazard label

To enable the supplier to design labels in compliance with CLP while at the same time allowing for as much freedom in arranging labels as possible, further labelling aspects should be considered.

- **Label size:** CLP defines minimum dimensions for the size of the label and some of its elements (see sub-section 5.2 of this guidance);
- **Specific labelling rules** that refer to specific labelling and packaging situations, for example:
 - a substance or mixture is contained in **awkwardly shaped or small packaging**, see CLP Article 29.
 - **the packaging consists of multiple layers** and/or
 - a substance or mixture is subject to the labelling provisions of the CLP Regulation and to **labelling provisions in accordance with the rules on the transport of dangerous goods** according to the UN Recommendations on the Transport of Dangerous Goods – Model Regulations (the so-called "Orange Book")³¹. The person responsible for compiling a CLP label needs to consider all of these rules before making a final decision on the label of the substance or mixture, see CLP Article 33;
- **Selection of precautionary statements:**
The selection of the most appropriate set of precautionary statements for the label is largely at the discretion of the supplier. Please refer to [section Z](#) of this guidance.

5.2 Size of the label and of the label elements

Section 1.2 of Annex I to CLP defines the label size, setting out **minimum dimensions** for the label, with the pictogram size being linked to these minimum dimensions (see also **Table 6** below). Nevertheless, the label should be large enough to contain all the label elements defined by CLP while remaining legible. As a result, the label may need to be larger than the minimum area specified.

³¹ Implemented in the EU through international modal agreements and Directive 2008/68/EC.

Table 6: Minimum dimensions of labels and pictograms under CLP

Capacity of the package	Dimensions of the label (in millimetres)	Dimensions of the pictogram (in millimetres)
≤ 3 litres	If possible, at least 52 x 74	Not smaller than 10 x 10 If possible, at least 16 x 16
> 3 litres but ≤ 50 litres	At least 74 x 105	At least 23 x 23
> 50 litres but ≤ 500 litres	At least 105 x 148	At least 32 x 32
> 500 litres	At least 148 x 210	At least 46 x 46

CLP requires that the label elements as referred to in CLP Article 17(1) be of such size and spacing as to be easily read. Readability is determined by the combination of font size, letter spacing, spacing between lines, stroke width, type colour, typeface, width-height ratio of the letters, the surface of the material and significant contrast between the print and the background.

**Figure 4: Readability**

A label may accommodate more language(s) than those required by the Member State where the substance or mixture is placed on the market. As long as the label complies with the (minimum) dimensions set out in **Table 6** above and as long as legibility of the text elements is warranted, the decision on the number of languages is at the discretion of the respective supplier.

The exact **size of the letters** of the signal words, hazard statements, precautionary statements and any supplemental information is not further defined in the legal text, i.e. it is left to the discretion of the supplier to determine the size of the letters that allow the label elements to be easily read. However, the minimum letter size of 1.2 mm ('x-height') can be used as a reference. A supplier may decide whether he wants to increase the letter size with the overall volume of the packaging and dimensions of the label, or to fix it more or less for all volumes and labels.

Similarly, a supplier may decide whether he prefers to have larger letter sizes for certain label elements while others are presented in smaller letters. Practical solutions often chosen are for example:

- providing the signal word "Danger" or "Warning" in larger letters on the label than the hazard and precautionary statements,
- presenting the obligatory label elements in larger letters than the non-obligatory labelling information.

Both abovementioned solutions are in principle compatible with the CLP legal text as long as the obligatory information on the label can be easily read.

CLP links the **size of the hazard pictograms** to the minimum dimensions of the label. Each hazard pictogram³² must cover at least one fifteenth of the surface area of the minimum dimension of the label dedicated to obligatory labelling information, as illustrated in Table 1.3 of Annex I. The minimum area of the pictogram must not be less than 1 cm². The pictogram size can be increased from the minimum dimensions where the actual label size allows this. The idea behind this is that the label size and the size of the pictograms should remain proportional to the size of the packaging.

The pictogram covering one fifteenth of the minimum dimensions as defined in Table 1.3 of Annex I to CLP is considered to be legible. The pictogram size has to be increased in all cases where it occupies less than one fifteenth of the surface area of the label dedicated to the obligatory labelling information. However, where a supplier chooses to use a label that is larger than the minimum dimensions for a certain capacity of the package, it is not necessary to increase also the size of the pictogram, provided it covers one fifteenth of the relevant minimum dimensions.

Example:

For a container of a capacity > 50 litres, but ≤ 500 litres, the minimum size of a pictogram must be 32 mm x 32 mm, which is one fifteenth of the minimum dimensions (105 mm x 148mm).

However it should be noted that if the label increases to dimensions 148 mm x 210 mm for the same capacity, the minimum size of pictogram should be at least 46 mm x 46 mm.

In principle, a label complying with the minimum dimensions set out above should be large enough to contain all the label elements defined in CLP Article 17 while remaining legible. Precedence must be given to the obligatory label elements and any obligatory supplemental information required by CLP and other EU legislation. If a supplier chooses to add non-obligatory supplemental label elements, legibility may be affected when more than just a small amount of such information is added. For larger amounts of non-obligatory information the supplier should consider to limit it or to increase the size of the label. When the size of the label is increased, the supplier should also consider increasing the size of the different obligatory label elements. This should serve the purpose of facilitating their identification and maintaining their legibility.

Any additional area gained by increasing the size of the label can be used for further information which is considered important by the supplier. However, this should be weighed against the requirement of CLP Article 25(3), namely that non-obligatory supplemental information must not make it more difficult to identify the obligatory label elements.

³² The size of the pictogram relates here to the dimensions of the pictogram itself, and not to the size of the virtual square where the pictogram is placed in.

5.3 Exemptions from the labelling and packaging requirements

Not all packages allow the necessary labelling information on the label or on the packaging to be displayed in line with the requirements of CLP Article 31.

CLP Article 29(1) and section 1.5.1 of Annex I provide derogations for packaging which is so small or in such a shape or form that it is impossible to meet the requirements of CLP Article 31.

Furthermore, CLP Article 29(2) and section 1.5.2 of Annex I allow the omission of certain label elements ([sub-section 5.3.2](#) of this guidance).

5.3.1 Use of fold-out labels, tie-on tags and outer packaging

The packaging of a substance or mixture can be so small or in such a shape or form that it is impossible to display the label elements in line with the requirements of CLP Article 31. This could either be because the Member States where the substance or mixture is being placed on the market require more than one language on the label, or simply because the packaging is too small or difficult to label because of its form/shape so that the full range of labelling elements even in a single language cannot be displayed.

In particular, it may be impossible for the label to be read horizontally when the package is set down normally or the label elements are of insufficient size and spacing as to be easily read.

In this situation the label elements defined under CLP Article 17 may be provided either on

- fold-out labels; or
- tie-on tags; or
- outer packaging.

Where one of the abovementioned alternatives is used, the part of the label which is directly attached to the packaging (fold-out labels), or the label on any inner packaging must contain at least: the hazard pictogram(s), the product identifier referred to in CLP Article 18 and the name and telephone number of the supplier of the substance or mixture. In this case the signal word, the hazard and precautionary statements as well as the supplemental label information may be omitted.

However, the use of the alternatives given above in bullet points is not allowed where a label becomes unreadable only because the supplier wishes to add more languages on a label than are required in the Member States where the substance or mixture is placed on the market.

5.3.1.1 Fold-out labels and tie-on tags

When a supplier recognises the need to use fold-out labels or tie-on tags, he should consider the following aspects:

General requirements for fold-out labels and tie-on tags

The CLP Regulation does not foresee any separate provisions for tie-on tags or fold-out labels. Both types of label must meet the same performance standards as any other "normal" label, namely:

- the label elements must be indelible, easy to read and stand out from the background;
- the size of the pictograms must be the same as the pictograms on the equivalent, normal label.

The fold-out label or tie-on tag must be securely attached to the packaging, i.e. the label remains attached to the packaging during reasonably expected handling of the package.

At least the following CLP information must be firmly attached to the immediate container:

- hazard pictograms,
- the product identifier and
- the name and telephone number of the supplier of the substance or mixture.

Compared to tie-on tags, the use of fold-out labels will probably be the preferred option as this will offer most space for the label elements in many cases. Some information relating to the content, quality and design of a fold-out label is given below. See also **Example 6** of this guidance where multilingual, fold-out label of a mixture for supply and use is presented.

Fold-out labels can also be an option (and are in fact commonly used) where the amount of obligatory supplemental labelling information required by other legislation would result in a label that is too large for the packaging. Fold-out labels may help to clearly structure the labelling information by using different pages for different types of information (see below).

Content, quality and design of a fold-out label

Content

A fold-out label generally consists of three parts, namely the front page (top leaf), inside page(s) and the back page (firmly attached to the packaging).

The label elements and information required by CLP Articles 17 and 32(6) should be included on the fold-out label in a way as described below. In accordance with Article 29(1) CLP, the labelling information can only be provided using fold-out labels where it is not possible to meet the requirements of Article 31 for a label in the languages of the Member State in which the substance or mixture is placed on the market.

- The **front page** must contain at least:
 - the product identified with the trade name or designation (Article 18(3)a); Please note that for mixtures, the product identifier on the front and back page does not need to specify all the components contributing to the classification of the mixture;
 - hazard pictogram(s) (Article 17(1)(d));
 - signal words in all languages of the label (Article 17(1)(e));
 - nominal quantity (packages made available to the general public, unless specified elsewhere in the package) (Article 17(1)(b));
 - contact details of supplier(s) (name, address and phone number) (Article 17(1)(a));
 - a reference to the full safety information inside the fold-out label, for example: "*safety information, see inside*" in all languages of the label or a symbol to inform a user that the label can be opened and to illustrate that additional information is available on inside pages (not in Article 17(1));
 - an abbreviation of the language (country code or language code); to avoid non-standard or confusing abbreviations it is recommended to use the language code according to e.g. ISO 639-1;
- **Inside page(s)** should contain:
 - full labelling information (except for the hazard pictogram and the supplier identification) as required by Article 17(1) of CLP (including supplemental information) for each language mentioned on the front page and grouped by language, for example one language per page;
 - an abbreviation of the language featured at the top of each of the inside pages (country code or language code).
- The **back page** should repeat the information given on the front page, except for the indication of the different languages in the inner layers.

Quality and design

There is no standard specified in CLP for label materials and performance of fold-out labels. However, sufficient quality of the fold-out label needs to be ensured. The exact manner in which this quality is ensured should be left to the discretion of the supplier, but attention should be paid to the following aspects:

- **Durability**

Taking into account the different situations that may occur during normal handling and use of the packaging (the contents of the package may dissolve the printing or the users may read the label several times), it is clear that the fold-out label must be sufficiently durable to maintain its

functionality under repeated use conditions (as applicable) for the entire life span of the product. This can be achieved for example by protective coating of the label and using plasticised pages.

The back page of a fold-out label should be firmly attached to the packaging to resist normal handling and use. The pages should not be easily detachable from each other.

- **Readability**

The information in the fold-out label should be easily read. In the case of a booklet, page numbers can be considered. The languages should be ordered in a logical way, e.g. alphabetically.

- **Easy access to the information**

The information in the fold-out label should be easily accessible by allowing easy opening and reclosing of the label by the user. This can be ensured for example by using a "Pull tab" – a small area of the label which allows lifting it easily from its backing sheet. Easy access to the information (and readability) can be also improved by featuring one language per inner page of the fold-out label.

5.3.1.2 Outer packaging

When a packaging is too small or in such a form or shape that the labelling requirements of Article 31 CLP cannot be met, one of the options provided by Article 29(1) is to label the outer packaging instead. This may be useful in the case of many small units within one outer packaging. In such cases the requirements that normally apply to labels (see CLP Articles 31 and 32) will also apply to the label area on the outer packaging.

When the outer packaging option is used, a distributor or retailer has to take care that all the label elements required by CLP are available when he places the single package units individually on the market.

5.3.2 Omission of certain label elements

In case it is impossible to meet the labelling requirements of Article 31 (because of the small size, shape or form) and the full label information³³ cannot be provided in fold-out labels, on tie-on tags or on an outer packaging, the label information may be **reduced** subject to certain conditions specified in section 1.5.2 of Annex I to CLP, namely for:

- packages where contents do not exceed 125 ml and the substance or mixture is classified in one of the hazard categories listed in **Table 7** below – this also refers to situations when a substance or mixture is re-filled into small volume bottles (125 ml or less) that are marketed afterwards, or where small volume bottles (125 ml or less) are no longer sold in outer packaging, but individually (see also sub-section 5.3.2.1 of this guidance);

³³ i.e. the information required by Article 17 of CLP

- soluble packaging for single use where contents do not exceed 25 ml (see also sub-section 5.3.2.2 of this guidance);

Label information may also be adapted for:

- inner packaging of substances and mixtures for scientific research and development or quality control analysis where the contents do not exceed 10 ml (see also sub-section 5.3.2.3 of this guidance);
- unpackaged hazardous substances or mixtures supplied to the general public (see also sub-section 5.3.2.4 of this guidance);
- environmental labelling (see also section 5.3.2.5 of this guidance).

5.3.2.1 Labelling of packages where the contents do not exceed 125 ml

The label elements mentioned in column 2 of **Table 7** may be omitted from the label of packages which do not exceed 125 ml of capacity where the substance or mixture is classified for the hazard classes or categories, as listed in column 1.

However, where the substance or mixture is classified under further hazard classes not listed, the label elements related to these other hazard classes still need to be included. Please refer also to section 1.5.2.1 of Annex I to CLP.

Table 7: Labelling exemptions for packages of a capacity of 125 ml or less

Classification of the substance or mixture	Allowed omissions according to section 1.5.2 of Annex I to CLP
Oxidising gases cat. 1 (H270)	hazard and precautionary statements for the hazard classes listed in column 1 <u>comment:</u> the hazard pictogram and signal word are required for the denoted hazard categories
Gases under pressure (H281)	
Flammable liquids cat. 2 or 3 (H224, H225)	
Flammable solids cat. 1 or 2 (H228)	
Self-reactive substances or mixtures, types C, D, E or F (H242)	
Self-heating substances or mixtures, cat. 2 (H252)	
Substances and mixtures which, in contact with water, emit flammable gases, cat. 1, 2 or 3 (H260, H261)	
Oxidising liquids cat. 2 or 3 (H272)	
Oxidising solids cat. 2 or 3 (H272)	
Organic peroxides, types C, D, E or F (H242)	

<p>Acute toxicity cat. 4 (H302, H312, H332) (if the substance or mixture is not supplied to the general public)</p> <p>Skin irritation cat. 2 (H315)</p> <p>Eye irritation cat. 2 (H319)</p> <p>STOT-SE cat. 2 or 3 (H371, H335, H336) (if the substance or mixture is not supplied to the general public)</p> <p>STOT-RE cat. 2 (H373) (if the substance or mixture is not supplied to the general public)</p> <p>Hazardous to the aquatic environment - Acute cat. 1 (H400)</p> <p>Hazardous to the aquatic environment – Chronic cat. 1 or 2 (H410, H411)</p>	
<p>Flammable gases cat.2 (H221)</p> <p>Reproductive toxicity: effects on or via lactation (H362)</p> <p>Hazardous to the aquatic environment - Chronic cat. 3 or 4 (H412, H413)</p>	<p>precautionary statements linked to the hazard classes listed in column 1</p> <p><u>comment:</u> the hazard statements and signal word must be provided as no hazard pictogram is required for the denoted hazard categories</p>
<p>Corrosive to metals (H290)</p>	<p>hazard pictogram, signal word, hazard and precautionary statements for this hazard class</p>

1

2 It should be noted that the exemptions regarding the labelling of small packages
3 of aerosols classified as flammable (Directive 75/324/EEC³⁴) apply to aerosol
4 dispensers.

5

6 **5.3.2.2 Labelling of soluble packaging for single use which does** 7 **not exceed a volume of 25 ml**

8 The soluble packaging exemption applies to soluble packaging where the content
9 does not exceed a volume of 25 ml. For such packaging the CLP label elements
10 required by CLP Article 17 may be omitted provided the packaging is intended for
11 single use and it is contained within an outer packaging that bears all label
12 elements required under Article 17 of CLP.

13 The exemption applies in cases where the substance or mixture contained is
14 classified exclusively for one or more of the hazards categories in sections
15 1.5.2.1.1 (b), 1.5.2.1.2 (b) or 1.5.2.1.3 (b) of Annex I to CLP (see **Table 7**

³⁴ Council Directive 75/324/EEC of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers, as amended by Commission Directive 94/1/EC and Commission Directive 2008/47/EC

above). However, this exemption does not apply to substances and mixtures within the scope of Regulation (EC) 1107/2009 (plant protection products) or Regulation (EU) No 528/2012 (biocidal products).

5.3.2.3 Labelling of inner packaging where the contents do not exceed 10 ml

The CLP label elements required by CLP Article 17 may be omitted from the inner packaging provided that all the following conditions are met:

- the content of inner packaging does not exceed a volume of 10 ml;
- the substance or mixture is placed on the market for supply to a distributor or downstream user for scientific research and development (SR&D)³⁵ or quality control analysis; and
- the inner packaging is contained within an outer packaging that contains all label elements required by Article 17.

However, it should be noted that the label on inner packaging must contain the product identifier and (if appropriate) the hazard pictograms; GHS01, GHS05, GHS06 and/or GHS08. In case more than two pictograms are assigned, GHS06 and GHS08 may take precedence over GHS01 and GHS05.

The exemption does not apply to substances and mixtures within the scope of Regulation (EC) 1107/2009 (plant protection products) or Regulation (EU) No 528/2012 (biocidal products).

5.3.2.4 Unpackaged hazardous substances or mixtures supplied to the general public

Labelling information about unpackaged chemicals sold to the general public must be made available to the customer, e.g. on an invoice or bill, see CLP Article 29(3). When the purchase of such substances or mixtures occurs at a different point in time than their delivery to the customer, one might also consider providing a leaflet which contains the relevant labelling information when delivering the substance or mixture, or sending the information electronically before or upon delivery. Article 29(3) provisions apply to substances listed in Part 5 of Annex II to CLP).

5.3.2.5 Environmental labelling

CLP includes the possibility to introduce exemptions from certain provisions on environmental labelling for certain mixtures classified as hazardous to the environment where it can be demonstrated that there would be a reduction in the environmental impact, see CLP Article 29(4). However, no such exemptions or specific provisions have been agreed to date. Once determined in accordance with the procedure referred to in CLP Articles 53 and 54, such exemptions or specific provisions would be defined in Part 2 of Annex II to CLP.

³⁵ For more information on substances manufactured, imported or used in scientific Research and Development (SR&D) please consult ECHA *Guidance on Scientific Research and Development (SR&D) and Product and Process Orientated Research and Development (PPORD)*.

5.4 Interaction between the CLP and the transport labelling rules

5.4.1 Specific rules for labelling of outer packaging, inner packaging and single packaging

Article 33 of the CLP Regulation sets out specific rules for situations where the packaging of hazardous substances and mixtures is also required to meet the labelling provisions in accordance with the rules on the transport of dangerous goods. The transport labelling provisions are set out in the UN Recommendations on the Transport of Dangerous Goods – Model Regulations. Transport labelling as referred to in CLP Article 33 includes all labels and marks required by e.g. Directive 2008/68/EC³⁶, for example the mark for environmentally hazardous substances, elevated temperature marks or limited/exempted quantities marks.

A basic principle of CLP is not to override any labelling required by the transport rules while maintaining essential hazard information on the relevant layer(s) of packaging.

CLP labelling is normally required on every inner and intermediate layer of the packaging of a substance or mixture; it may also appear on an outer packaging.

Transport labelling will have to appear on the outer packaging of hazardous substances and mixtures if these are “dangerous goods” according to the rules on the transport of dangerous goods. The CLP label may then be omitted.

Single packages need to carry both the CLP label elements and the transport labelling. If a CLP hazard pictogram on single or outer packaging relates to the same hazard as in the rules for the transport of dangerous goods, the CLP pictogram may be omitted to avoid unnecessary double labelling.

While CLP may not require outer packaging to carry the CLP label elements where it already carries the corresponding transport labelling, a supplier may choose to apply to the outer packaging the full CLP label that is on the inner or intermediate packaging. This option may need to be considered where the substance or mixture is classified for a hazard that is not covered by the rules on the transport of dangerous goods – e.g. for skin and eye irritation, CMR or for the aquatic chronic hazards category 3 and 4. However, CLP labelling on the outer packaging is not obligatory in this case.

Where the outer packaging does not need to carry labelling in accordance with the rules on the transport of dangerous goods (including transport labelling such as limited/exempted quantity marks) both the inner/intermediate and the outer packaging must be labelled according to the CLP requirements (Article 33(2)).

The assumption underlying the abovementioned provisions has been that only one substance or mixture is contained in combined outer packaging.

However, where the outer packaging is transparent, all CLP label elements can be omitted from it where the CLP label beneath the transparent layer is clearly visible (Article 33(2) of CLP).

The legal requirements of CLP Article 33 and the decisions involved when dealing with them are depicted in the **Figure 5**.

³⁶ Directive 2008/68/EC for the inland transport of dangerous goods (road and rail).

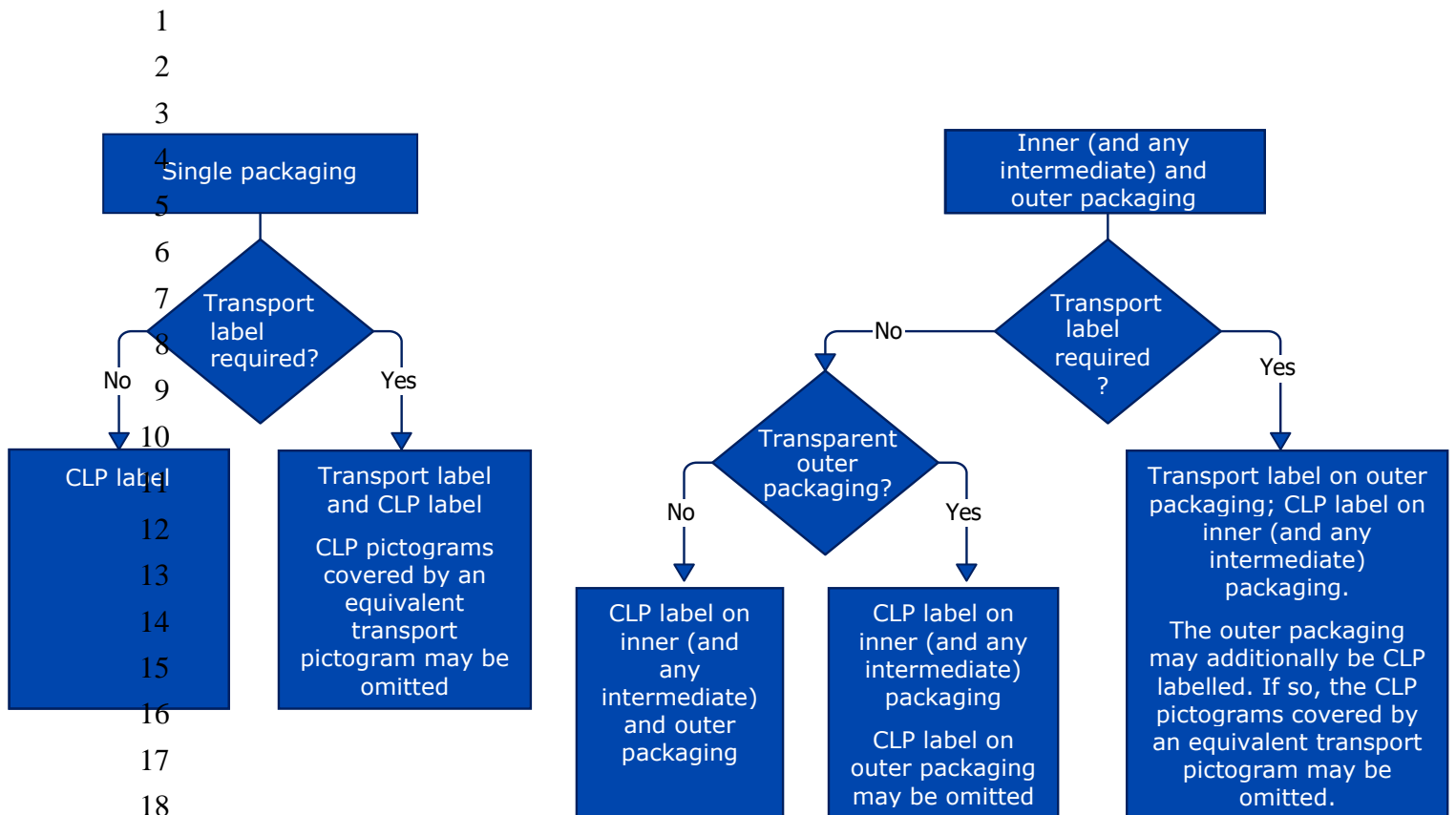


Figure 5: Decision flowchart for the application of CLP and transport labelling for single packaging (left) and combination packaging (right)

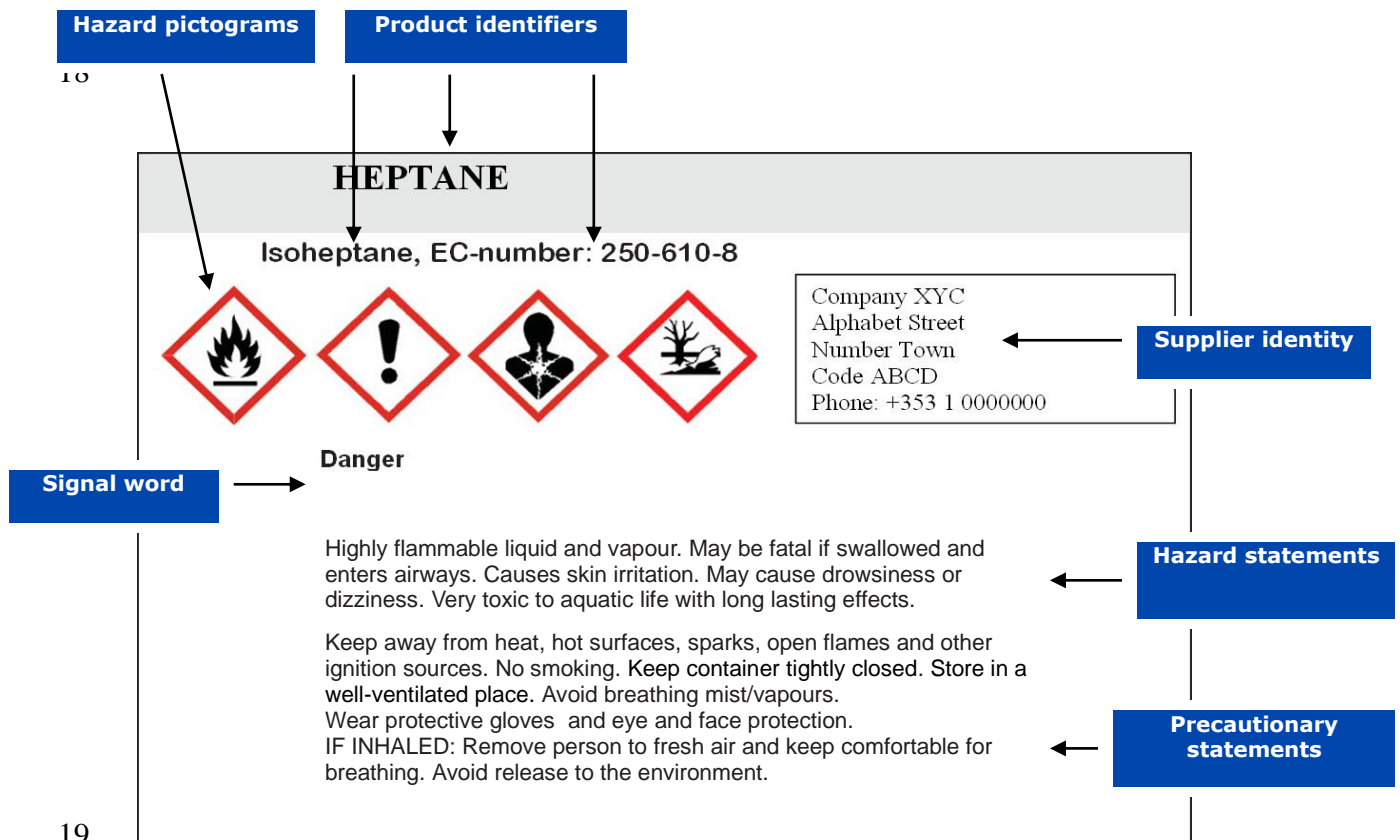
6. Example labels

In this section 11 examples are provided to illustrate different situations that may be encountered when designing labels.

Please note that each of the labels below serves only as an example of how to arrange the elements on the label in a given situation. The arrangements shown are not exhaustive or mandatory in all aspects. The dimensions of labels and label elements shown below are not necessarily the actual dimensions.

Example 1: Single language label of a substance (not for the general public)

This example represents a simple label of a substance for supply and use which takes into account the CLP label elements only. It shows the CLP terminology and pictograms in accordance with CLP Article 17(a) and (c) to (g), i.e. the product identifiers, the identity of the supplier, the signal word, the hazard pictograms, the hazard and the precautionary statements. As the substance is not supplied to the general public, the nominal quantity of the substance contained in the package is not required on the label.



1 Considering the industrial/professional use the combined statement P301 + P310
2 has been omitted from the label. To further reduce the number of the P-
3 statements and the amount of digestible information on the label, the statements
4 P391 has been also omitted from the label, as the prevention statements for the
5 physical and health hazards appear to contain the more urgent advice for the
6 label. The final selection of the P-statements resulted in a 6 P-statements
7 compared to the starting set of 8 P-statements.

8 All the P-statements (including the P-statements de-selected from the label)
9 would have to be included in the SDS, under heading 2.2 ("Label elements") to
10 provide the industrial or professional user with sufficient information to handle the
11 substance safely.

13 **Example 2: Multi-language label of a substance containing** 14 **non-obligatory supplemental information (not for the** 15 **general public)**

16 The example label given below represents a multi-language label for supply and
17 use. It shows the CLP terminology and pictograms in accordance with CLP Article
18 17(a) and (c) to (h), i.e. the product identifier, the identity of the supplier, the
19 hazard pictograms, the signal words and the hazard and precautionary
20 statements in four languages.

21 As the substance is not supplied to the general public, the nominal quantity of the
22 substance contained in the package is not required on the label.

23 In accordance with CLP Article 32(3), the hazard and precautionary statements of
24 one language are located together on the label. A section for supplemental
25 labelling is included on the left-hand side of the label including non-obligatory
26 supplemental labelling information.

27 As to the lay-out, the label is an authentic label designed for a 2.5 litre bottle.
28 Given that the real dimensions are slightly larger than depicted here, there is still
29 potential to optimise the structuring of the information, e.g. by using a more
30 prominent place for the signal word or larger letters for H- and P-statements.
31 Based on the minimum dimensions for the label area, which would be at least 52
32 mm x 74 mm, the size of each of the pictograms is supposed to be at least 257
33 mm², corresponding to a side length of 16 mm, on the real label ([sub-section 5.2](#)
34 of this guidance).

35 If the section for supplemental labelling is increased (for example to incorporate
36 information related to the use of the substance), the overall area of the label and
37 the size of its elements may have to be increased as well, in particular the letter
38 size of the signal words, hazard and precautionary statements. Such an increase
39 would warrant the legibility of the obligatory label information which appears in
40 multiple languages. In this case it may be wise also to increase the size of the
41 pictograms.



Example 3: Single language label of a mixture containing both obligatory and non-obligatory supplemental information (supplied to the general public)

The example label given below illustrates the supply and use label for a typical consumer product (detergent).

All obligatory labelling information is shown, i.e. the product identifiers (trade name and designation of the mixture; one of them would have been sufficient), the identity of the supplier, the signal word, the hazard and precautionary statements and the obligatory supplemental information, in accordance with Regulation (EC) No 648/2004 on detergents. Please note that supplemental label information according to CLP is grouped together whilst the other supplemental information (in this case the bar code) is located in another place.

No P-statement on disposal is given as this is not required for a mixture classified as eye irritant.

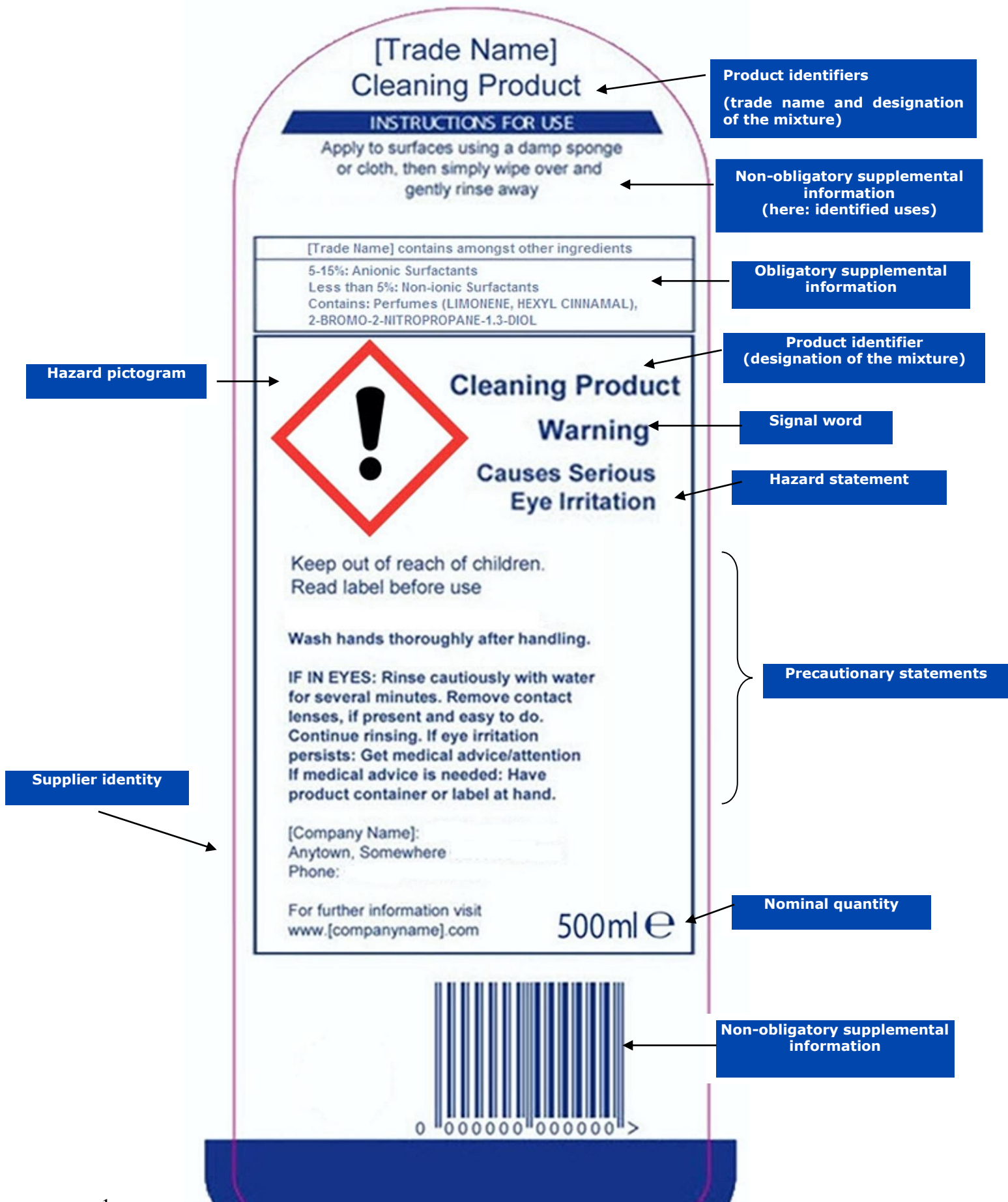
As the product is supplied to the general public, its nominal quantity is also provided on the label. Beyond the obligatory supplemental information, also some non-obligatory supplemental information is shown.

This label clearly separates the obligatory information as required by CLP and other Community legislation from the non-obligatory elements. The former is delineated by two text boxes, with the "CLP box" being located in a central, eye-catching position on the label. The non-obligatory label elements can be found in the lower part of the label and in the upper part, under the headline "instructions for use".

The label as depicted here has a real size of 165 mm x 72 mm; the area of the label that contains the obligatory label elements, i.e. the two boxes and the nominal quantity, is about 98 mm x 72 mm. In principle the area covered by the text block "For further information visit ..." must be subtracted; on the other hand, approximately the same area covered by the line "trade name" should be added, so there is overall no change.

The label is larger than the minimum dimensions required by CLP, which is at least 52 mm x 74 mm for a 500 ml bottle. The pictogram is larger than the requested minimum area of 1 cm².

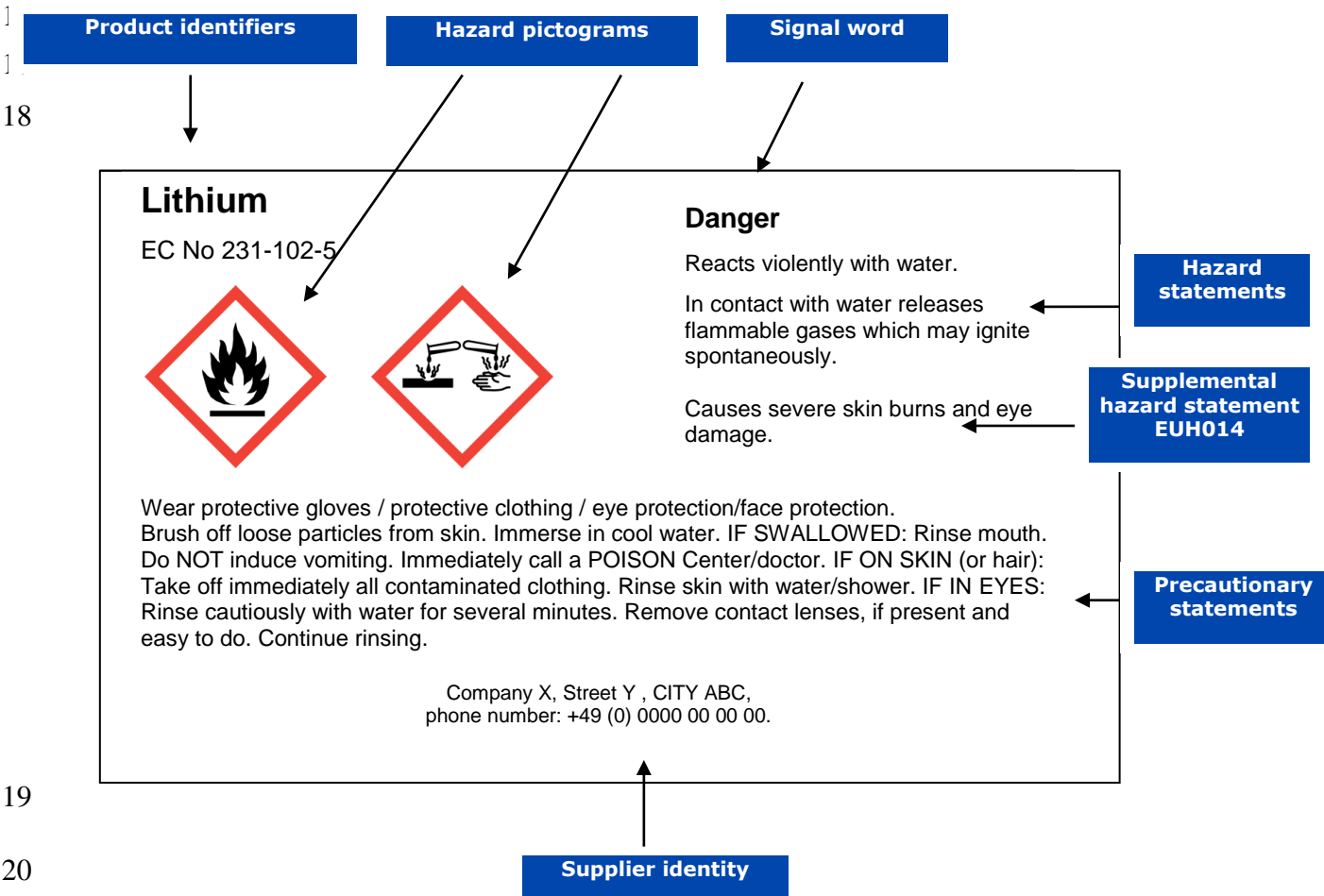
The label shown is primarily drafted for inner packaging. If the chemical is contained in combination (= inner + outer) packaging, the same information has to be shown on the outer packaging, unless the information on the inner packaging can be seen through the outer packaging.



Example 4: Single language label of a substance containing supplemental hazard statements (not for the general public)

The example below illustrates the label of lithium (EC No 231-102-5) for supply and use. A harmonised classification (Water-react. cat. 1, Skin corr. cat. 1B) as well as the supplemental hazard statement EUH014 are assigned through Annex VI to CLP. No other available, reliable information was found that identified any further hazards. The substance is not intended to be used by the general public; it is supplied in a 1 l package.

All obligatory labelling information is shown, i.e. the product identifiers, the identity of the supplier, the hazard pictograms, the signal word, the hazard and precautionary statements and the supplemental hazard statement EUH014, in accordance with Table 3.1 of Annex VI to CLP. Although EUH014 is supposed to be supplemental information only, it is intentionally placed close to the regular CLP hazard statements to reinforce the message provided by the latter.



Example 5: Multi-language label of a mixture containing both obligatory and non-obligatory supplemental information (supplied to the general public)

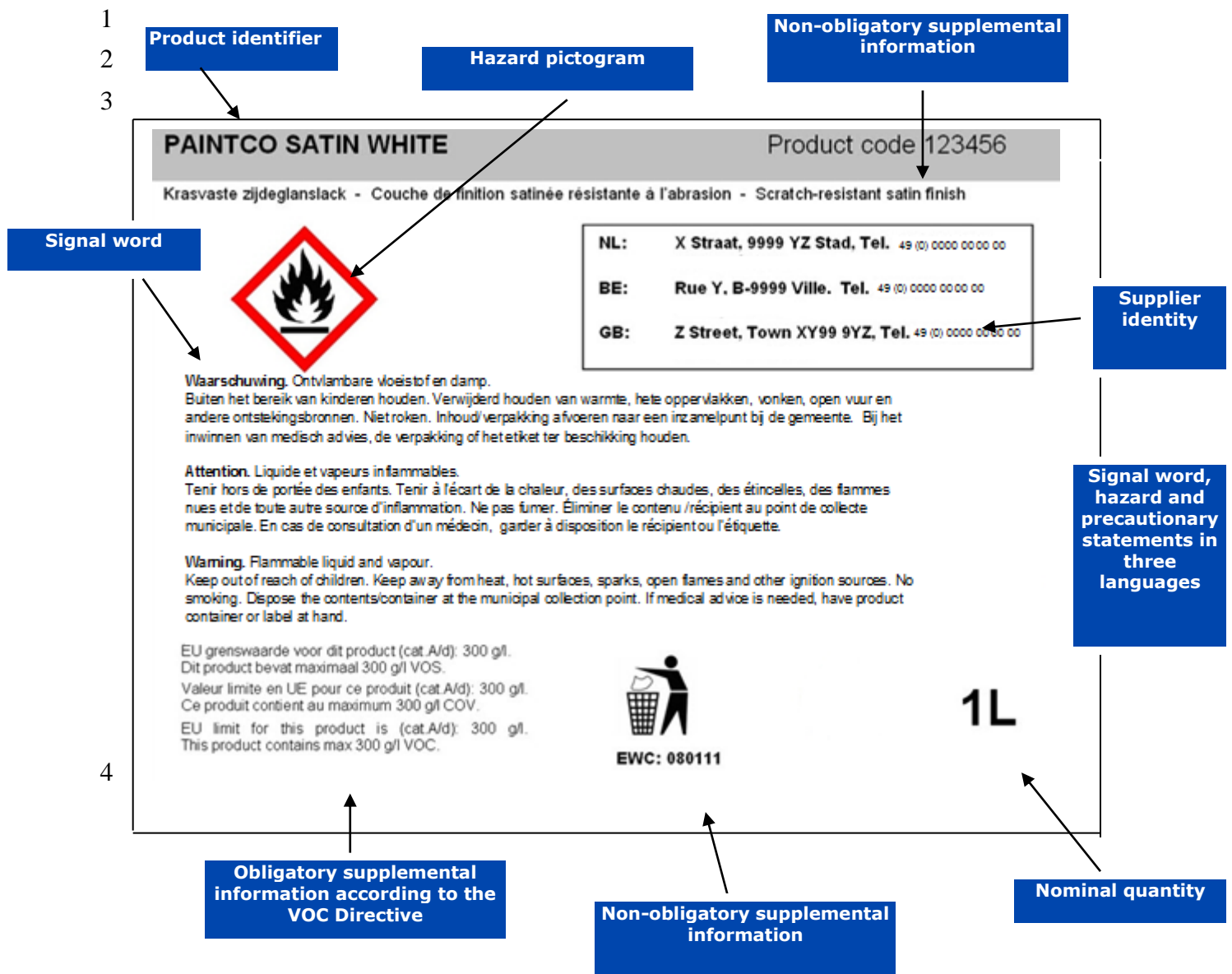
Example 5 represents a draft multi-language label of a typical consumer chemical (decorative paint) for supply and use.

All obligatory labelling information is shown, i.e. the product identifiers, the identity of the supplier, the signal word, the hazard and precautionary statements and the obligatory supplemental information, in particular information in accordance with Directive 2004/42/EC on the limitation of emissions of volatile organic compounds (VOC) due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products.

In accordance with CLP Article 32(3), the hazard and precautionary statements of one language are located together on the label. As the chemical is supplied to the general public, its nominal quantity is also provided on the label. Beyond the obligatory label elements, non-obligatory supplemental information is shown.

This example label separates the CLP label elements from the supplemental information. The CLP label elements are located in a more eye-catching position on the label while the supplemental information can be found rather in the margins of the label. The texts reflecting the supplemental information appear in slightly smaller letters than the CLP label elements.

The size of this label is intended to be 125 mm x 150 mm when applied on the packaging. This means that the real label will be considerably larger than the minimum dimensions for a 1 l package (52 x 74 mm) required under CLP. The pictogram size of 19 x 19 mm is less than 1/15th of the whole label, but greater than 1/15th of the minimum dimensions.



Example 6: Fold-out label of a mixture (supplied to the general public)

The example below represents a multilingual, fold-out label of a mixture for supply and use, intended for the general public.

The label of this mixture is required to bear a large number of obligatory CLP label elements, namely three hazard pictograms, three hazard statements and numerous precautionary statements subject to the principles of precedence. It was impossible to put all these label elements on the immediate container due to its shape and size (plastic container of 100 ml capacity). Therefore, the supplier has decided to choose the fold-out label as a solution to address all the labelling problems encountered. The label elements are included on the label in the following way:

Front page

- trade name or designation,
- hazard pictograms,
- signal words in all languages of the label,
- nominal quantity, as the mixture is made available to the general public,
- contact details of supplier,
- reference to the full safety information inside (in this case the front page contains the symbol of an arrow to illustrate that the full safety information is available on inside pages),
- country codes indicating which languages are covered by the label

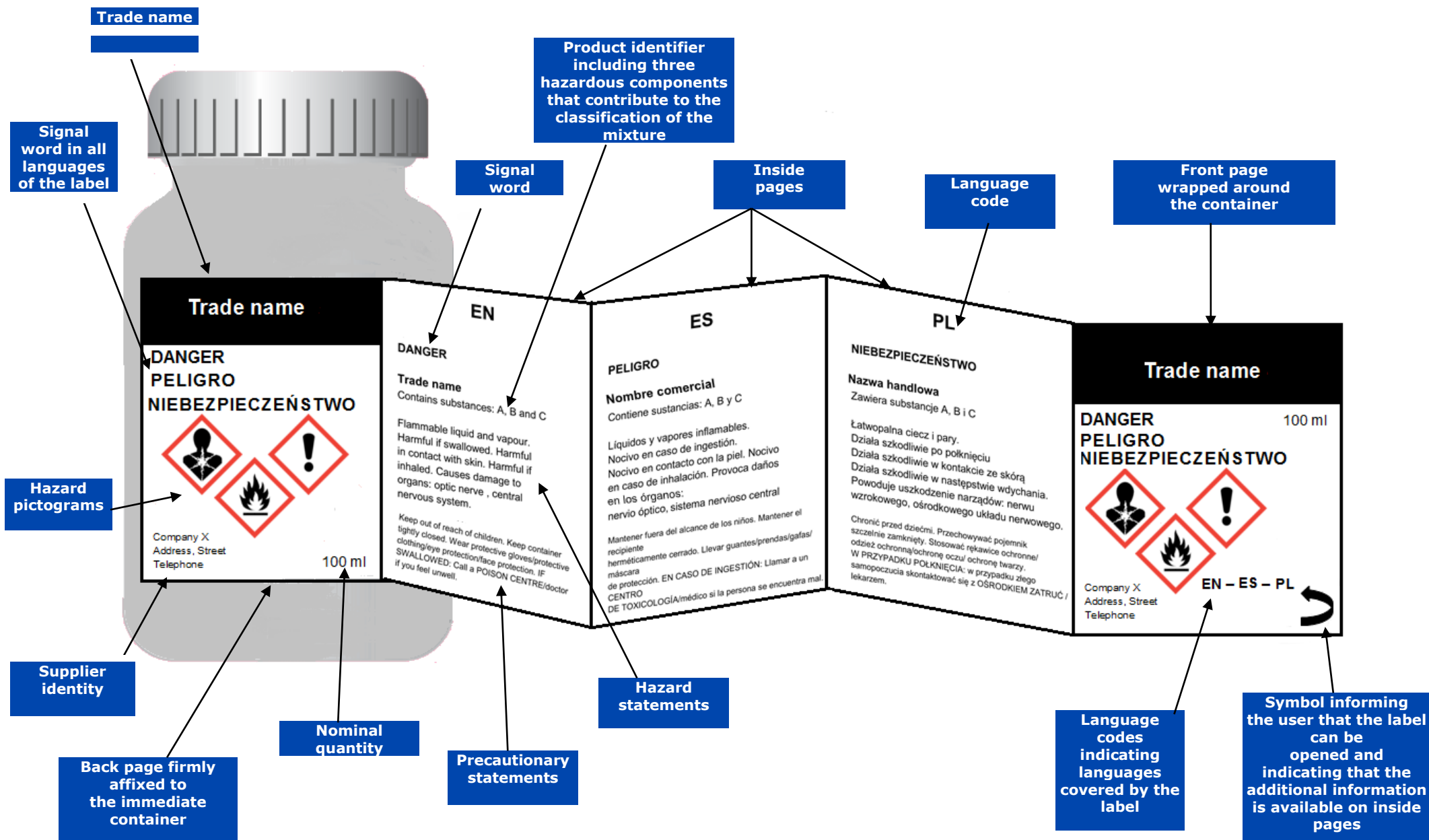
Inside pages

- full product identifier (including hazardous compounds A, B and C in this particular case),
- signal word,
- hazard statements,
- precautionary statements,

The full safety information on inside pages is given in each language mentioned on the front page and also grouped by language. The country codes are featured on the top of each inner page to enable the user to quickly identify his language.

Back page (attached to the immediate container)

- trade name or designation,
- hazard pictograms,
- signal word,
- nominal quantity,
- contact details of supplier.



6.1 Packaging that is small or difficult to label

The example labels in this sub-section are authentic; they are applied on inner packaging only because the package is transported in larger consignments with specific outside labelling in accordance with the rules on the transport of dangerous goods. Please note that the labelling exemptions only apply if the alternative labelling on fold-out labels, tie-on tags or outer packaging is technically not feasible.

Example 7: n-Hexane in a 8 ml bottle (not for the general public)

The example given below represents a two-language label in Finnish and Swedish for small packaging for the substance n-hexane. Both languages are required in Finland. According to Annex VI to CLP, the substance is assigned the following classifications:

Flam. Liq. 2	H225 Highly flammable liquid and vapour
Repr. 2	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))
Asp. Tox. 1	H304 May be fatal if swallowed and enters airways
STOT-RE 2	H373 May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
Skin Irrit. 2	H315 Causes skin irritation
STOT SE 3	H336 May cause drowsiness or dizziness
Aquatic Chronic 2	H411 Toxic to aquatic life with long lasting effects

Based on CLP Article 17, many labelling elements would be required. The bottle containing the substance is placed on the market individually. Since it is assumed for this example that the labelling information cannot be accommodated on a fold-out label, tie-on tag or on outer packaging, the supplier is allowed to apply the small packaging exemptions outlined in section 1.5.2 of Annex I to CLP.

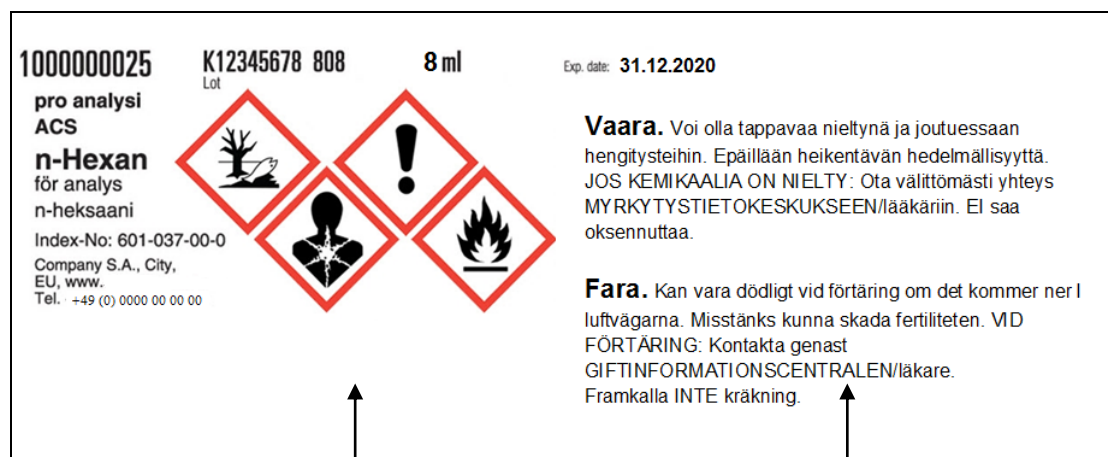
Accordingly, the hazard and precautionary statements pertaining to the following hazard classes and categories:

Flam. Liq. 2, STOT-RE 2, Skin Irrit. 2, STOT-SE 3 and Aquatic Chronic 2 may be omitted from the label. However, and in line with CLP, the hazard pictograms: GHS02, GHS07, GHS08 and GHS09 were retained for these hazards.

No small packaging exemptions apply to the following hazards classes and categories: Repr.2 and Asp. Tox. 1. This means that the pictograms and the

hazard and precautionary statements pertaining to these hazard classes and categories have been retained.

The precautionary statements have obviously been reduced, following CLP Article 22 and 28. For example, the statement P501 (Dispose of contents/container to ...) was not included because the substance is neither supplied to the general public nor are there specific disposal requirements above the normal expectation for the disposal of chemicals (see also [section 7](#) of this guidance). Out of a set of originally 20 different precautionary statements, finally only one single (combination) statement, namely P301+P310+P331 (IF SWALLOWED: Immediately call a POISON CENTRE/doctor. Do NOT induce vomiting.) remains on the label. In accordance with CLP Article 32(3), the hazard statements of one language as well as the precautionary statements, respectively, are located together on the label. Finally, the signal word "Danger" (Finnish: Vaara; Swedish: Fara) was selected, in line with the applicable precedence rule.

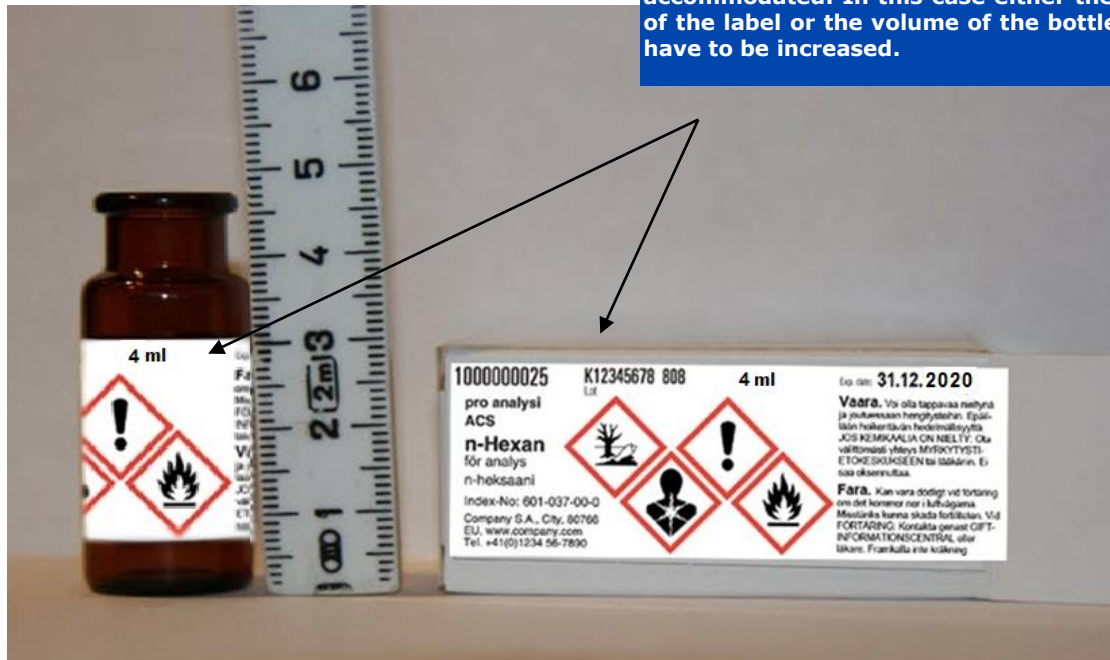


No omissions, but full range of hazard pictograms

Small packaging exemptions: reduced set of hazard and precautionary statements, grouped together on the label by language.

If the real dimensions of the label are 32 x 95 mm it can accommodate four pictograms of the required minimum size of 1 cm². This may not always be possible for even smaller packaging volumes, e.g. a bottle volume of 4 ml, see below. In order to maintain the required minimum size of 1 cm² for the hazard pictograms in such cases, either the size of the label or the volume of the bottle as such will have to be increased. It may not be warranted to reduce the letter size of the texts as this will very probably decrease their legibility.

Due to space constraints on small volume packaging, pictograms of the required minimum size of 1 cm² cannot always be accommodated. In this case either the size of the label or the volume of the bottle will have to be increased.



Example 8: Hazardous solid substance in a 100 ml bottle (not intended for the general public)

This example represents a one-language label for small packaging for a solid substance Y which is assigned the following classifications:

Ox. Sol. 2	H272 May intensify fire; oxidiser
Carc. 1B	H350 May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
Muta 1B	H340 May cause genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
Repr. 1B	H360 May damage fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
Acute Tox. 2 (inhalation)	H330 Fatal if inhaled
Acute Tox. 3 (oral)	H301 Toxic if swallowed
STOT RE 1	H372 Causes damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
Acute Tox. 4 (dermal)	H312 Harmful in contact with skin
Skin Corr. 1B	H314 Causes severe skin burns and eye damage
Resp. sens. 1	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin sens. 1	H317 May cause an allergic skin reaction
Aquatic Acute 1	H400 Very toxic to aquatic life
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects

Pursuant to CLP Article 17, a lot of labelling information would be required. Similarly to the previous example, it is assumed that the supplier is allowed to use the small packaging exemptions outlined in section 1.5.2 of Annex I to CLP.

Substance Y is not presumed to be listed in Annex VI to CLP, nor in the Classification and Labelling Inventory. Therefore, only the product identifiers referred to in CLP Article 18(2)(c) need to be provided, i.e. the CAS number (if available, see CLP Article 18(2)(d)) and the IUPAC or another international name.

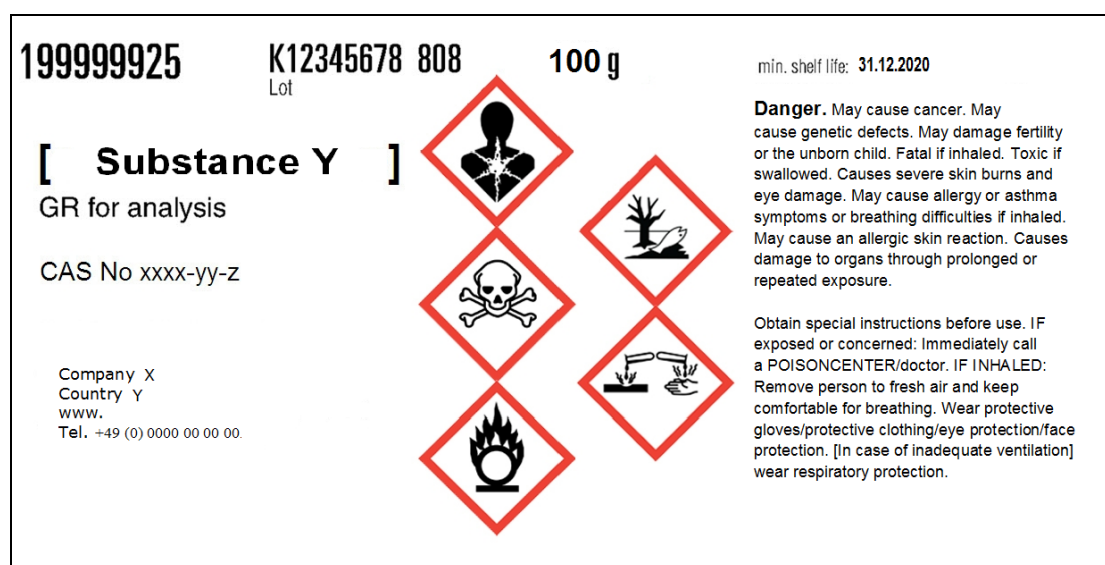
In accordance with the small packaging exemptions outlined in section 1.5.2 of Annex I to CLP, only the hazard and precautionary statements pertaining to the following hazard classes and categories:

Ox. Sol. 2, Acute Tox. 4, Aquatic Acute 1, and Aquatic Chronic 1

may be omitted from the label. This means that for all the other hazards listed above all the label elements that are required under CLP Title II have to appear on the label.

The precautionary statements on the example label below start with "Obtain special instructions before use." A significant reduction has been performed for the precautionary statements, based on Articles 22 and 28 of CLP. After application of the small packaging exemptions and the selection of the most appropriate set of precautionary statements, only five (combined) statements were chosen for the label, out of about 30 precautionary statements.

In addition to the hazard and precautionary statements, five different hazard pictograms are required for the label, namely GHS03, GHS05, GHS06, GHS08 and GHS09.



Due to the severity of the hazards, substantial reduction of the hazard statements is not possible. The number of the precautionary statements however, has been substantially reduced.

Example 9: Supply and transport label for a single package (not intended for the general public)

This example illustrates the provisions of CLP Article 33(3) and represents a label for a hazardous mixture which is assigned the following classifications:

Flam. Liq. 2	H225 Highly flammable liquid and vapour
Acute Tox. (dermal) 3	H311 Toxic in contact with skin
Skin irrit. 2	H315 Causes skin irritation
STOT SE 3	H335 May cause respiratory irritation
STOT SE 3	H336 May cause drowsiness or dizziness
STOT RE 2	H373 May cause damage to organs (state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
Asp. Tox. 1	H304 May be fatal if swallowed and enters airways
Aquatic Acute 1	H400 Very toxic to aquatic life
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects

The mixture is intended to be supplied in single packaging, such as a 200 litre drum. This means that both the CLP and the transport label elements must be shown on the packaging. The mixture is not intended to be used by the general public.

In this case the supplier has chosen to include the transport label elements and marks together with the CLP labelling elements on a joint label. This common label would be large enough to conform to the specifications set out in ADR (e.g. minimum dimensions of 100mm x 100mm).

In relation to the CLP hazard pictograms GHS06 and GHS07, only GHS06 needs to be displayed, in accordance with the precedence rule set out in CLP Article 26(1)(b). However, the supplier has omitted the CLP hazard pictograms GHS06 and GHS02, as the underlying hazard classes and categories are already covered by the corresponding transport pictograms.

1

Product identifier

CLP hazard pictogram

Transport labelling

Product identifier including substances that contribute to the classification of the mixture as acutely toxic, STOT-RE and toxic by aspiration

TOXIFLAM
(Contains X, Y)



Signal word

Danger

Hazard statements

Highly flammable liquid and vapour.
Toxic in contact with skin.
Causes skin irritation.
May cause respiratory irritation.
May cause damage to liver, testis through prolonged or repeated exposure.
May be fatal if swallowed and enters airways.
Very toxic to aquatic life with long lasting effects.
May cause drowsiness or dizziness.

Precautionary statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking. Wear protective gloves and clothing and eye protection. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.
Avoid release to the environment.
Dispose of container to the municipal collection point.

Space for further supplemental information (e.g. instructions for use)

See safety data sheet for further details regarding safe use.

Supplier Identity

Manufactured by

Company X,
Street Y,
Town Z
Code 00000,
Tel: +49(0)0000000000.

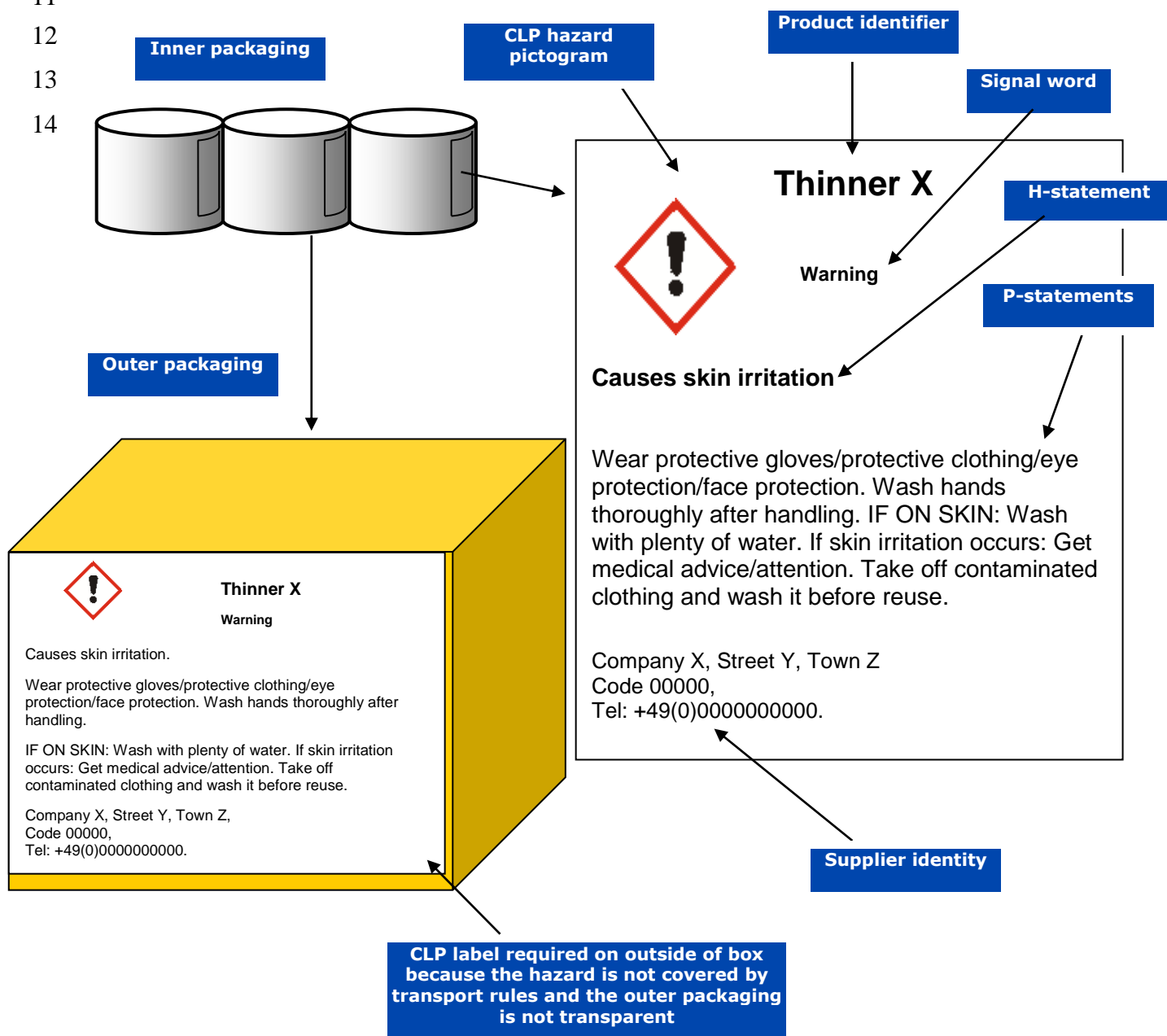


UNXXXX

[Proper Shipping Name]

Example 10: Labelling of a mixture that is transported on land in outer and inner packaging (not intended for the general public)

This example illustrates the provisions of CLP Article 33(2). It is an example of a mixture which is classified and labelled under CLP, but not according to the rules on the transport of dangerous goods. The mixture is transported on land and is contained in an inner packaging (cans) which is itself contained in outer packaging (box) which is not transparent. This means that the same labelling information has to be provided both on the inner packaging and on the outer packaging. The mixture is not intended to be used by the general public.



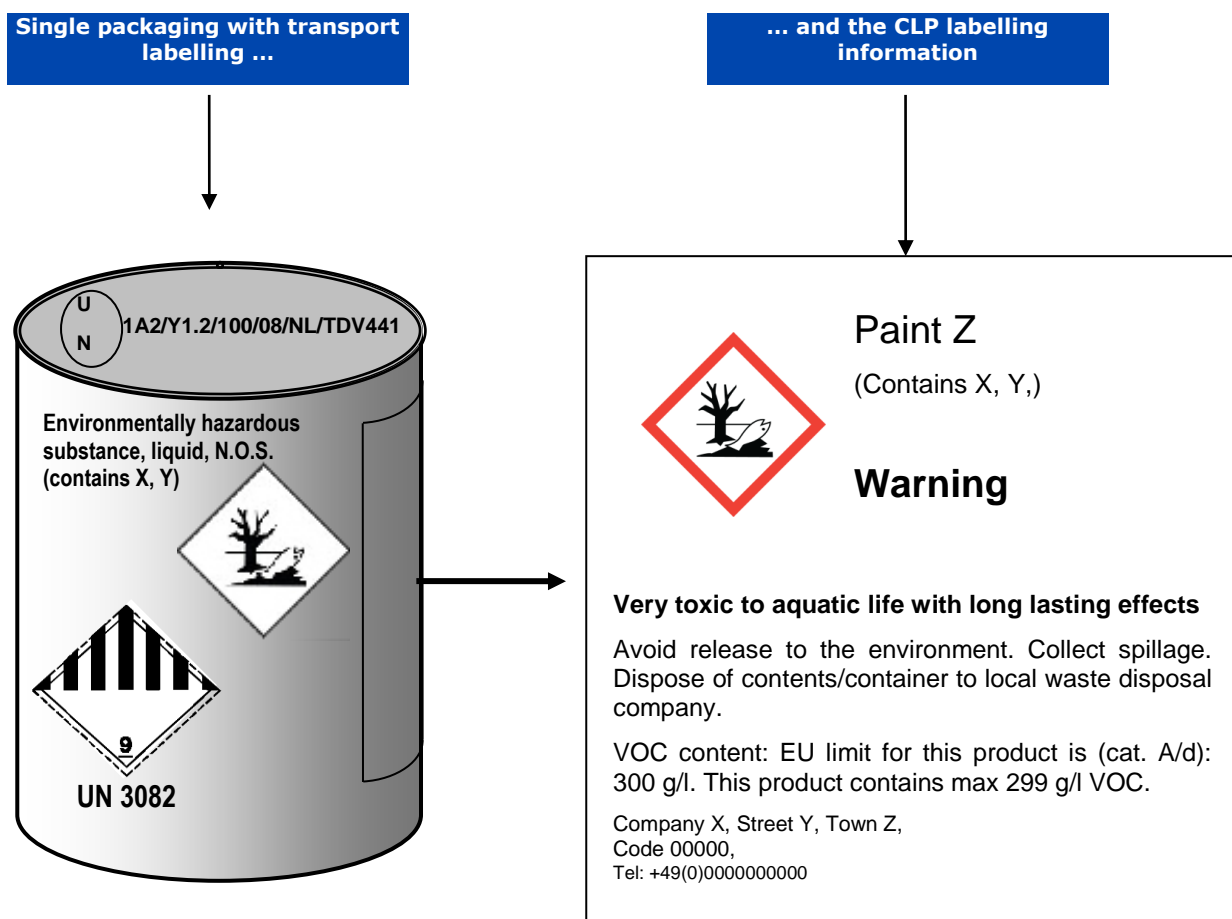
Example 11: Labelling of a mixture that is transported on land in single packaging (not intended for the general public)

This example illustrates the provisions related to the labelling of single packaging in accordance with CLP Article 33(3). It is an example of a chemical that is classified and labelled in accordance with the rules on the transport of dangerous goods and under CLP. The chemical is transported on land in single packaging (can). It is not intended to be used by the general public.

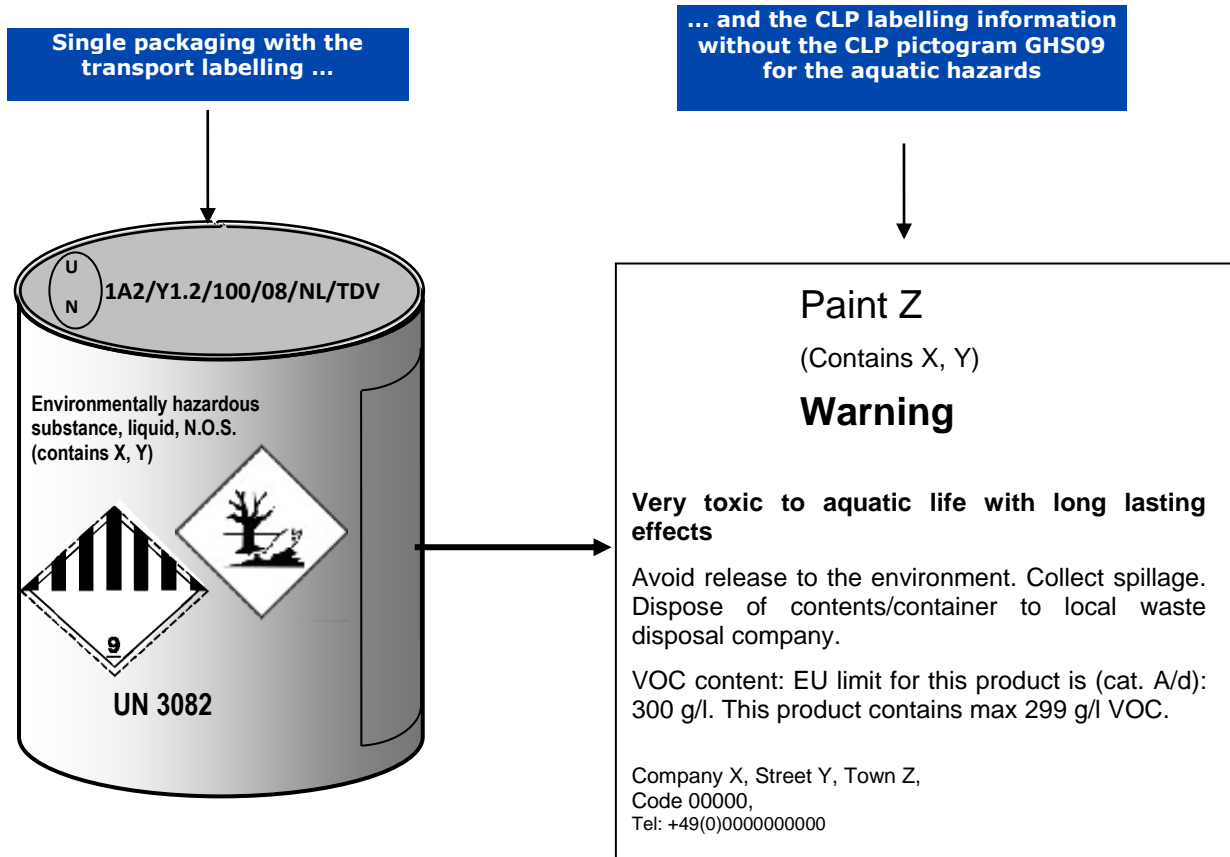
In this example the full CLP labelling information is provided by means of a separate label, in addition to the transport labelling information (version 1).

The CLP hazard pictogram GHS09 may be omitted from the packaging because it relates to the same hazards as the "dead tree – dead fish" transport mark (version 2).

Version 1:



1 **Version 2:**



2

6.2 Specific case: labelling of two-component products

In certain specific cases the packaging of the product can be so unique that it is difficult to meet the CLP labelling requirements. An example of such a situation has been given below. Please note that the example only illustrates the general aspects of labelling of two component products and is not intended to present the correct selection of appropriate label elements.

Picture 1. Two-component adhesive sold as a kit (below) shows an example of a popular two-component adhesive consisting of two mixtures, namely an epoxy resin (Part A) and a hardener (Part B). The two mixtures are placed in separate containers which are fixed together and sold as a kit in transparent outer packaging. When used, the content of both containers is mixed by extrusion. Part A and Part B react to produce a final mixture which can be used as an adhesive for a wide range of materials.



In this type of situation two separate labels need to be affixed to the containers (one label for each mixture (in a container)). The hazard information provided on the labels must relate to the form/physical states in which both mixtures (Part A and Part B) are placed on the market. The outer packaging of the whole kit need not be labelled, as it is transparent and permits the inner packaging (both containers) to be clearly seen.

If the product formed during end-use is hazardous (with different properties to the mixtures in the containers), sufficient instructions to enable safe use must be provided to the user. The instructions can for example be provided on the label or as a separate leaflet in the package.

If such a product is not intended for the general public, two separate safety data sheets should be provided to enable the users to meet their responsibilities in relation to the management of risks arising from the use of the reaction product that occur upon the end use of the two mixtures (i.e. the adhesive).

As the adhesive in the example is also classified as hazardous, the relevant information about the risk management measures should be provided in the SDSs.

Please note: a case-by-case judgement may be necessary when determining the labelling requirements for similar, unique packagings. The information should not confuse the user and the label should be easily understandable.

7. Guidance on the selection of precautionary statements for the CLP hazard label

7.1 Introduction

Based on the UN GHS, the CLP Regulation assigns precautionary statements to all hazard classes for the purpose of the safe supply and use of a substance or mixture. Based on CLP Article 4, suppliers have to select precautionary statements for the CLP hazard label. Suppliers can be the following:

- manufacturers or importers of substances,
- importers of mixtures;
- downstream users of substances or mixtures (including formulators),
- distributors (including retailers) of substances or mixtures, and
- producers or importers of explosive articles as defined in Part 2.1 of Annex I to CLP.

The selection of precautionary statements must be done based on CLP Articles 22 and 28 and CLP Annex IV:

Article 22

Precautionary statements

1. *The label shall include the relevant precautionary statements.*
2. *The precautionary statements shall be selected from those set out in the tables in Parts 2 to 5 of Annex I indicating the label elements for each hazard class.*
3. *The precautionary statements shall be selected in accordance with the criteria laid down in Part 1 of Annex IV taking into account the hazard statements and the intended or identified use or uses of the substance or the mixture.*
4. *The precautionary statements shall be worded in accordance with Part 2 of Annex IV.*

Article 28

Principles of precedence for precautionary statements

1. *Where the selection of the precautionary statements results in certain precautionary statements being clearly redundant or unnecessary given the specific substance, mixture or packaging, such statements shall be omitted from the label.*
2. *Where the substance or mixture is supplied to the general public, one precautionary statement addressing the disposal of that substance or mixture as well as the disposal of packaging shall appear on the label, unless not required under Article 22. In all other cases, a precautionary statement addressing disposal shall not be required, where it is clear that the disposal of the substance or mixture or the packaging does not present a hazard to human health or the environment.*
3. *Not more than six precautionary statements shall appear on the label, unless necessary to reflect the nature and the severity of the hazards.*

Annex IV

"In selecting the precautionary statements in accordance with Articles 22 and 28(3), suppliers may combine the precautionary statements in the tables [of Annex IV], having regard to clarity and comprehensibility of the precautionary advice. (...)."

Neither the UN GHS nor the CLP Regulation provide for clear-cut rules on how to select precautionary statements for the label (apart from the provisions of Articles 22 and 28 and the basic instructions given in the columns specifying the conditions for use in tables 6.1-6.5 of Annex IV to CLP).

On the other hand, the number of precautionary statements under CLP/GHS has more than doubled when compared to the number of S-phrases under DSD. In a situation where selection rules are missing, an average hazardous substance listed in Annex VI to CLP could easily be assigned more than 20 precautionary statements on the label, based on the hazards of the substance ([sub-section 3.4](#) of this guidance). CLP requires that normally³⁷ not more than six precautionary statements must appear on the label. Therefore, a substantial reduction of the number of precautionary statements must be performed, based on effective selection rules.

7.2 Methodology

The selection of precautionary statements under CLP is based on:

- the provisions set out in CLP Articles 22 and 28 and
- the basic instructions provided in the columns containing the conditions for use in tables 6.1-6.5 of Annex IV to CLP and
- the instructions mentioned directly under the precautionary statements in the selection tables ([sub-section 7.3](#) of this guidance).

The following approach was chosen for the selection of the precautionary statements under CLP:

- The P-statements³⁸ should be selected in accordance with the rules outlined in Article 28 and Part 1 of Annex IV;
- The selection of P-statements should take into account the underlying hazards and identified or foreseen conditions for use of a substance or mixture;
- The P-statements assignment follows a “traffic light” system. The conditions for use described in this guidance document distinguish between precautionary statements that are “highly recommended”, “recommended”, “optional” and “not to be used” for the hazard label;
- A particular recommendation should be seen in the light of the original CLP conditions for use specified under the relevant precautionary statement in the selection tables:
- Unlike DSD, the CLP includes one mandatory precautionary statement relating to disposal, namely P501 (Dispose of contents/container to ...) for substances or mixtures supplied for the general public;
- Two target groups: the general public and the industrial/professional users are specified under CLP. Where there is no explicit mention of the target

³⁷ Unless necessary to reflect the nature and the severity of the hazards.

³⁸ Corresponding but not always identical to the former safety phrases (S-phrases) under DSD.

group, the conditions for use apply to both the general public and industrial/professional users.

- Where the use of a particular precautionary statement is (highly) recommended but some exemptions are indicated ("unless" condition), it should not be used where the conditions specified in the "unless" clause apply:

For example:

P264 (Wash ... thoroughly after handling) for the hazard class: Skin corrosion 1 should not be used for industrial/professional users where P280 (Wear protective gloves/protective clothing/eye protection/face protection) has already been selected for the hazard label of the substance or mixture.

Vice versa, where a precautionary statement is only optional, it should be used where the conditions specified in the "unless" clause apply:

For example:

P410 (Protect from sunlight) for the hazard class: Gases under pressure should be applied in case the described gases are subject to (slow) decomposition or polymerisation

- Similarly to the previous bullet point: where the use of a particular precautionary statement is (highly) recommended under certain conditions only, it should not be used where these conditions do not apply:

For example:

P260 (Do not breathe dust/fume/gas/mist/vapours/spray) should not be used where a skin corrosive substance is not highly volatile.

- For some hazards the use of many specific precautionary statements will normally have to be recommended. As a consequence, the number of precautionary statements on the label will easily exceed the target number of six even for simple substances.

On the other hand, the label, as compared to the SDS, is not always the only and most appropriate means to convey a message to industrial/professional users, e.g. for P241 (Use explosion-proof electrical/ventilating/lighting/ .../equipment.). In such cases the guidance also refers to the SDS, typically by phrasing both a recommendation for the label and for the SDS. The recommendation for inclusion on the label is then "weaker" than for the SDS, see for example P241 for flammable liquids or P373 (DO NOT fight fire when fire reaches explosives) for explosive hazards. In some cases it is even recommended to put the relevant precautionary statements in the SDS **only**;

- In relation to the physical hazards, it should always be determined whether substances or mixtures displaying these hazards are supplied to or handled by the general public. Where this is not the case, the use of

further precautionary statements could be de-prioritised ("weaker" recommendation);

- Where the substance or mixture is supplied to the general public one P-statement relating to disposal of that substance/mixture or the disposal of the packaging must appear on the label unless not required under Article 22. In all other cases the P-statement addressing disposal is not required if it is clear that the disposal of the substance or mixture or the packaging does not present a hazard to human health or the environment;
- Where it is proposed to combine two or more precautionary statements that could also be used on their own, the conditions of use specify "(highly) recommended, in combination with Pxxx":

For example:

"Highly recommended, in combination with P302 + P352 (IF ON SKIN: Wash with plenty of water/...) for P310 (Immediately call a POISON CENTER/doctor/...) for the hazard class: Acute Tox. 1 and 2 (dermal).;

Such combined statements should be counted as one P-statement.

- Additional guidance is provided for the application of the precautionary statements P101 (If medical advice is needed, have product container or label at hand), P102 (Keep out of reach of children) and P103 (Read label before use) for hazardous substances and mixtures supplied to the general public (see table in [sub-section 7.3.1](#) of this guidance).

It should be noted that for substances and mixtures which are at the same time classified for physical, health and environmental hazards, a selection based on the rules outlined in this CLP guidance may still lead to a final set that significantly exceeds the target number of six statements for the label (see **Example C. Dimethylzinc (EC: 208-884-1) assigned physical, health and environmental classifications**). Even if this can in principle be justified by CLP Article 28(3), the question remains whether the extent of the labelling information is still digestible, in particular where long combination statements appear.

Therefore, when verifying the set of P-statements selected on the basis of this guidance, it is proposed to take into account the following principles:

- certain prevention and response statements provide more urgent advice than other statements, as rapid action may be crucial. Therefore, where similar P-statements having different priorities are assigned because of different hazards, the most stringent P-statement should be selected. This judgement can only be done on a case-by-case basis and will strongly depend on the hazards involved:

For example:

For substance classified as acutely toxic and carcinogenic, the first aid measures for acute toxicity will take precedence over the longer term effects, i.e. P310 (Immediately call a POISON CENTER/doctor/...) will take precedence over P311 (Call a POISON CENTER/doctor/...), P312 (Call a POISON CENTER/doctor/.../if you feel unwell) and P313 (Get medical advice/attention).

- de-selecting statements which appear less urgent from the label and putting them in the SDS would be a better option;
- to reduce the number of P-statements, the content of the hazard statement can also be taken into account:

For example:

Omission of P222 (Do not allow contact with air) for hazard classes: Pyrophoric liquids and Pyrophoric solids, the hazard statement being: H250 (Catches fire spontaneously if exposed to air).

Where an SDS must be compiled, the precautionary statements selected for the CLP hazard label have to be included in the SDS, under heading 2.2 ("Label elements"), see the *Guidance on the compilation of safety data sheets*. The de-selected statements can be introduced under the relevant headings of the SDS instead, to provide the industrial or professional user with sufficient information for handling the substance or mixture safely.

7.3 Selection tables

The below selection tables (sub-sections 7.3.1 to 7.3.5 of this guidance) follow the format as provided in Section 3 of Annex 3 to the UN GHS. The tables are arranged according to hazard class and category as appropriate.

The guidance builds upon the generic provisions set out in CLP Article 22 and 28, as well as the basic instructions provided in the columns containing the conditions for use in tables 6.1-6.5 of Annex IV to CLP. It takes into account *i.a.* the intended uses and the physical properties of the substance or mixture.

The original CLP conditions for use are displayed in black colour under the relevant precautionary statements in the selection tables below. In contrast, the conditions which constitute EU guidance are marked with an **asterisk bullet ★ and in blue colour**, in order to distinguish them from the original CLP conditions for use (see also the columns containing the conditions for use in tables 6.1 – 6.5 of Annex IV to the CLP Regulation).

For some hazard classes/categories the assignment of precautionary statements and corresponding conditions for use is proposed although they are not assigned based on the CLP Regulation. This applies in most cases to self-reactive substances and mixtures and organic peroxides. The guiding principle for these additional assignments is that the same (response) precautionary statements should be applied to self-reactive substances and mixtures and organic peroxides.

Where corresponding assignments and conditions for use are proposed, this is highlighted with the notion "**add**" after the code for the precautionary statement.

When a forward slash "/" appears in a precautionary statement text, it indicates that a choice has to be made between phrases it separates:

For example:

P280 (Wear protective gloves/protective clothing/eye protection/face protection) could read: "Wear eye protection" or "Wear eye and face protection".

When three full stops “...” appears in precautionary statement text, they indicate that all applicable conditions are not listed:

For example:

P241 (Use explosion-proof electrical/ventilating/lighting/.../equipment). The use of “...” indicates that other equipment may need to be specified by manufacturer or supplier.

In selecting the precautionary statements in accordance with the conditions for use set out in the tables, suppliers may combine these statements, having regard to clarity and comprehensibility of the precautionary advice. In this case the specific wording of the component phrases must be retained in the combined phrases. The selection tables are followed by four examples (A, B, C and D) of substances where the selection of precautionary statements for the label is illustrated.

7.3.1 General precautionary statements

Precautionary Statement

P101

If medical advice is needed, have product container or label at hand.

- Consumer products

- ★ Highly recommended for all substances and mixtures classified for health hazards and that are sold to the general public

P102

Keep out of reach of children.

- Consumer products

- ★ Highly recommended for substances and mixtures sold to the general public, except for those only classified as hazardous to the environment
- ★ Applies also to packagings that are to be fitted with child resistant fastening (Annex II, section 3.1.1.1)

P103

Read label before use.

- Consumer products

- ★ Optional, but may be required by other EU legislation



7.3.2 Specific precautionary statements for physical hazards

7.3.2.1 Explosives

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P201</p> <p>Obtain special instructions before use.</p> <p>★ Highly recommended</p> <p>P202</p> <p>Do not handle until all safety precautions have been read and understood.</p> <p>★ Optional where P201 has already been assigned</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify face protection.</p>	<p>P372</p> <p>Explosion risk in case of fire.</p> <p>★ Highly recommended</p> <p>P373</p> <p>DO NOT fight fire when fire reaches explosives.</p> <p>★ Recommended</p> <p>★ Highly recommended for inclusion in the safety data sheet</p> <p>P380</p> <p>Evacuate area.</p> <p>★ Highly recommended, in combination with P372</p>	<p>P401</p> <p>Store ...</p> <p>... In accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Highly recommended for inclusion in the safety data sheet. Specify the applicable regulation.</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p>

★ Highly recommended to apply the full wording of P280			
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7.3.2.1 Explosives

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</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P370 + P380</p> <p>In case of fire: Evacuate area.</p> <p>★ Highly recommended</p>	<p>P401</p> <p>Store ...</p> <p>... In accordance with local/regional/national/international regulations (to be specified).</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p>
<p>P230</p> <p>Keep wetted with ...</p> <p>... Manufacturer/supplier to specify appropriate material.</p> <p>- if drying out increases explosion hazard, except as needed for manufacturing or operating processes (e.g. nitrocellulose).</p> <p>★ Highly recommended 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). The appropriate</p>	<p>P372</p> <p>Explosion risk in case of fire.</p> <p>★ Highly recommended, in combination with P370+P380: Explosion risk in case of fire: Evacuate area</p> <p>P373</p> <p>DO NOT fight fire when fire reaches explosives.</p> <p>★ Recommended</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>	<p>★ Highly recommended for inclusion in the safety data sheet. Specify the applicable regulation.</p>	<p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p> <p>Mandatory when supplied to the general public.</p>

<p>material is to be specified.</p> <p>P240</p> <p>Ground/bond container and receiving equipment.</p> <p>- if the explosive is electrostatically sensitive.</p> <ul style="list-style-type: none"> ★ Optional unless other conditions deem it necessary ★ Recommended for inclusion in the safety data sheet <p>P250</p> <p>Do not subject to grinding/shock/.../friction.</p> <p>... Manufacturer/supplier to specify applicable rough handling.</p> <ul style="list-style-type: none"> ★ Highly recommended if the explosive is mechanically sensitive ★ Optional if the explosive is not mechanically sensitive <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify face protection.</p>			
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<ul style="list-style-type: none">★ Protective gloves/protective clothing/eye protection highly recommended for industrial/professional users★ Face protection highly recommended for industrial/professional users where articles are able to form hazardous fragments★ Optional for explosives supplied to the general public <p>P234 (add)</p> <p>Keep only in original container.</p> <ul style="list-style-type: none">★ Highly recommended			
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7.3.2.1 Explosives

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



Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P370 + P380</p> <p>In case of fire: Evacuate area.</p> <p>★ Highly recommended</p> <p>P372</p> <p>Explosion risk in case of fire.</p> <p>- except if explosives are 1.4S AMMUNITION AND COMPONENTS THEREOF.</p> <p>★ Highly recommended, except for division 1.4S, in combination with P370+P380: Explosion risk in case of fire: Evacuate area</p>	<p>P401</p> <p>Store ...</p> <p>... In accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Highly recommended for inclusion in the safety data sheet. Specify the applicable regulation.</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p> <p>★ Mandatory when supplied to the general public.</p>
<p>P240</p> <p>Ground/bond container and receiving equipment.</p> <p>- if the explosive is electrostatically sensitive.</p> <p>★ Optional unless other conditions deem it necessary</p> <p>★ Recommended for inclusion in the safety data sheet</p>	<p>P373</p> <p>DO NOT fight fire when fire reaches explosives.</p> <p>★ Recommended</p>		
<p>P250</p> <p>Do not subject to grinding/shock/.../friction.</p>			

<p>... Manufacturer/supplier to specify applicable rough handling.</p> <ul style="list-style-type: none"> ★ Highly recommended if the explosive is mechanically sensitive ★ Optional if the explosive is not mechanically sensitive <p>P280</p> <p>Wear protective gloves/protective clothing/ eye protection/ face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify face protection.</p> <ul style="list-style-type: none"> ★ Protective gloves/protective clothing/eye protection highly recommended for industrial / professional users ★ Face protection highly recommended for industrial / professional users where articles are able to form hazardous fragments ★ Optional for explosives supplied to the general public <p>P234 (add)</p> <p>Keep only in original container.</p> <ul style="list-style-type: none"> ★ Highly recommended 	<ul style="list-style-type: none"> ★ Highly recommended for inclusion in the safety data sheet <p>P374</p> <p>Fight fire with normal precautions from a reasonable distance.</p> <p>If explosives are 1.4S AMMUNITION AND COMPONENTS THEREOF.</p> <ul style="list-style-type: none"> ★ Highly recommended for division 1.4S 		
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1 **7.3.2.1 Explosives**

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p> <p>P230</p> <p>Keep wetted with ...</p> <p>... Manufacturer/supplier to specify appropriate material.</p> <p>- if drying out increases explosion hazard, except as needed for manufacturing or operating processes (e.g. nitrocellulose).</p> <p>★ Highly recommended for substances and mixtures which are wetted, diluted, dissolved or suspended with a phlegmatiser in order to reduce or suppress their explosive properties (desensitized explosives). The appropriate material is to be</p>	<p>P370 + P380</p> <p>In case of fire: Evacuate area.</p> <p>★ Highly recommended</p> <p>P372</p> <p>Explosion risk in case of fire.</p> <p>★ Highly recommended, in combination with P370+P380: Explosion risk in case of fire: Evacuate area</p> <p>P373</p> <p>DO NOT fight fire when fire reaches explosives.</p> <p>★ Recommended</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>	<p>P401</p> <p>Store ...</p> <p>... In accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Highly recommended for inclusion in the safety data sheet. Specify the applicable regulation</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p> <p>★ Mandatory when supplied to the general public.</p>

<p>specified.</p> <p>P240</p> <p>Ground/bond container and receiving equipment.</p> <p>- if the explosive is electrostatically sensitive.</p> <ul style="list-style-type: none"> ★ Optional unless other conditions deem it necessary ★ Recommended for inclusion in the safety data sheet <p>P250</p> <p>Do not subject to grinding/shock/.../friction.</p> <p>... Manufacturer/supplier to specify applicable rough handling.</p> <ul style="list-style-type: none"> ★ Highly recommended if the explosive is mechanically sensitive ★ Optional if the explosive is not mechanically sensitive <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/ face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p>			
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<p>- Specify face protection.</p> <ul style="list-style-type: none">★ Protective gloves/protective clothing/eye protection highly recommended for industrial / professional users★ Face protection highly recommended for industrial / professional users where articles are able to form hazardous fragments★ Optional for explosives supplied to the general public <p>P234 (add)</p> <p>Keep only in original container.</p> <ul style="list-style-type: none">★ Highly recommended			
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7.3.2.2 Flammable gases (including chemically unstable gases)

Hazard category	Signal word	Hazard statement
1	Danger	H220 Extremely flammable gas
2	Warning	H221 Flammable gas



Pictogram
for hazard
category 1
only.

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P377</p> <p>Leaking gas fire: Do not extinguish, unless leak can be stopped safely.</p> <p>★ Highly recommended</p> <p>P381</p> <p>Eliminate all ignition sources if safe to do so.</p> <p>★ Recommended</p>	<p>P403</p> <p>Store in a well-ventilated place.</p> <p>★ Highly recommended</p>	

7.3.2.2 Flammable gases (including chemically unstable gases)

Hazard category	Signal word	Hazard statement	No hazard pictogram
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. ★ Highly recommended			

Note: This table lists only the precautionary statement that is assigned due to the chemical instability of the gas. For other precautionary statements that are assigned based on the flammability see the respective table for flammable gases (of cat. 1 and 2) on the previous page.



7.3.2.3 Aerosols

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended, unless already assigned in accordance with Directive 75/324/EEC</p>		<p>P410 + P412</p> <p>Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.</p> <p>★ Highly recommended, unless already assigned in accordance with Directive 75/324/EEC</p>	
<p>P211</p> <p>Do not spray on an open flame or other ignition source.</p> <p>★ Highly recommended, unless a similar statement is assigned in accordance with Directive 75/324/EEC</p>			
<p>P251</p> <p>Do not pierce or burn, even after use.</p> <p>★ Highly recommended, unless already assigned in accordance with Directive 75/324/EEC</p>			

1 **7.3.2.3 Aerosols**

2	Hazard category	Signal word	Hazard statement
3	3	Warning	H229 Pressurised container: May burst if heated

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended, unless already assigned in accordance with Directive 75/324/EEC</p> <p>P251</p> <p>Do not pierce or burn, even after use.</p> <p>★ Highly recommended, unless already assigned in accordance with Directive 75/324/EEC</p>		<p>P410 + P412</p> <p>Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.</p> <p>★ Highly recommended, unless already assigned in accordance with Directive 75/324/EEC</p>	

7.3.2.4 Oxidising gases

Hazard category	Signal word
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1	Danger
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Hazard statement

H270 May cause or intensify fire; oxidiser

**Precautionary Statements**

Prevention	Response	Storage	Disposal
<p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Highly recommended</p> <p>P244</p> <p>Keep valves and fittings free from oil and grease.</p> <p>★ Highly recommended</p>	<p>P370 + P376</p> <p>In case of fire: Stop leak if safe to do so.</p> <p>★ Optional</p> <p>★ Recommended for inclusion in the safety data sheet.</p>	<p>P403</p> <p>Store in a well-ventilated place.</p> <p>★ Highly recommended</p>	

1 **7.3.2.5 Gases under pressure**

2	Hazard category	Signal word	Hazard statement
3	Compressed gas	Warning	H280 Contains gas under pressure; may explode if heated
4	Liquefied gas	Warning	H280 Contains gas under pressure; may explode if heated
5	Dissolved gas	Warning	H280 Contains gas under pressure; may explode if heated
6			

**Precautionary Statements**

Prevention	Response	Storage	Disposal
		<p>P410 + P403</p> <p>Protect from sunlight. Store in a well-ventilated place.</p> <p>- may be omitted for gases filled in transportable gas cylinders in accordance with packing instruction P200 of the UN RTDG, Model Regulations, unless those gases are subject to (slow) decomposition or polymerisation</p> <p>★ Optional</p>	



7.3.2.5 Gases under pressure

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P282</p> <p>Wear cold insulating gloves/face shield/eye protection.</p> <p>★ Highly recommended where liquid splashes may occur, e.g. during transfer of cryogenic liquids. In this case the use of safety glasses with side shields and a face shield should be indicated in the safety data sheet.</p>	<p>P336</p> <p>Thaw frosted parts with lukewarm water. Do not rub affected area.</p> <p>★ Highly recommended</p> <p>P315</p> <p>Get immediate medical advice/attention.</p> <p>★ Recommended, in combination with P336</p>	<p>P403</p> <p>Store in a well-ventilated place.</p> <p>★ Optional</p>	



7.3.2.6 Flammable liquids

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</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P303 + P361 + P353</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>★ Optional unless deemed necessary, e.g. due to the risk of generating a potentially explosive atmosphere</p>	<p>P403 + P235</p> <p>Store in a well-ventilated place. Keep cool.</p> <p>★ Highly recommended for flammable liquids category 1 and other liquids that are volatile so as to generate a potentially explosive atmosphere</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals.</p>
<p>P233</p> <p>Keep container tightly closed.</p> <p>★ Highly recommended for category 1, unless P404 has already been assigned</p> <p>★ Recommended for category 2, unless P404 has already been assigned</p> <p>★ Optional for category 3</p> <p>★ Recommended if product is volatile so as to generate a potentially explosive atmosphere, unless P404 has already been assigned</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>		
<p>P240</p>			

<p>Ground/bond container and receiving equipment.</p> <ul style="list-style-type: none"> - if electrostatically sensitive material is for reloading. - if product is volatile so as to generate hazardous atmosphere. <ul style="list-style-type: none"> ★ Optional unless other conditions deem it necessary ★ Recommended for inclusion in the safety data sheet <p>P241</p> <p>Use explosion-proof electrical/ventilating/lighting/.../equipment.</p> <p>... Manufacturer/supplier to specify other equipment.</p> <ul style="list-style-type: none"> ★ Optional unless other conditions deem it necessary ★ Recommended for inclusion in the safety data sheet <p>P242</p> <p>Use only non-sparking tools.</p> <ul style="list-style-type: none"> ★ Optional unless other conditions deem it necessary ★ Recommended for inclusion in the safety data sheet 			<p>It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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<p>P243</p> <p>Take precautionary measures against static discharge.</p> <ul style="list-style-type: none">★ Optional unless other conditions deem it necessary★ Recommended for inclusion in the safety data sheet <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none">- Specify protective gloves and eye/face protection. <p>★ Optional</p>			
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7.3.2.7 Flammable solids



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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>		
<p>P240</p> <p>Ground/bond container and receiving equipment.</p> <p>- if electrostatically sensitive material is for reloading.</p> <p>★ Optional unless other conditions deem it necessary</p> <p>★ Recommended for inclusion in the safety data sheet</p>			
<p>P241</p> <p>Use explosion-proof electrical/ventilating/</p>			

<p>lighting/.../equipment.</p> <p>... Manufacturer/supplier to specify other equipment.</p> <p>- if dust clouds can occur.</p> <p>★ Optional unless other conditions deem it necessary</p> <p>★ Recommended for inclusion in the safety data sheet</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/ face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves and eye/face protection.</p> <p>★ Optional</p>			
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7.3.2.8 Self-reactive substances and mixtures

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



Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Normally not to be used due to the risk of explosion</p>	<p>P403 + P235</p> <p>Store in a well-ventilated place. Keep cool.</p> <p>★ P403: Highly recommended</p> <p>★ P235: Highly recommended, in combination with P403, unless P411 has already been assigned</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p>
<p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Recommended unless P420 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>	<p>P370 + P380 + P375</p> <p>In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.</p> <p>★ Highly recommended to use P370+P380 only; P375 not to be used</p>	<p>P411</p> <p>Store at temperatures not exceeding ...°C/...°F.</p> <p>... Manufacturer/supplier to specify temperature.</p> <p>★ Highly recommended if SADT ≤ 50 °C or if otherwise deemed necessary, in combination</p>	
<p>P234</p> <p>Keep only in original container.</p> <p>★ Highly recommended where the</p>			

<p>container is important for preventing or suppressing the effect of dangerous reactions or explosion</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves and eye/face protection.</p> <p>★ Highly recommended</p>		<p>with P403</p> <p>P420</p> <p>Store away from other materials.</p> <p>★ Recommended where incompatible materials are likely to produce a particular risk. If this statement is used, text clarifying the incompatible materials should be added as supplemental information.</p> <p>★ Optional where P220 has already been assigned</p>	
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7.3.2.8 Self-reactive substances and mixtures

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</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p> <p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Recommended unless P420 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p> <p>P234</p> <p>Keep only in original container.</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p> <p>P370 + P380 + P375</p> <p>In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.</p> <p>★ Highly recommended</p>	<p>P403 + P235</p> <p>Store in a well-ventilated place. Keep cool.</p> <p>★ P403: Highly recommended</p> <p>★ P235: Highly recommended, in combination with P403, unless P411 has already been assigned</p> <p>P411</p> <p>Store at temperatures not exceeding ...°C/...°F.</p> <p>... Manufacturer/supplier to specify temperature.</p> <p>★ Highly recommended if SADT ≤ 50 °C or if otherwise deemed necessary, in combination with P403</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for inclusion in the safety</p>

<p>★ Highly recommended</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none"> - Specify protective gloves and eye/face protection. <p>★ Highly recommended</p>		<p>P420</p> <p>Store away from other materials.</p> <ul style="list-style-type: none"> ★ Recommended where incompatible materials are likely to produce a particular risk. If this statement is used, text clarifying the incompatible materials should be added as supplemental information ★ Optional where P220 has already been assigned 	<p>data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p>
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7.3.2.8 Self-reactive substances and mixtures

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</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>	<p>P403 + P235</p> <p>Store in a well-ventilated place. Keep cool.</p> <p>★ P403: Highly recommended</p> <p>★ P235: Highly recommended, in combination with P403, unless P411 has already been assigned</p> <p>P411</p> <p>Store at temperatures not exceeding ...°C/...°F.</p> <p>... Manufacturer/supplier to specify temperature.</p> <p>★ Highly recommended if</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance/mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the</p>
<p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Recommended unless P420 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>			
P234			

<p>Keep only in original container.</p> <p>★ Highly recommended</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none"> - Specify protective gloves and eye/face protection. <p>★ Highly recommended</p>		<p>SADT ≤ 50 °C or if otherwise deemed necessary, in combination with P403.</p> <p>P420</p> <p>Store away from other materials.</p> <ul style="list-style-type: none"> ★ Recommended where incompatible materials are likely to produce a particular risk. If this statement is used, text clarifying the incompatible materials should be added as supplemental information ★ Optional where P220 has already been assigned 	<p>normal expectation for the disposal of chemicals. Specify the applicable regulation.</p>
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7.3.2.9 Pyrophoric liquids

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



Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P302 + P334</p> <p>IF ON SKIN: Immerse in cool water/wrap in wet bandages.</p> <p>★ Highly recommended</p>	<p>P422</p> <p>Store contents under ...</p> <p>... Manufacturer/supplier to specify appropriate liquid or inert gas.</p>	
<p>P222</p> <p>Do not allow contact with air.</p> <p>★ Optional unless emphasis of the hazard statement is desired</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p>	<p>★ Recommended if a specific inert gas or liquid is required, unless P231 has already been assigned</p>	
<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves and eye/face protection.</p>	<p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>	<p>★ Highly recommended for inclusion in the safety data sheet</p>	

<ul style="list-style-type: none">★ Highly recommended <p>P231 (add)</p> <p>Handle under inert gas.</p> <ul style="list-style-type: none">★ Recommended, unless P422 has already been assigned★ Highly recommended for inclusion in the safety data sheet			
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7.3.2.10 Pyrophoric solids

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



Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P335 + P334</p> <p>Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.</p> <p>★ Highly recommended</p>	<p>P422</p> <p>Store contents under ...</p> <p>... Manufacturer/supplier to specify appropriate liquid or inert gas.</p> <p>★ Recommended if a specific inert gas or liquid is required, unless P231 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>	
<p>P222</p> <p>Do not allow contact with air.</p> <p>★ Optional unless emphasis of the hazard statement is desired</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>		
<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves and eye/face protection.</p> <p>★ Highly recommended</p>			

<p>P231 (add)</p> <p>Handle under inert gas.</p> <ul style="list-style-type: none">★ Recommended, unless P422 has already been assigned★ Highly recommended for inclusion in the safety data sheet			
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7.3.2.11 Self-heating substances and mixtures

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
<p>P235 + P410</p> <p>Keep cool. Protect from sunlight.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial/professional users if P413 has already been assigned <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none"> - Specify protective gloves and eye/face protection. ★ Optional 		<p>P407</p> <p>Maintain air gap between stacks/pallets.</p> <ul style="list-style-type: none"> ★ Highly recommended <p>P413</p> <p>Store bulk masses greater than ... kg/...lbs at temperatures not exceeding ...°C/...°F.</p> <p>... Manufacturer/supplier to specify mass and temperature.</p> <ul style="list-style-type: none"> ★ Highly recommended if the manufacturer has specific information <p>P420</p> <p>Store away from other materials.</p> <ul style="list-style-type: none"> ★ Recommended where incompatible materials are likely to produce a particular risk. If this statement is used, text clarifying the incompatible materials should be added as supplemental information ★ Optional where P220 has already been assigned 	



7.3.2.12 Substances and mixtures which, in contact with water, emit flammable gases

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 gases

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P223</p> <p>Do not allow contact with water.</p> <p>★ Optional unless emphasis of the hazard statement is desired</p>	<p>P335 + P334</p> <p>Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.</p>	<p>P402 + P404</p> <p>Store in a dry place. Store in a closed container.</p>	<p>P501</p> <p>Dispose of contents/container to ...</p>
<p>P231 + P232</p> <p>Handle under inert gas. Protect from moisture.</p> <p>★ Highly recommended for substances and mixtures which react readily with moisture in air, where special emphasis is required</p>	<p>★ Highly recommended but do not use the phrase "wrap in wet bandages"</p>	<p>★ Recommended, unless P231 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>	<p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves and eye/face protection.</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media</p>		<p>★ Recommended for inclusion in the safety data</p>

★ Recommended	are required or appropriate		sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.
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1 **7.3.2.12 Substances and mixtures which, in contact with water, emit flammable gases**

2	Hazard category	Signal word	Hazard statement
3	3	Warning	H261 In contact with water releases flammable gases



Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>P231 + P232</p> <p>Handle under inert gas. Protect from moisture.</p> <p>★ Highly recommended for substances and mixtures which react readily with moisture in air, where special emphasis is required</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves and eye/face protection.</p> <p>★ Recommended</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate</p>	<p>P402 + P404</p> <p>Store in a dry place. Store in a closed container.</p> <p>★ Recommended, unless P231 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p>



7.3.2.13 Oxidising liquids

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P306 + P360</p> <p>IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.</p> <p>★ Recommended</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
<p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>- specify to keep away from clothing and other combustible materials.</p> <p>★ Optional where P221 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>	<p>P371 + P380 + P375</p> <p>In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.</p> <p>★ Highly recommended</p>		<p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the</p>
<p>P221</p> <p>Take any precaution to avoid mixing with combustibles/...</p> <p>... Manufacturer/supplier to specify incompatible</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p>		

<p>materials.</p> <p>★ Highly recommended</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/ face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none"> - Specify protective gloves and eye/face protection. <p>★ Recommended</p> <p>P283</p> <p>Wear fire/flamm resistant/retardant clothing.</p> <p>★ Recommended for inclusion in the safety data sheet</p>	<p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>		<p>disposal of chemicals</p>
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7.3.2.13 Oxidising liquids

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p> <p>P220</p> <p>Keep/Store away from clothing/.../ combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Optional where P221 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p> <p>P221</p> <p>Take any precaution to avoid mixing with combustibles/...</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/ national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals.</p>

<p>... Manufacturer/supplier to specify incompatible materials.</p> <p>★ Highly recommended</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/ face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves and eye/face protection.</p> <p>★ Recommended</p>			<p>Specify the applicable regulation.</p>
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7.3.2.14 Oxidising solids

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



Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P306 + P360</p> <p>IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.</p> <p>★ Recommended</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p>
<p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>- specify to keep away from clothing and other combustible materials.</p> <p>★ Optional where P221 has already been assigned</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>	<p>P371 + P380 + P375</p> <p>In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.</p> <p>★ Highly recommended</p>		<p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
<p>P221</p> <p>Take any precaution to avoid mixing with combustibles/...</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinction.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p>		<p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals.</p>

<p>... Manufacturer/supplier to specify incompatible materials.</p> <p>★ Highly recommended</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves and eye/face protection.</p> <p>★ Recommended</p> <p>P283</p> <p>Wear fire/flame resistant/retardant clothing.</p> <p>★ Recommended for inclusion in the safety data sheet</p>	<p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>		<p>Specify the applicable regulation.</p>
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7.3.2.14 Oxidising solids

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p> <p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Optional where P221 has already been assigned</p> <p>P221</p> <p>Take any precaution to avoid mixing with combustibles/...</p> <p>... Manufacturer/supplier to specify incompatible materials.</p> <p>★ Highly recommended</p>	<p>P370 + P378</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p> <p>★ Highly recommended if specific extinction media are required or appropriate</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for inclusion in the safety data sheet if there are</p>

<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none">- Specify protective gloves and eye/face protection. <p>★ Recommended</p>			<p>specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p>
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7.3.2.15 Organic peroxides

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P210</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P370 + P380 (add)</p> <p>In case of fire: Evacuate area.</p> <p>★ Highly recommended</p>	<p>P411 + P235</p> <p>Store at temperatures not exceeding ...°C/...°F. Keep cool.</p> <p>... Manufacturer/supplier to specify temperature.</p> <p>★ P411: Highly recommended if SADT ≤ 50 °C or if otherwise deemed necessary, in combination with P403</p> <p>★ P235: Highly recommended for other cases, in combination with P403</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals. Specify the applicable regulation.</p>
<p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Recommended</p> <p>★ Highly recommended for inclusion in the safety data sheet</p>		<p>P403 (add)</p> <p>Store in a well-ventilated place.</p> <p>★ Highly recommended, in combination with P411 or P235</p>	
<p>P234</p> <p>Keep only in original container.</p> <p>★ Highly recommended where the container is important for preventing</p>		<p>P410</p> <p>Protect from sunlight.</p> <p>★ Optional if P411 or P235 has already</p>	

<p>or suppressing the effect of dangerous reactions or explosion</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none">- Specify protective gloves and eye/face protection. <p>★ Highly recommended</p>		<p>been assigned</p> <p>P420</p> <p>Store away from other materials.</p> <ul style="list-style-type: none">★ Recommended where incompatible materials are likely to produce a particular risk. If this statement is used, text clarifying the incompatible materials should be added as supplemental information★ Optional where P220 has already been assigned	
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7.3.2.15 Organic peroxides

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</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P370 + P380 + P375 (add)</p> <p>In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.</p> <p>★ Highly recommended</p>	<p>P411 + P235</p> <p>Store at temperatures not exceeding ...°C/...°F. Keep cool.</p> <p>... Manufacturer/supplier to specify temperature.</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p>
<p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Recommended</p>	<p>P370 + P378 (add)</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p>	<p>★ P411: Highly recommended if SADT ≤ 50 °C or if otherwise deemed necessary, in combination with P403</p> <p>★ P235: Highly recommended for other cases, in combination with P403</p>	<p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
<p>P234</p> <p>Keep only in original container.</p> <p>★ Highly recommended</p>	<p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>	<p>P403 (add)</p> <p>Store in a well-ventilated place.</p> <p>★ Highly recommended, in combination with P411 or P235</p>	<p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the disposal of chemicals.</p>
<p>P280</p> <p>Wear protective gloves/protective</p>		<p>P410</p>	

<p>clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none">- Specify protective gloves and eye/face protection. <p>★ Highly recommended</p>		<p>Protect from sunlight.</p> <ul style="list-style-type: none">★ Optional if P411 or P235 has already been assigned <p>P420</p> <p>Store away from other materials.</p> <ul style="list-style-type: none">★ Recommended where incompatible materials are likely to produce a particular risk. If this statement is used, text clarifying the incompatible materials should be added as supplemental information★ Optional where P220 has already been assigned	<p>Specify the applicable regulation.</p>
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7.3.2.15 Organic peroxides

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</p> <p>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>★ Highly recommended</p>	<p>P370 + P378 (add)</p> <p>In case of fire: Use ... to extinguish.</p> <p>... Manufacturer/supplier to specify appropriate media.</p> <p>- if water increases risk.</p>	<p>P411 + P235</p> <p>Store at temperatures not exceeding ...°C/...°F. Keep cool.</p> <p>... Manufacturer/supplier to specify temperature.</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p>
<p>P220</p> <p>Keep/Store away from clothing/.../combustible materials.</p> <p>... Manufacturer/supplier to specify other incompatible materials.</p> <p>★ Recommended</p>	<p>★ Highly recommended if specific extinction media are required or appropriate, e.g. if water is ineffective or if water increases risk</p>	<p>★ P411: Highly recommended if SADT ≤ 50 °C or if otherwise deemed necessary, in combination with P403</p> <p>★ P235: Highly recommended for other cases, in combination with P403</p>	<p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
<p>P234</p> <p>Keep only in original container.</p> <p>★ Highly recommended</p>		<p>P403 (add)</p> <p>Store in a well-ventilated place.</p> <p>★ Highly recommended, in combination with P411 or P235</p>	<p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the</p>
P280		P410	

<p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none">- Specify protective gloves and eye/face protection. <p>★ Highly recommended</p>		<p>Protect from sunlight.</p> <ul style="list-style-type: none">★ Optional if P411 or P235 has already been assigned <p>P420</p> <p>Store away from other materials.</p> <ul style="list-style-type: none">★ Recommended where incompatible materials are likely to produce a particular risk. If this statement is used, text clarifying the incompatible materials should be added as supplemental information★ Optional where P220 has already been assigned	<p>normal expectation for the disposal of chemicals. Specify the applicable regulation.</p>
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7.3.2.16 Corrosive to metals

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



Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P234</p> <p>Keep only in original container.</p> <ul style="list-style-type: none"> ★ Recommended for the general public ★ Optional for industrial / professional users ★ Recommended for inclusion in the safety data sheet 	<p>P390</p> <p>Absorb spillage to prevent material damage.</p> <ul style="list-style-type: none"> ★ Recommended 	<p>P406</p> <p>Store in a corrosive resistant/... container with a resistant inner liner.</p> <p>... Manufacturer/supplier to specify other compatible materials.</p> <ul style="list-style-type: none"> ★ Optional ★ Do not use if P234 has already been assigned 	



7.3.3 Specific precautionary statements for health hazards

7.3.3.1 Acute Toxicity – Oral

Hazard category	Signal word	Hazard statement
1	Danger	H300 Fatal if swallowed
2	Danger	H300 Fatal if swallowed
3	Danger	H301 Toxic if swallowed

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>Manufacturer/supplier to specify parts of the body to be washed after handling.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Recommended for industrial / professional users unless P280 is assigned due to other reasons <p>P270</p> <p>Do not eat, drink or smoke when using this product.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public for categories 1 and 2 ★ Recommended for the general public 	<p>P301 + P310</p> <p>IF SWALLOWED: Immediately call a POISON CENTER /doctor/...</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <ul style="list-style-type: none"> ★ Highly recommended <p>P321</p> <p>Specific treatment (see ... on this label).</p> <p>... Reference to supplemental first aid instruction.</p> <p>- if immediate administration of antidote is required.</p> <ul style="list-style-type: none"> ★ Highly recommended only in 	<p>P405</p> <p>Store locked up.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial / professional users 	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/ regional/national/international regulations (to be specified).</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary. ★ Recommended for industrial / professional users if there are specific disposal

<p>for category 3</p> <ul style="list-style-type: none"> ★ Optional for industrial / professional users ★ Recommended for inclusion in the safety data sheet 	<p>exceptional cases where specific treatment is known and required</p> <p>P330 in combination with P301</p> <p>Rinse mouth.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public for categories 1 and 2 unless P301+P330+P331 is assigned ★ Recommended for the general public for category 3 unless P301+P330+P331 is assigned ★ Recommended for industrial / professional users for categories 1 and 2 unless P301+P330+P331 is assigned ★ Optional for industrial / professional users for category 3 		<p>requirements above the normal expectation for the disposal of chemicals. . It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.1 Acute Toxicity - Oral

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



Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>Manufacturer/supplier to specify parts of the body to be washed after handling.</p> <ul style="list-style-type: none"> ★ Recommended for the general public unless P280 is assigned due to other reasons ★ Optional for industrial / professional users <p>P270</p> <p>Do not eat, drink or smoke when using this product.</p> <ul style="list-style-type: none"> ★ Recommended for the general public ★ Optional for industrial / professional users ★ Recommended for inclusion in the 	<p>P301 + P312</p> <p>IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <ul style="list-style-type: none"> ★ Optional <p>P330</p> <p>Rinse mouth.</p> <ul style="list-style-type: none"> ★ Optional 		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified)</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary. ★ Recommended for industrial / professional users if there are

safety data sheet			specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.
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7.3.3.1 Acute Toxicity – Dermal

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
<p>P262</p> <p>Do not get in eyes, on skin, or on clothing.</p> <p>★ Highly recommended</p> <p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>Manufacturer / supplier to specify parts of the body to be washed after handling.</p> <p>★ Highly recommended for the general public</p> <p>★ Highly recommended for industrial / professional users unless P280 has already been assigned</p> <p>P270</p> <p>Do not eat, drink or smoke when using this product.</p> <p>★ Highly recommended for the general public</p> <p>★ Optional for industrial / professional users.</p>	<p>P302 + P352</p> <p>IF ON SKIN: Wash with plenty of water/...</p> <p>...Manufacturer/supplier may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate.</p> <p>★ Recommended for the general public</p> <p>★ Recommended for inclusion in the safety data sheet</p> <p>P310</p> <p>Immediately call a POISON CENTER/doctor/...</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <p>★ Highly recommended, in</p>	<p>P405</p> <p>Store locked up.</p> <p>★ Highly recommended for the general public</p> <p>★ Optional for industrial/professional users</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for inclusion in the safety data sheet if there are specific disposal requirements above the normal expectation for the</p>

<p>★ Recommended for inclusion in the safety data sheet</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves/clothing.</p> <p>★ Highly recommended</p>	<p>combination with P302+P352</p> <p>P321</p> <p>Specific treatment (see ... on this label).</p> <p>Reference to supplemental first aid instruction.</p> <p>- if immediate measures, such as specific cleansing agent, are advised</p> <p>★ Highly recommended only in exceptional cases where specific treatment is known and required</p> <p>P361 + P364</p> <p>Take off immediately all contaminated clothing and wash it before reuse</p> <p>★ Recommended</p>		<p>disposal of chemicals. Specify the applicable regulation.</p>
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7.3.3.1 Acute Toxicity – Dermal

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves/clothing.</p> <p>★ Highly recommended</p>	<p>P302 + P352</p> <p>IF ON SKIN: Wash with plenty of water/...</p> <p>...Manufacturer/supplier may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate.</p> <p>★ Recommended for the general public</p> <p>★ Recommended for inclusion in the safety data sheet</p> <p>P312</p> <p>Call a POISON CENTER/doctor/.../ if you feel unwell.</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p>	<p>P405</p> <p>Store locked up.</p> <p>★ Highly recommended for the general public</p> <p>★ Optional for industrial / professional users</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements</p>

	<p>★ Recommended unless P310, P311 or P313 is assigned</p> <p>P321</p> <p>Specific treatment (see ... on this label).</p> <p>...Reference to supplemental first aid instruction.</p> <p>- if immediate measures, such as specific cleansing agent, are advised</p> <p>★ Highly recommended only in exceptional cases where specific treatment is known and required</p> <p>P361+P364</p> <p>Take off immediately all contaminated clothing and wash it before reuse.</p> <p>★ Recommended</p>		<p>above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.1 Acute Toxicity – Dermal

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P280</p> <p>Wear protective gloves/ protective clothing /eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves/clothing.</p> <p>★ Recommended</p>	<p>P302 + P352</p> <p>IF ON SKIN: Wash with plenty of water/...</p> <p>...Manufacturer/supplier may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate.</p> <p>★ Optional</p> <p>P312</p> <p>Call a POISON CENTER/doctor/.../if you feel unwell.</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <p>★ Recommended unless P310, P311 or P313 is assigned</p> <p>P321</p> <p>Specific treatment (see ... on this label).</p> <p>...Reference to supplemental first aid instruction.</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is</p>

	<p>- if immediate measures, such as specific cleansing agent, are advised.</p> <p>★ Highly recommended only in exceptional cases where specific treatment is known and required</p> <p>P362 + P364</p> <p>Take off contaminated clothing and wash it before reuse.</p> <p>★ Optional</p>		<p>recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.1 Acute Toxicity - Inhalation

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P260</p> <p>Do not breathe dust/fume/gas/mist/vapours/ spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <p>★ Highly recommended</p>	<p>P304 + P340</p> <p>IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.</p> <p>★ Highly recommended</p>	<p>P403 + P233</p> <p>Store in a well-ventilated place. Keep container tightly closed.</p> <p>- if product is volatile so as to generate hazardous atmosphere.</p> <p>★ Highly recommended unless P404 has already been assigned</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
<p>P271</p> <p>Use only outdoors or in a well-ventilated area.</p> <p>★ Highly recommended for the general public</p> <p>★ Optional for industrial/professional users</p>	<p>P310</p> <p>Immediately call a POISON CENTER/doctor/...</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <p>★ Highly recommended, in combination with P304+P340</p>	<p>P405</p> <p>Store locked up.</p> <p>★ Highly recommended for the general public</p> <p>★ Optional for industrial / professional users unless other conditions deem it necessary</p>	
<p>P284</p> <p>Wear respiratory protection.</p> <p>Manufacturer/supplier to specify equipment.</p>	<p>P320</p> <p>Specific treatment is urgent (see ... on this label)</p>		

<ul style="list-style-type: none">★ Recommended for industrial/professional users in exceptional cases where inadequate ventilation/organisational measures cannot sufficiently prevent inhalation★ Recommended for inclusion in the safety data sheet	<p>... Reference to supplemental first aid instruction.</p> <ul style="list-style-type: none">- <i>if immediate administration of antidote is required</i>★ Highly recommended only in exceptional cases where specific treatment is known and required		<ul style="list-style-type: none">★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.
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7.3.3.1 Acute Toxicity – Inhalation

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P261</p> <p>Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <ul style="list-style-type: none"> - may be omitted if P260 is given on the label. <p>★ Recommended</p> <p>P271</p> <p>Use only outdoors or in a well-ventilated area.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial/professional users 	<p>P304 + P340</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>★ Recommended</p> <p>P311</p> <p>Call a POISON CENTER/doctor/...</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <p>★ Recommended, in combination with P304+P340</p> <p>P321</p> <p>Specific treatment (see ... on this label)</p> <p>... Reference to supplemental first aid instruction.</p> <ul style="list-style-type: none"> - if immediate specific measures are 	<p>P403 + P233</p> <p>Store in a well-ventilated place. Keep container tightly closed.</p> <ul style="list-style-type: none"> - if product is volatile so as to generate hazardous atmosphere. <p>★ Highly recommended</p> <p>P405</p> <p>Store locked up.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial / professional users unless other conditions deem it necessary 	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>

	<p>required.</p> <ul style="list-style-type: none">★ Highly recommended only in exceptional cases where specific treatment is known and required		<ul style="list-style-type: none">★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.
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1 **7.3.3.1 Acute Toxicity – Inhalation**

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

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Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>P261</p> <p>Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <ul style="list-style-type: none"> - may be omitted if P260 is given on the label. <p>★ Recommended</p>	<p>P304 + P340</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>★ Optional</p> <p>P312</p> <p>Call a POISON CENTER or doctor/.../if you feel unwell.</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <p>★ Recommended, unless P310, P311 or P313 is assigned</p>		
<p>P271</p> <p>Use only outdoors or in a well-ventilated area.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial/professional users 			

7.3.3.2 Skin corrosion/irritation



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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P260</p> <p>Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <ul style="list-style-type: none"> - specify do not breathe dusts or mists. - If inhalable particles of dusts or mists may occur during use. <p>★ Highly recommended</p>	<p>P301 + P330 + P331</p> <p>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public, provided that medical advice indicates that the statement is appropriate ★ Recommended for industrial / professional users, provided that medical advice indicates that the statement is appropriate 	<p>P405</p> <p>Store locked up.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial / professional users unless other conditions deem it necessary 	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>...in accordance with local/regional/national/international regulations (to be specified).</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary. ★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the
<p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>Manufacturer/supplier to specify parts of the body to be washed after handling.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public, unless P280 has already been assigned 	<p>P303 + P361 + P353</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <ul style="list-style-type: none"> ★ Highly recommended <p>P363</p> <p>Wash contaminated clothing before</p>		

<p>★ Highly recommended for industrial / professional users, unless P280 has already been assigned</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves/clothing and eye/face protection.</p> <p>★ Highly recommended</p>	<p>reuse.</p> <p>★ Recommended for the general public</p> <p>★ Recommended for inclusion in the safety data sheet</p> <p>P304 + P340</p> <p>If INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>★ Optional</p> <p>P310</p> <p>Immediately call a POISON CENTER/doctor/...</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <p>★ Highly recommended, in combination with P303+P361+P353, P305+P351+P338 or P301 + P330 + P331</p> <p>P321</p> <p>Specific treatment (see ... on this label).</p> <p>...Reference to supplemental first aid instruction.</p> <p>- manufacturer/supplier may specify a cleansing agent if appropriate</p> <p>★ Highly recommended only in exceptional cases where specific treatment is known and required</p>		<p>disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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	<p>P305 + P351 + P338</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>★ Highly recommended</p>		
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7.3.3.2 Skin corrosion/irritation

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

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>... Manufacturer/supplier to specify parts of the body to be washed after handling.</p> <p>★ Recommended</p>	<p>P302 + P352</p> <p>IF ON SKIN: Wash with plenty of water/...</p> <p>...Manufacturer/supplier may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate.</p> <p>★ Optional for the general public</p> <p>★ Recommended for inclusion in the safety data sheet</p>		
<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves.</p> <p>★ Recommended</p>	<p>P321</p> <p>Specific treatment (see ... on this label).</p> <p>Reference to supplemental first aid instruction.</p> <p>- manufacturer/supplier may specify a cleansing agent if appropriate</p> <p>★ Recommended only in exceptional cases where specific treatment is known and required</p>		

	<p>P332 + P313</p> <p>If skin irritation occurs: Get medical advice/attention.</p> <ul style="list-style-type: none">★ Optional★ May be omitted when P333 + P313 is assigned <p>P362 + P364</p> <p>Take off contaminated clothing and wash it before reuse.</p> <ul style="list-style-type: none">★ Optional★ Recommended for inclusion in the safety data sheet		
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7.3.3.3 Serious eye damage - only

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

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify eye/face protection.</p> <p>★ Highly recommended</p>	<p>P305 + P351 + P338</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>★ Highly recommended</p> <p>P310</p> <p>Immediately call a POISON CENTER/ doctor/...</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <p>★ Highly recommended, in combination with P305+P351+P338</p>		



7.3.3.3 Eye irritation – only

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

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify eye/face protection.</p> <p>★ Recommended</p>	<p>P305 + P351 + P338</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>★ Recommended for the general public</p> <p>★ Recommended for inclusion in the safety data sheet</p>		
<p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>... Manufacturer / supplier to specify parts of the body to be washed after handling.</p> <p>★ Optional for the industrial / professional users</p> <p>★ Recommended for the general public</p>	<p>P337 + P313</p> <p>If eye irritation persists: Get medical advice/attention.</p> <p>★ Recommended</p>		

7.3.3.4 Respiratory sensitisation



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</p> <p>Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <ul style="list-style-type: none"> - may be omitted if P260 is given on the label. <p>★ Highly recommended</p>	<p>P304 + P340</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>★ Highly recommended</p> <p>P342 + P311</p> <p>If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.</p> <p>★ Highly recommended</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the</p>
<p>P284</p> <p>[In case of inadequate ventilation] wear respiratory protection.</p> <p>Manufacturer/supplier to specify equipment.</p> <ul style="list-style-type: none"> - 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 			

<p>would be adequate for safe use.</p> <ul style="list-style-type: none">★ Recommended for industrial/professional users in exceptional cases where inadequate ventilation/organisational measures cannot sufficiently prevent inhalation★ Recommended for inclusion in the safety data sheet			<p>disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.4 Skin sensitisation

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</p> <p>Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <ul style="list-style-type: none"> - may be omitted if P260 is given on the label. <p>★ Recommended</p>	<p>P302 + P352</p> <p>IF ON SKIN: Wash with plenty of water/...</p> <p>...Manufacturer/supplier may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate.</p> <ul style="list-style-type: none"> ★ Recommended for the general public ★ Recommended for inclusion in the safety data sheet 		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.
<p>P272</p> <p>Contaminated work clothing should not be allowed out of the workplace.</p> <ul style="list-style-type: none"> ★ Not intended to be used for the general public ★ Optional for industrial/professional users 	<p>P333 + P313</p> <p>If skin irritation or rash occurs: Get medical advice/attention.</p> <ul style="list-style-type: none"> ★ Recommended 		<p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the</p>
<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p>	<p>P321</p> <p>Specific treatment (see ... on this label)</p> <p>... Reference to supplemental first aid</p>		

Manufacturer/supplier to specify type of equipment. - Specify protective gloves. ★ Highly recommended	instruction. - manufacturer/supplier may specify a cleansing agent if appropriate. ★ Highly recommended only in exceptional cases where specific treatment is known and required P362+P364 Take off contaminated clothing and wash it before reuse. ★ Recommended		disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.
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7.3.3.5 Germ cell mutagenicity

Hazard category	Signal word	Hazard statement
1A and 1B	Danger	H340 May cause genetic defects (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
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
<p>P201</p> <p>Obtain special instructions before use.</p> <ul style="list-style-type: none"> ★ Highly recommended for category 1A and 1B ★ Recommended for category 2 <p>P202</p> <p>Do not handle until all safety precautions have been read and understood.</p> <ul style="list-style-type: none"> ★ Optional where P201 is assigned 	<p>P308 + P313</p> <p>IF exposed or concerned: Get medical advice/attention.</p> <ul style="list-style-type: none"> ★ Highly recommended for category 1A and 1B ★ Recommended for category 2 	<p>P405</p> <p>Store locked up.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public³⁹ ★ Optional for industrial/professional users unless other conditions deem it necessary 	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the

³⁹ Substances and mixtures which are listed in Appendix 1-6 of Annex XVII to Regulation (EC) No 1907/2006 (REACH) and which are assigned H340, H350 or H360 are restricted to industrial / professional users and normally not supplied to the general public (see entry 28, 29 and 30 in Annex XVII to REACH, as amended. The list of subsequent amendments of Annex XVII is accessible at <http://echa.europa.eu/web/guest/regulations/reach/legislation>.

<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none">- Specify protective gloves. <p>★ Highly recommended</p>			<p>applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.6 Carcinogenicity

Hazard category	Signal word	Hazard statement
1A and 1B	Danger	H350 May cause cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
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
<p>P201</p> <p>Obtain special instructions before use.</p> <ul style="list-style-type: none"> ★ Highly recommended for category 1A and 1B ★ Recommended for category 2 <p>P202</p> <p>Do not handle until all safety precautions have been read and understood.</p> <ul style="list-style-type: none"> ★ Optional where P201 is assigned 	<p>P308 + P313</p> <p>IF exposed or concerned: Get medical advice/attention.</p> <ul style="list-style-type: none"> ★ Highly recommended for category 1A and 1B ★ Recommended for category 2 	<p>P405</p> <p>Store locked up.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public⁴⁰ ★ Optional for industrial/professional users unless other conditions deem it necessary 	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not

⁴⁰ Substances and mixtures which are listed in Appendix 1-6 of Annex XVII to Regulation (EC) No 1907/2006 (REACH) and which are assigned H340, H350 or H360 are restricted to industrial / professional users and normally not supplied to the general public (see entry 28, 29 and 30 in Annex XVII to REACH as amended. The list of subsequent amendments of Annex XVII is accessible at: <http://echa.europa.eu/web/guest/regulations/reach/legislation>.

<p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <ul style="list-style-type: none">- Specify protective gloves. <p>★ Highly recommended</p>			<p>necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.7 Reproductive toxicity

Hazard category	Signal word	Hazard statement
1A and 1B	Danger	H360 May damage fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)
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. ★ Highly recommended for category 1A and 1B ★ Recommended for category 2 P202 Do not handle until all safety precautions have been read and understood.	P308 + P313 IF exposed or concerned: Get medical advice/attention. ★ Highly recommended for category 1A and 1B ★ Recommended for category 2	P405 Store locked up. ★ Highly recommended for the general public ⁴¹ ★ Optional for industrial / professional users unless other conditions deem it necessary	P501 Dispose of contents/container to in accordance with local/regional/national/international regulations (to be specified). ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous

⁴¹ Substances and mixtures which are listed in Appendix 1-6 of Annex XVII to Regulation (EC) No 1907/2006 (REACH) and which are assigned H340, H350 or H360 are restricted to industrial / professional users and normally not supplied to the general public (see entry 28, 29 and 30 in Annex XVII to REACH as amended. The list of subsequent amendments of Annex XVII is accessible at ECHA website: <http://echa.europa.eu/web/guest/regulations/reach/legislation>).

<p>★ Optional where P201 is assigned</p> <p>P280</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Manufacturer/supplier to specify type of equipment.</p> <p>- Specify protective gloves.</p> <p>★ Highly recommended</p>			<p>waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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1 **7.3.3.7 Reproductive toxicity**

2 **Hazard category** **Signal word** **Hazard statement** No hazard pictogram

3 Additional category for effects on
4 or via lactation No signal word H362 May cause harm to breast-fed children

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Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>P201</p> <p>Obtain special instructions before use.</p> <p>★ Highly recommended</p> <p>P260</p> <p>Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <ul style="list-style-type: none"> - <i>specify do not breathe dusts or mists.</i> - <i>If inhalable particles of dusts or mists may occur during use.</i> <p>★ Highly recommended</p> <p>P263</p> <p>Avoid contact during pregnancy/while nursing.</p> <p>★ Highly recommended</p>	<p>P308 + P313</p> <p>IF exposed or concerned: Get medical advice/attention.</p> <p>★ Recommended</p>		

<p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>... Manufacturer / supplier to specify parts of the body to be washed after handling.</p> <p>★ Optional</p> <p>P270</p> <p>Do not eat, drink or smoke when using this product.</p> <p>★ Recommended for the general public</p> <p>★ Optional for industrial / professional users</p> <p>★ Recommended for inclusion in the safety data sheet</p>			
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7.3.3.8 Specific target organ toxicity after single exposure



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
<p>P260</p> <p>Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <ul style="list-style-type: none"> ★ Highly recommended where the substance / mixture is volatile or a gas or where exposure via inhalation is possible, e.g. through spraying or inhalable dust or in case H370 indicates inhalation as a route of exposure <p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>... Manufacturer / supplier to specify parts</p>	<p>P308 + P311</p> <p>IF exposed or concerned: Call a POISON CENTER/doctor...</p> <p>Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <ul style="list-style-type: none"> ★ Highly recommended <p>P321</p> <p>Specific treatment (see ... on this label)</p> <p>... Reference to supplemental first aid instruction.</p> <p>- if immediate measures are required.</p>	<p>P405</p> <p>Store locked up.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial / professional users unless other conditions deem it necessary 	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary. ★ Recommended for industrial / professional users if there are specific disposal requirements

<p>of the body to be washed after handling.</p> <ul style="list-style-type: none">★ Optional <p>P270</p> <p>Do not eat, drink or smoke when using this product.</p> <ul style="list-style-type: none">★ Recommended for the general public★ Optional for industrial / professional users★ Recommended for inclusion in the safety data sheet	<ul style="list-style-type: none">★ Highly recommended only in exceptional cases where specific treatment is known and required		<p>above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.8 Specific target organ toxicity after single exposure

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

Precautionary Statements			
Prevention	Response	Storage	Disposal
<p>P260</p> <p>Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <ul style="list-style-type: none"> ★ Highly recommended where the substance / mixture is volatile or a gas or where exposure via inhalation is possible, e.g. through spraying or inhalable dust or in case H371 indicates inhalation as a route of exposure <p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>... Manufacturer / supplier to specify parts of the body to be washed after handling.</p>	<p>P308 + P311</p> <p>IF exposed or concerned: Call a POISON CENTER/ doctor/...</p> <p>Manufacturer/supplier to specify the appropriate source of emergency medical advice</p> <ul style="list-style-type: none"> ★ Recommended 	<p>P405</p> <p>Store locked up.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial / professional users unless other conditions deem it necessary 	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary. ★ Recommended for industrial /

<p>★ Optional</p> <p>P270</p> <p>Do not eat, drink or smoke when using this product.</p> <p>★ Recommended for the general public</p> <p>★ Optional for industrial / professional users</p> <p>★ Recommended for inclusion in the safety data sheet</p>			<p>professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.8 Specific target organ toxicity after single exposure

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
<p>P261</p> <p>Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <p>- may be omitted if P260 is given on the label.</p> <p>★ Recommended</p> <p>P271</p> <p>Use only outdoors or in a well-ventilated area.</p> <p>★ Highly recommended for the general public</p> <p>★ Optional for industrial / professional users</p>	<p>P304 + P340</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>★ Optional</p> <p>P312</p> <p>Call a POISON CENTER/doctor/.../ if you feel unwell.</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <p>★ Recommended unless P310, P311 or P313 is assigned</p>	<p>P403 + P233</p> <p>Store in a well-ventilated place. Keep container tightly closed.</p> <p>- if product is volatile so as to generate hazardous atmosphere.</p> <p>★ Recommended unless P404 is assigned</p> <p>P405</p> <p>Store locked up.</p> <p>★ Highly recommended for the general public</p> <p>★ Optional for industrial / professional users unless other conditions deem it necessary</p>	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the</p>

			disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.
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7.3.3.9 Specific target organ toxicity after repeated exposure

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P260</p> <p>Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <p>★ Highly recommended where the substance / mixture is volatile or a gas or where exposure via inhalation is possible, e.g. through spraying or inhalable dust or in case H372 indicates inhalation as a route of exposure</p> <p>P264</p> <p>Wash ... thoroughly after handling.</p> <p>... Manufacturer / supplier to specify parts of the body to be washed after handling.</p>	<p>P314</p> <p>Get medical advice/attention if you feel unwell.</p> <p>★ Recommended unless P310, P311, P312 or P313 is assigned</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are</p>

<p>★ Optional</p> <p>P270</p> <p>Do not eat, drink or smoke when using this product.</p> <p>★ Recommended for the general public</p> <p>★ Optional for industrial / professional users</p> <p>★ Recommended for inclusion in the safety data sheet</p>			<p>specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>
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7.3.3.9 Specific target organ toxicity after repeated exposure

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P260</p> <p>Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>Manufacturer/supplier to specify applicable conditions.</p> <p>★ Highly recommended where the substance / mixture is highly volatile or a gas or where exposure via inhalation is possible, e.g. through spraying or inhalable dust or in case H373 indicates inhalation as a route of exposure</p>	<p>P314</p> <p>Get medical advice/attention if you feel unwell.</p> <p>★ Recommended unless P310, P311, P312 or P313 is assigned</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are</p>

			specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.
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7.3.3.10 Aspiration hazard

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

Precautionary Statements

Prevention	Response	Storage	Disposal
	<p>P301 + P310</p> <p>IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...</p> <p>...Manufacturer/supplier to specify the appropriate source of emergency medical advice.</p> <ul style="list-style-type: none"> ★ Highly recommended, in combination with P331 <p>P331</p> <p>Do NOT induce vomiting.</p> <ul style="list-style-type: none"> ★ Highly recommended, in combination with P301 +P310 	<p>P405</p> <p>Store locked up.</p> <ul style="list-style-type: none"> ★ Highly recommended for the general public ★ Optional for industrial / professional users unless other conditions deem it necessary 	<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/ national/international regulations (to be specified).</p> <ul style="list-style-type: none"> ★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary. ★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.



7.3.4 Specific precautionary statements for environmental hazards

7.3.4.1 Hazardous to the aquatic environment – Acute hazard

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P273</p> <p>Avoid release to the environment.</p> <p>- if this is not the intended use.</p> <p>★ Recommended</p>	<p>P391</p> <p>Collect spillage.</p> <p>★ Recommended</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>



7.3.4.1 Hazardous to the aquatic environment – Chronic hazard

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P273</p> <p>Avoid release to the environment.</p> <p>- if this is not the intended use.</p> <p>★ Recommended</p>	<p>P391</p> <p>Collect spillage.</p> <p>★ Recommended</p>		<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>

1 **7.3.4.1 Hazardous to the aquatic environment – Chronic hazard**

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

Precautionary Statements

Prevention	Response	Storage	Disposal
<p>P273</p> <p>Avoid release to the environment.</p> <p>- if this is not the intended use.</p> <p>★ Recommended</p>			<p>P501</p> <p>Dispose of contents/container to ...</p> <p>... in accordance with local/regional/national/international regulations (to be specified).</p> <p>★ Mandatory for the general public if the substance / mixture is subject to legislation on hazardous waste. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p> <p>★ Recommended for industrial / professional users if there are specific disposal requirements above the normal expectation for the disposal of chemicals. It is recommended to specify the site of disposal while a reference to the applicable legislation is not necessary.</p>

7.3.5 Additional hazards

7.3.5.1 Hazardous to the ozone layer

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
			<p>P502</p> <p>Dispose of contents/container to ...</p> <p>Refer to manufacturer/supplier for information on recovery / recycling</p> <ul style="list-style-type: none"> ★ Mandatory for the general public ★ Highly recommended for industrial / professional users

7.4. Examples for the selection of precautionary statements for the label

This section provides practical examples on how to select precautionary statements for various model substances. The set of precautionary statements to be prioritised for the label is highlighted in **bold underlined (highly recommended)** and underlined (recommended), while the optional statements appear in normal letters (no highlighting) and the statements not to be used/unless condition applies/ inclusion on safety data sheet only are marked in grey colour.

Please note that even if a substance or mixture has the same hazards as one of the following examples, another set of precautionary statements might be appropriate based on the specific conditions for use given in the tables above.

Example A. Substance X assigned a physical and various health hazard classifications

A. Classification and hazard statements:

Flam. Liq. 2	H225 Highly flammable liquid and vapour
Acute Tox. 3 (oral)	H301 Toxic if swallowed
Acute Tox. 3 (dermal)	H311 Toxic in contact with skin
Acute Tox. 3 (inhalation)	H331 Toxic if inhaled
STOT-SE 1	H370 Causes damage to liver through dermal exposure

B. Further information:

Substance X is presumed to be volatile, but not so as to generate a potentially explosive atmosphere. There is possible exposure via inhalation. Specific extinction media are not necessary. Specific treatment/measures is/are not urgently required. No specific disposal precautionary statements are required since the substance is not intended to be used by the general public, but only by industrial/professional users.

C. Precautionary statements on the basis of the classification (see Annex I and IV to CLP) and according to the guidance:

Acute Tox. 3 (Oral)	Acute Tox. 3 (Dermal)	Acute Tox. 3 (Inhalation)	STOT-SE 1	Flam. Liq. 2
P264	<u>P280</u>	P261	<u>P260</u>	<u>P210</u>
P270		P271	P264	<u>P233</u>
			P270	P240
				P241
				P242
				P243
				P280

<u>P301 + P310</u> P321 P330	P312 P321 P361 + P364 P363 P302 + P352	<u>P304 + P340</u> P311 P321	<u>P308 + P311</u> P321	P303 + P361 + P353 P370 + P378
P405	P405	<u>P403 + P233</u> P405	P405	P403 + P235
P501	P501	P501	P501	P501

Explanation on use of bolding, underline and grey marker:

PXXX = highly recommended;

PXXX = recommended;

PXXX = optional;

PXXX = not to be used/unless condition applies/inclusion on safety data sheet only

D. Selection of highly recommended and recommended precautionary statements:

Where the same statement is assigned to different hazards, but with different priority, the most conservative approach is taken. Where appropriate, precautionary statements are combined into a single combination statement. Duplication of individual phrases is avoided. The selection results in the following set of P-statements:

<u>P210</u>	<u>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</u>
<u>P260</u>	<u>Do not breathe dust/fume/gas/mist/vapours/spray.</u>
<u>P280</u>	<u>Wear protective gloves/protective clothing/eye protection/face protection.</u>
<u>P301+P310</u>	<u>IF SWALLOWED: Immediately call a POISON CENTER/doctor/...</u>
<u>P308+P311</u>	<u>IF exposed or concerned: Call a POISON CENTER/doctor/...</u>
<u>P304+P340</u>	<u>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</u>
<u>P403+P233</u>	<u>Store in a well-ventilated place. Keep container tightly closed.</u>

E. Result:

Selection in line with the guidance results in seven precautionary statements. A substantial reduction is achieved compared to the starting set of potentially applicable statements for the CLP hazard label, assignable on the basis of the underlying hazards.

The selected precautionary statements must be placed on the CLP hazard label. As an SDS needs to be prepared, the statements would also have to be included in the SDS, under heading 2.2 ("Label elements"), see the *Guidance on the compilation of safety data sheets*. The de-selected statements can be introduced under the relevant headings of the SDS to provide the industrial or professional user with sufficient information to handle the substance safely.

Example B. Sodium peroxide Na₂O₂, (EC: 215-209-4) assigned a severe physical and health hazard classification

A. Classification and hazard statements:

Ox. Sol. 1 H271 May cause fire or explosion; strong oxidiser
 Skin Corr. 1A H314 Causes severe skin burns and eye damage

B. Further information:

Sodium peroxide is a granular solid and is presumed to be non-volatile. Dust exposure during handling and use is possible. Specific extinction media are not necessary. Specific treatment/measures is/are not urgently required. No specific disposal precautionary statements are required since the substance is not intended to be used by the general public, but only by industrial/professional users.

C. Precautionary statements on the basis of the classification (see Annex I and IV to CLP) and according to the guidance:

Ox. Sol. 1	Skin Corr. 1A
<u>P210</u>	
P220	<u>P260</u>
<u>P221</u>	P264
P280	<u>P280</u>
P283	
P306+P360	P301+P330+P331
<u>P371+P380+P375</u>	<u>P303+P361+P353</u>
P370+P378	P363
	P304+P340
	<u>P310</u>
	P321
	<u>P305+P351+P338</u>
-	P405
P501	P501

D. Selection of highly recommended and recommended precautionary statements:

Where the same statement is assigned to different hazards, but with different priority, the most conservative approach is taken (i.e. the highest priority must be taken into account). Where appropriate, precautionary statements are combined into a single combination statement. Duplication of individual phrases is avoided. The selection results in the following set of P-statements:

<u>P210</u>	<u>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</u>
<u>P221</u>	<u>Take any precaution to avoid mixing with combustibles.</u>
<u>P260</u>	<u>Do not breathe dust/fume/gas/mist/vapours/spray.</u>
<u>P280</u>	<u>Wear protective gloves/protective clothing/eye protection/ face protection.</u>
<u>P301+P330+P331</u>	<u>IF SWALLOWED: rinse mouth. Do NOT induce vomiting.</u>
<u>P303+P361+P353+310</u>	<u>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor/...</u>
<u>P305+P351+P338</u>	<u>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</u>
<u>P371+P380+P375</u>	<u>In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.</u>

E. Result:

Selection in line with the guidance results in eight, mostly combined, precautionary statements, A substantial reduction is achieved compared to the starting set of potentially applicable statements for the CLP hazard label, assignable on the basis of the underlying hazards.

The selected precautionary statements must be placed on the CLP hazard label. As an SDS needs to be prepared, they would also have to be included in the SDS, under heading 2.2 ("Label elements"), see the *Guidance on the compilation of safety data sheets*.

The de-selected statements can be introduced under the relevant headings of the SDS to provide the industrial or professional user with sufficient information to handle the substance safely.

Example C. Dimethylzinc (EC: 208-884-1) assigned physical, health and environmental classifications

A. Classification and hazard statements:

Pyr. Liq. 1	H250	Catches fire spontaneously if exposed to air
Water-react. 1	H260	In contact with water releases flammable gases which may ignite spontaneously
Skin Corr. 1B	H314	Causes severe skin burns and eye damage
Aquatic Acute 1	H400	Very toxic to aquatic life (redundant because of H410)
Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects

B. Further information:

Dimethylzinc should be regarded as volatile. Therefore, there is possible exposure via inhalation. Specific extinction media are necessary, because water will increase the risk when used for the extinction of fire. As the disposal of the packaging presents a hazard to human health or the environment, specific disposal precautionary statements are required (although the substance is not intended to be used by the general public, but only by industrial/professional users).

C. Precautionary statements on the basis of the classification (see Annex I and IV to CLP) and according to the guidance:

Pyr. Liq.1	Water-react. 1	Skin Corr. 1B	Aquatic Acute 1	Aquatic Chronic 1
P210 P222 P280 P231(add)	P223 P231+P232 P280	P260 P264 P280	P273	P273
P302+P334 P370+P378	P335+P334 P370+P378	P301+P330+P331 P303+P361+P353 P363 P304+P340 P310 P321 P305+P351+P338	P391	P391
P422 -	P402+P404 P501	P405 P501	- P501	- P501

D. Selection of highly recommended and recommended precautionary statements:

Where the same statement is assigned to different hazards, but with different priority, the most conservative approach is taken (i.e. the highest priority must be taken into account). Where appropriate, precautionary statements are combined into a single combination statement. Duplication of individual phrases is avoided.

P303+ P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

and

P302+P335+P334+P310 IF ON SKIN: Brush off loose particles from skin. Immerse in cool water.⁴² Immediately call a POISON CENTER/doctor/...

were merged into one single combination phrase:

P303+ P335+P334+P310+P361 where duplication of the message was avoided.

The selection results in the following set of P-statements:

P210 **Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.**

P260 **Do not breathe dust/fume/gas/mist/vapours/spray.**

P273 **Avoid release to the environment.**

P280 **Wear protective gloves/protective clothing/eye protection/face protection.**

P231+P232 **Handle under inert gas. Protect from moisture.**

P301+P330+P331 **IF SWALLOWED: rinse mouth. Do NOT induce vomiting.**

P303+ P335+P334+P310+P361 **IF ON SKIN (or hair): Brush off loose particles from skin. Immerse in cool water.⁴³ Immediately call a POISON CENTER/doctor/... Remove/Take off immediately all contaminated clothing.**

P305+P351+P338 **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**

P370+P378 **In case of fire: Use ... to extinguish.**

⁴² The sub-phrase of P334 "/wrap in wet bandages" is not to be used for water-reactive substances and mixtures category 1 (Table 7.3.2.12 in sub-section 7.3 of this guidance).

⁴³ The sub-phrase of P334 "/wrap in wet bandages" is not to be used for water-reactive substances and mixtures category 1 (Table 7.3.2.12 in sub-section 7.3 of this guidance).

E. Result:

Selection in line with the guidance results in nine, partly combined, precautionary statements.

A substantial reduction is achieved compared to the starting set of potentially applicable statements for the CLP hazard label, assignable on the basis of the underlying hazards. For example, P264 has not been selected, because P280 is more relevant.

To further reduce the number of the P-statements and the amount of digestible information on the label, the statements P391 and P501 have been put in the SDS, as the prevention and response statements for the physical and health hazards appear to contain the more urgent advice for the label.

The selected precautionary statements must be placed on the CLP hazard label. As an SDS needs to be prepared, they would also have to be included in the SDS, under heading 2.2 ("Label elements"), see the *Guidance on the compilation of safety data sheets*.

The de-selected statements can be introduced under the relevant headings of the SDS to provide the industrial or professional user with sufficient information to handle the substance safely.

Example D. Mixture ABC for use by the general public

A. Classification and hazard statements:

Flam. Liq. 2	H225 Highly flammable liquid and vapour
Acute Tox. 4 (oral)	H302 Harmful if swallowed
Skin irrit. 2	H315 Causes skin irritation

B. Further information:

Mixture ABC is presumed to be volatile, but not so as to generate a potentially explosive atmosphere. Specific extinction media are not necessary. Specific treatment is not urgently required. There are no specific disposal requirements. The mixture is intended to be used by the general public.

C. Precautionary statements on the basis of the classification (see Annex I and IV to CLP) and according to the guidance:

Flam. Liq. 2	Acute Tox. 4 (Oral)	Skin Irrit. 2
	<u>P101, P102</u>	
<u>P210</u>	<u>P264</u>	P264
<u>P233</u>	<u>P270</u>	<u>P280</u>
P240		
P241		
P242		
P243		
P280		
P303 + P361 + P353 P370 + P378	P301+P312 P330	P302+P352 P321 P332+P313 P362
P403 + P235	-	-
P501	P501	-

D. Selection of highly recommended and recommended precautionary statements:

Where the same statement is assigned to different hazards, but with different priority, the most conservative approach is taken. Where appropriate, precautionary statements are combined into a single combination statement. Duplication of individual phrases is avoided. The selection results in the following set of P-statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves.

1 E. Result:

2 **Selection in line with the guidance results in seven precautionary statements. A**
3 **substantial reduction is achieved compared to the starting set of potentially**
4 **applicable statements for the CLP hazard label, assignable on the basis of the**
5 **underlying hazards.**

6 The selected precautionary statements must be placed on the CLP hazard label. As an SDS
7 needs to be prepared, they would also have to be included in the SDS, under heading 2.2
8 ("Label elements"), see the *Guidance on the compilation of safety data sheets*.

9 The de-selected statements can be introduced under the relevant headings of the SDS to
10 provide the industrial or professional user with sufficient information to handle the
11 substance safely.

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Attachment: Glossary

ADR

the European Agreement concerning the International Carriage of Dangerous Goods by Road (concluded in Geneva on 30 September 1957) that has been implemented within the EU through Directive 2008/68/EC;

Acute toxicity

adverse effects occurring following oral or dermal administration of a single dose of a substance or mixture, or multiple doses given within 24 hours, or an inhalation exposure of 4 hours;

Aerosols

means aerosol dispensers, any non-refillable receptacles made of metal, glass or plastics and containing a gas compressed, liquefied or dissolved under pressure, with or without a liquid, paste or powder, and fitted with a release device allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or in a liquid state or in a gaseous state;

Alloy

a metallic material, homogeneous on a macroscopic scale, consisting of two or more elements so combined that they cannot be readily separated by mechanical means; alloys are considered to be mixtures for the purposes of CLP;

Article

an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition;

Aspiration

the entry of a liquid or solid substance or mixture directly through the oral or nasal cavity, or indirectly from vomiting, into the trachea and lower respiratory system;

BPR

Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products (Biocidal Products Regulation);

Carcinogen

a substance or a mixture of substances which induces cancer or increases its incidence;

CAS

Chemical Abstract Service;

1	Chemically unstable gas	a flammable gas that is able to react explosively
2		even in the absence of air or oxygen;
3		
4	CLP or CLP Regulation	Regulation (EC) No 1272/2008 on Classification,
5		Labelling and Packaging of Substances and
6		Mixtures;
7	CMR	a substance or mixture which is carcinogenic,
8		mutagenic or toxic to reproduction;
9	Competent authority (CA)	the authority or authorities or bodies established
10		by the member states to carry out the obligations
11		arising from the CLP Regulation;
12	Corrosive to metals	materially damaging, or even destroying, metals
13		by chemical action of a substance or a mixture;
14	CRC	child-resistant closure;
15	CRF	child-resistant fastening;
16	Distributor	any natural or legal person established within the
17		Community, including a retailer, who only stores
18		and places on the market a substance, on its own
19		or in a mixture, for third parties;
20	Downstream user	any natural or legal person established within the
21		Community, other than the manufacturer or the
22		importer, who uses a substance, either on its
23		own or in a mixture, in the course of his
24		industrial or professional activities. A distributor
25		or a consumer is not a downstream user. A re-
26		importer, exempted pursuant to Article 2(7)(c)
27		REACH Regulation, shall be regarded as a
28		downstream user;
29	DPD	Dangerous Preparations Directive (1999/45/EC);
30	DSD	Dangerous Substances Directive (67/548/EEC);
31	ECHA	European Chemicals Agency or "the Agency,"
32		established under the REACH Regulation;
33	EU	European Union;
34	Explosive article	an article containing one or more explosive
35		substances or mixtures;
36	Explosive substances and mixtures	a solid or liquid substance (or mixture of
37		substances) which is in itself capable by chemical
38		reaction of producing gas at such a temperature
39		and pressure and at such a speed as to cause
40		damage to the surroundings. Pyrotechnic
41		substances are included even when they do not
42		evolve gases;

1	Eye irritation	the production of changes in the eye following
2		the application of test substance to the anterior
3		surface of the eye, which are fully reversible
4		within 21 days of application;
5	Flammable gas	a gas or gas mixture having a flammable range
6		with air at 20 °C and a standard pressure of
7		101.3 kPa;
8	Flammable liquid	a liquid having a flash point of not more than
9		60°C;
10	Flash point	the lowest temperature (corrected to a standard
11		pressure of 101.3 kPa) at which the application of
12		an ignition source causes the vapours of a liquid
13		to ignite under specified test conditions;
14	Flammable solid	a solid which is readily combustible, or may
15		cause or contribute to fire through friction;
16	GHS	Globally Harmonised System of Classification and
17		Labelling of Chemicals developed within the
18		United Nations (UN) structure;
19	Hazard category	the division of criteria within each hazard class,
20		specifying hazard severity;
21	Hazard class	the nature of the physical, health or
22		environmental hazard;
23	Hazard pictogram	graphical composition that includes a symbol plus
24		other graphic elements, such as a border,
25		background pattern or colour that is intended to
26		convey specific information about the hazard
27		concerned;
28	Hazard statement	a phrase assigned to a hazard class and category
29		that describes the nature of the hazards of a
30		hazardous substance or mixture, including, where
31		appropriate, the degree of hazard;
32	Hazardous	means fulfilling the criteria relating to physical
33		hazards, health hazards or environmental
34		hazards, laid down in parts 2 to 5 of Annex I of
35		CLP;
36	IMDG Code	International Maritime Dangerous Goods Code for
37		the transport of dangerous goods by sea;
38	Import	the physical introduction into the customs
39		territory of the Community;
40	Importer	any natural or legal person established within the
41		Community who is responsible for import;
42	INCI	International Nomenclature of Cosmetic
43		Ingredients;

1	Intermediate packaging	packaging placed between inner packaging, or
2		articles, and outer packaging;
3	IUCLID	International Uniform Chemical Information
4		Database;
5	IUPAC	International Union of Pure and Applied
6		Chemistry;
7	Label	an appropriate group of written, printed or
8		graphic information elements concerning a
9		hazardous substances or mixture, selected as
10		relevant to the target sector (s), that is affixed
11		to, printed on, or attached to the immediate
12		container of a hazardous substance or mixture,
13		or to the outside packaging of a hazardous
14		substances or mixture (definition follows Chapter
15		1.2 of the UN GHS);
16	Label element	one type of information that has been
17		harmonised for use in a label, e.g. hazard
18		pictogram, signal word;
19	M-factor	a multiplying factor applied to the concentration
20		of a substance classified as hazardous to the
21		aquatic environment acute category 1 or chronic
22		category 1, and is used to derive by the
23		summation method the classification of a
24		mixture in which the substance is present;
25	Manufacturer	any natural or legal person established within
26		the Community who manufactures a substance
27		within the Community;
28	Manufacturing	production or extraction of substances in the
29		natural state;
30	Mixture	means a mixture or solution composed of two or
31		more substances. The UN GHS Chapter 1.2
32		includes the phrase, "in which they do not react"
33		at the end of an otherwise identical definition;
34	Mutagen	an agent giving rise to an increased occurrence
35		of mutations in populations of cells and /or
36		organisms;

Organic peroxide

a liquid or solid organic substance which contains the bivalent -O-O- structure and may be considered a derivative of hydrogen peroxide, where one or both of the hydrogen atoms have been replaced by organic radicals. The term also includes organic peroxide mixtures (formulations) containing at least one organic peroxide;

Oxidising gas

any gas which may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does;

Oxidising liquid

a liquid substance or mixture which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material;

Oxidising solid

a solid substance or mixture which, while in itself not necessarily combustible, may, generally by yielding oxygen, cause, or contribute to, the combustion of other material;

Package

the complete product of the packing operation, consisting of the packaging and its contents;

Packaging

one or more receptacles and any other components or materials necessary for the receptacles to perform their containment and other safety functions;

Placing on the market

supplying or making available, whether in return for payment or free of charge, to a third party. Import shall be deemed to be placing on the market;

PPPR

Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC;

Precautionary statement

a phrase that describes recommended measure(s) to minimise or prevent adverse effects resulting from exposure to a hazardous substance or mixture due to its use or disposal;

Product identifier

details permitting the identification of the substance or mixture;

Pyrophoric liquid

a liquid substance or mixture which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;

1	Pyrophoric solid	a solid substance or mixture which, even in
2		small quantities, is liable to ignite within five
3		minutes after coming into contact with air;
4	Pyrotechnic article	an article containing one or more pyrotechnic
5		substances or mixtures;
6	Pyrotechnic substance	a substance or mixture of substances designed
7		to produce an effect by heat, light, sound, gas or
8		smoke or a combination of these as the result of
9		non-detonative self-sustaining exothermic
10		chemical reactions;
11	REACH or REACH Regulation	Regulation (EC) No 1907/2006 concerning the
12		Registration, Evaluation, Authorisation and
13		Restriction of Chemicals;
14	Registrant	the manufacturer or the importer of a substance
15		or the producer or importer of an article
16		submitting a registration for a substance under
17		the REACH Regulation;
18	Reproductive toxicity	includes adverse effects on sexual function and
19		fertility in adult males and females, as well as
20		developmental toxicity in the offspring and
21		effects on or via lactation;
22	Respiratory sensitiser	a substance that will lead to hypersensitivity of
23		the airways following inhalation of the
24		substance;
25	SADT	Self-Accelerating Decomposition Temperature;
26	SDS	safety data sheet;
27	Self-heating substance or mixture	a solid or liquid substance or mixture, other than
28		a pyrophoric liquid or solid, which, by reaction
29		with air and without energy supply, is liable to
30		self-heat; this substance or mixture differs from
31		a pyrophoric liquid or solid in that it will ignite
32		only when in large amounts (kilograms) and
33		after long periods of time (hours or days);
34	Self-reactive substance or mixture	a thermally unstable liquid or solid substance or
35		mixture liable to undergo a strongly exothermic
36		decomposition even without participation of
37		oxygen (air). This definition excludes substances
38		and mixtures classified under CLP as explosive,
39		organic peroxides or as oxidising;
40	Serious eye damage	the production of tissue damage in the eye, or
41		serious physical decay of vision, following
42		application of a test substance to the anterior
43		surface of the eye, which is not fully reversible
44		within 21 days of application;

1	Signal word	a word that indicates the relative level of severity of
2		hazards to alert the potential reader of the hazard; the
3		following two levels are distinguished:
4		a) Danger means a signal word indicating the more
5		severe hazard categories; and
6		b) Warning means a signal word indicating the less
7		severe hazard categories;
8	Skin corrosion	the production of irreversible damage to the skin,
9		namely visible necrosis through the epidermis and into
10		the dermis, following the application of a test substance
11		up to 4 hours;
12	Skin irritation	the production of reversible damage to the skin following
13		the application of a test substance for up to 4 hours;
14	Skin sensitiser	a substance that will lead to an allergic response
15		following skin contact;
16	Specific target organ toxicity	specific target organ toxicity, cf. STOT, STOT-SE and
17		STOT-RE;
18	STOT-RE	specific target organ toxicity arising from a repeated
19		exposure to a substance or mixture;
20	STOT-SE	specific target organ toxicity arising from a single
21		exposure to a substance or mixture;
22	Substance	a chemical element and its compounds in the natural
23		state or obtained by any manufacturing process,
24		including any additive necessary to preserve its stability
25		and any identified impurity deriving from the process
26		used, but excluding any solvent which may be separated
27		without affecting the stability of the substance or
28		changing its composition;
29	Trade name	a designation under which a substance or mixture is
30		placed on the market;
31	TWD	tactile warnings of danger;
32	UN	United Nations;
33	UN GHS	Globally Harmonised System of Classification and
34		Labelling of Chemicals - the international criteria agreed
35		by the United Nation Economic and Social Council (UN
36		ECOSOC) for the classification and labelling of hazardous
37		substances and mixtures;
38	UN RTDG	the United Nations Recommendations on the Transport
39		of Dangerous Goods;
	Unstable explosive	an explosive substance or mixture which is thermally
		unstable and/or too sensitive for normal handling,
		transport and use;

1		
2	Use	any processing, formulation, consumption, storage,
3		keeping, treatment, filling into containers, transfer from
4		one container to another, mixing, production of an
5		article or any other utilisation;
6		

