The mhchem Bundle

documentation for version 3.08

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The mhchem bundle consists of two packages: mhchem and rsphrase.

The mhchem package provides two commands: one for typesetting **chemical molecular formulae** and one for typesetting **chemical equations** with these formulae.

The rsphrase package contains the text of all official **Risk and Safety (R and S) Phrases** that are used to label chemicals. At the time being, these phrases are available in Danish, Englisch, French, German (current spelling), Spanish, and Italian.

Your feedback is very welcome

If you use or evaluate this bundle of packages, I would very much like to hear from you. Please drop me a line stating what you do like or not like, bugs you found, what features you miss, what improvements you suggest, what phrases in the manual to correct, etc. You do not have to write novels, a one-line e-mail in absolutely fine with me.

Bugs and changes are still possible

Please note that there may still be some bugs and that the packages' behaviour may differ slightly in the future (for instance the width of an equation might differ by some points which in turn could lead to different page breaks).

Please make sure you read and agreed to the license (`legal.txt`) for this bundle, in particular the limited warranty.

Most Recent Changes

2010-06-16 v3.08, rsphrase
- added: Italian phrases, thanks to Lorenzo Vagnarelli

2007-05-19 v3.07, mhchem
- fixed: loading tikz automatically when option pdf-filled is used
- fixed: empty `^{}` and `_{}` work properly

2007-04-11 v3.06, mhchem
- fixed: font size for superscript above <=>

2006-12-17 v3.05, mhchem
- fixed: more complex structures (bonds, hyphens etc.) in TOC
- changed: `$...$` replaces `\cmath{...}`
- fixed: parenthesis, brackets, braces in corrent font

2006-09-21 v3.04, mhchem
- added: pgf-filled arrows

2006-06-23 v3.03, mhchem
- added: pgf arrows
- added: `H2_{(aq)}` adds a small space before the '(aq)'
- fixed: line height of formulae with <-> was too large

2006-02-23 v3.02, mhchem (not published)
- fixed: `\ce` now works properly in `\section` and `\tableofcontents`

2006-01-24 v3.01, rsphrase
- fixed: you don't need have all hyphenations patterns installed any more
- fixed: a typo

2006-01-24 v3.01, mhchem
- fixed: leftside `^{\cmath{x}}` now works properly properly
- fixed: `\cmath` uses standard math font (not chemical one) even in superscripts and subscripts
- fixed: improved backward compatibility for version=1

2005-07-15 v3.00, mhchem
- added: more bonds

Contents

The mhchem Package

Introduction

For typesetting a single chemical formula from time to time, one can use LaTeX's math mode, manually setting the letters in an upright font.

$\frac{1}{2}\,\mathrm{H}_2\mathrm{O}$ `$\frac{1}{2}\,\mathrm{H}_2\mathrm{O}$`

In addition, one has to care about the height of subscripts, as the following example shows (2 and 7 are not aligned properly).

$3\,\mathrm{Cr}_2\mathrm{O}_7^{2-}$ `$3\,\mathrm{Cr}_2\mathrm{O}_7^{2-}$`

So one would have to write

$3\,\mathrm{Cr}_2\mathrm{O}_7^{2-}$ `$3\,\mathrm{Cr}_2^{\strut}\mathrm{O}_7^{2-}$`

Other chemical packages are there to assist you with these two points. This package, however, goes further. To mention only a few of its features:

- adapts to the surrounding environment
  Used inside text, the formula is displayed using the current text font; used in math mode, it adapts its size to the four possible sizes (e.g.).
- more natural input
  I am convinced that (when expecting a chemical formula) it is easier to read and write `H3PO4` instead of `H_3PO_4`. The latter is grouped wrongly according to the Gestalt rules. Furthermore, you can copy formulas from text e-mails and even Word documents and save a lot of time as you do not have to insert underscores. (One could argue that this is inconsistend with math mode and could lead to confusions. I believe, however that `O2` and `x_2` are sufficiently distinct concepts).
- easy input of amount numbers
  with automatic spacing, easy input of fractions
- fine typographic corrections
  fine correction of the height of subscripts and superscripts; right-aligned left-side sub- and superscripts

... and a lot more. But let us stop the adverts block here and see for yourself how easy it can be to typeset chemical formulae. On the left-hand side you can see the LaTeX output that was produced with the command on the right.

Preamble

In order to use all of mhchem's features, request it in your document's preamble with the command

```
\usepackage[version=3]{mhchem}                    !
```

What about the ‘version=3’? During development, I became aware that some commands needed to be changed. But what about backward compatibility? I could, of course, have freezed mhchem and published a mhchem2. However, I decided to use an option in order to switch to the new interface. One can use ‘version=3’ for the most-recent version of mhchem, but ‘version=2’ and ‘version=1’ (or no option at all, but this will yield a warning) are still there for existing documents that use an old user-interface of mhchem. Those old documents should still produce the same results. However, I cannot guarantee 100% compatibility! (And, in fact, I am aware of some very minor incompatibilities. If you need an older version to reproduce your result, just mail me.)

If you already worked with version 1 or 2, you may want to read the section ‘Major Changes’ on page 13.

Basics

H_2O	`\ce{H2O}`
Sb_2O_3	`\ce{Sb2O3}`
H^+	`\ce{H+}`
CrO_4^{2-}	`\ce{CrO4^2-}`
$AgCl_2^-$	`\ce{AgCl2-}`
$[AgCl_2]^-$	`\ce{[AgCl2]-}`
Y^{99+}	`\ce{Y^{99}+}`
Y^{99+}	`\ce{Y^{99+}}`
$H_{2\,(aq)}$	`\ce{H2_{(aq)}}`
NO_3^-	`\ce{NO3-}`
$(NH_4)_2S$	`\ce{(NH4)2S}`

Amounts

Place amounts directly in front of a formula. A small space will be inserted automatically.

$2\,H_2O$	`\ce{2H2O}`
$\frac{1}{2}H_2O$	`\ce{1/2H2O}`

Isotopes

${}^{227}_{90}Th^+$	`\ce{^{227}_{90}Th+}`

Fonts

A few words about fonts. LaTeX distinguishes between text fonts and math fonts. In general, the math fonts have much more glyphs: alphas, nabla operators and all that kind of suff. Ideally, the math font looks very similar to the text font and that is why many LaTeX users do not know about the two kinds of fonts. However, the distinction is important for the use of mhchem.

In the following examples, I will switch the text font to sans serif. This way, one can easily distinguish text font (sans serif) and math font (with serifs): text font and math font. When setting a document in sans serif, one would, of course, use a matching math font.

When you are in a math environment (e.g. opened and closed with a $), you could simply use `\ce`. Its content will be set in an upright font. (Remember: all variables—like V for volume—are set using an italic font, physical units and chemical elements are set using an upright font.)

V_{H_2O}	`$V_{\ce{H2O}}$`

When used in text mode, `\ce` adapts to the current text font. You could simply write a formula in one of your section titles it would be set with the correct, no matter where is appears (section title, header, contens, references, ...).

H_2O, H_2O	`\ce{H2O}, $\ce{H2O}$`
Ce^{IV}	`\ce{Ce^{IV}}`

There are some special cases. A negative charge in text mode is replaced with a dash (−−), because a text minus sign often is too short. All 'operators', e.g. '+' and reaction arrows, are always taken from the math font.

Special Symbols

$KCr(SO_4)_2 \cdot 12\,H_2O$	`\ce{KCr(SO4)2*12H2O}`
$KCr(SO_4)_2 \cdot 12\,H_2O$	`\ce{KCr(SO4)2.12H2O}`
$[Cd\{SC(NH_2)_2\}_2] \cdot [Cr(SCN)_4(NH_3)_2]_2$	`\cf{[Cd\{SC(NH2)2\}2].[Cr(SCN)4(NH3)2]2}`
$RNO_2^{-\cdot}$, $RNO_2^{-\cdot}$	`$\ce{RNO2^{-.}}$, \ce{RNO2^{-.}}` version≥2
μ-Cl	`\ce{$\mu\hyphen$Cl}` version≥3.05

Bonds

Horizontal bonds can be set using the characters −, = and # inside a formula (single, double, triple bond) inside a formula (a − at the end of a formula yields a negative charge). version≥2

$C_6H_5{-}CHO$	`\ce{C6H5-CHO}`
$X{=}Y{\equiv}Z$	`\ce{X=Y#Z}`
$A{-}B{=}C{\equiv}D$	`\ce{A\sbond B\dbond C\tbond D}`

Different books visualise bonds in extremely different ways. I will implement the possiblity to adjust the appearance in the future. In the meanwhile, the minus sign from the math font is used to display the bonds (even in text mode). The bonds are vertically aligned on the math axis. For most math fonts, this is lower than half the height of a capital letter.

The `\bond` command allows you to typeset some types of special bonds. version≥3

$\ce{A\bond{-}B\bond{=}C\bond{#}D}$	`\ce{A\bond{-}B\bond{=}C\bond{#}D}`
$\ce{A\bond{~}B\bond{~-}C}$	`\ce{A\bond{~}B\bond{~-}C}`
$\ce{A\bond{~=}B\bond{~--}C\bond{-~-}D}$	`\ce{A\bond{~=}B\bond{~--}C\bond{-~-}D}`
$\ce{A\bond{...}B\bond{....}C}$	`\ce{A\bond{...}B\bond{....}C}`
$\ce{A\bond{->}B\bond{<-}C}$	`\ce{A\bond{->}B\bond{<-}C}`

Please be aware, that the dashed bonds use the `\scalebox` macro internally, which may not be visualised correctly by some DVI viewers. If you switch to another math font, the sidebearing of the minus sign may vary, which would cause the dashed bonds to align badly (in `\bond{~=}`, for instance). In that case, you may want to adjust the layout by using the command `\mhchemoptions{minus-sidebearing-left=0.06em, minus-sidebearing-right=0.11em}` with the appropriate values.

Using Math

To use math commands inside `\ce`, one can enclose that commands with `$`. version≥3.05

$\ce{Fe(CN)_{$\frac{6}{2}$}}$

```
\ce{Fe(CN)_{$\frac{6}{2}$}}
```

$\ce{$x\,$ Na(NH4)HPO4 ->[\Delta] (NaPO3)_{x} + $x\,$ NH3 ^ + $x\,$ H2O}$

```
\ce{$x\,$ Na(NH4)HPO4 ->[\Delta]
  (NaPO3)_{$x$} +
  $x\,$ NH3 ^ + $x\,$ H2O}
```

Some Comments

All features mentioned above are provided by the `\cf` command. `\ce` calls `\cf` internally for all summary formulae and only sets the reaction arrows on its own. Most of the time, you do not have to worry about what command to use. Simply use `\ce` all the time. In some special cases, however, you may run into trouble. Recursion is one example (i.e. calling `\ce` from inside `\ce`). It may be helpful then, to use the `\cf` command for the inner formula.

Formulae

Reaction Arrows

$\ce{CO2 + C -> 2CO}$	`\ce{CO2 + C -> 2CO}`
$\ce{CO2 + C <- 2CO}$	`\ce{CO2 + C <- 2CO}`
$\ce{CO2 + C <=> 2CO}$	`\ce{CO2 + C <=> 2CO}`

$\ce{H+ + OH- <=>> H2O}$ `\ce{H+ + OH- <=>> H2O}`

$\ce{$A$ <-> A'}$ `\ce{$A$ <-> $A'$}`

$\ce{CO2 + C ->[\alpha] 2CO}$ `\ce{CO2 + C ->[\alpha] 2CO}`

$\ce{CO2 + C ->[\alpha][\beta] 2CO}$ `\ce{CO2 + C ->[\alpha][\beta] 2CO}`

As with ^ and _, the content above and below reaction arrows is set in math font. When you want to put descriptive text there, use the `\text` command. Or, as a shortcut, you could type a 'T' between reaction arrow and opening bracket.

$\ce{CO2 + C ->[\text{above}] 2CO}$ `\ce{CO2 + C ->[\text{above}] 2CO}`

$\ce{CO2 + C ->[\text{above}][\text{below}] 2CO}$

```
\ce{CO2 + C
  ->[\text{above}][\text{below}] 2CO}
```

$\ce{CO2 + C ->T[above][below] 2CO}$ `\ce{CO2 + C ->T[above][below] 2CO}`

Similarly, there is a shortcut for using `\ce` with reaction arrows:

$\ce{$A$ ->[\ce{+H2O}] B}$ `\ce{$A$ ->[\ce{+H2O}] $B$}`

$\ce{$A$ ->C[+H2O] B}$ `\ce{$A$ ->C[+H2O] $B$}`

Precipitate and Gas

Use `v` or `(v)` for precipitate (arrow down) and `^` or `(^)` for gas (arrow up), both separated by spaces.

$\ce{SO4^2- + Ba^2+ -> BaSO4 v}$ `\ce{SO4^2- + Ba^2+ -> BaSO4 v}`

Watch Out!

Please be aware that you sometimes have to enclose spaces in braces. In particular, you have to do so, when they appear between brackets that belong to an reaction arrow.

$\ce{$A$ <->T[{enclose spaces!}] A'}$ `\ce{$A$ <->T[{enclose spaces!}] $A'$}`

Further Examples

```
\ce{Zn^2+
  <=>[\ce{+ 2OH-}][\ce{+ 2H+}]
  $\underset{\text{amphoteres Hydroxid}}{\ce{Zn(OH)2 v}}$
  <=>C[+2OH-][{+ 2H+}]
  $\underset{\text{Hydroxozikat}}{\cf{[Zn(OH)4]^2-}}$
}
```

$\ce{Zn^2+ <=>[+2 OH-][+2 H+] Zn(OH)2v ->[+2 OH-] [Zn(OH)4]^2-}$ version≥3.05

amphoteres Hydroxid — Hydroxozikat

```
$K = \frac{[\ce{Hg^2+}][\ce{Hg}]}{[\ce{Hg2^2+}]}$
```

$K = \frac{[Hg^{2+}][Hg]}{[Hg_2^{2+}]}$

```
\ce{Hg^2+ ->[\ce{I-}]
  $\underset{\mathrm{red}}{\ce{HgI2}}$
  ->C[I-]
  $\underset{\mathrm{red}}{\ce{[Hg^{II}I4]^2-}}$
}
```

$\ce{Hg^2+ ->[I-] HgI2 ->[I-] [Hg^{II}I4]^2-}$ version≥3.05

red — red

Tips and Tricks

When you often open an equation environment and insert a formula there, you may want to create your own command. You could (in your preamble, preferably) define the following two commands:

```
\newcommand\reaction[1]{\begin{equation}\ce{#1}\end{equation}}
\newcommand\reactionnonumber[1]%
  {\begin{equation*}\ce{#1}\end{equation*}}
```

and then use them as follows:

$\ce{CO2 + C}$ (0.1)

```
\reaction{CO2 + C}
```

$\ce{CO2 + C}$

```
\reactionnonumber{CO2 + C}
```

The advanced LaTeX user could replace the two definitions with

```
\makeatletter
  \newcommand\reaction@[1]{\begin{equation}\ce{#1}\end{equation}}
  \newcommand\reaction@nonumber[1]%
    {\begin{equation*}\ce{#1}\end{equation*}}
  \newcommand\reaction{\@ifstar{\reaction@nonumber}{\reaction@}}
\makeatother
```

and then write

$\ce{CO2 + C}$ (0.2)

```
\reaction{CO2 + C}
```

$\ce{CO2 + C}$

```
\reaction*{CO2 + C}
```

for the same result as above.

So far, so good. All reactions will be labelled exactly as all the equations. A few people asked for diffent numbers for equations and reactions. One could use this code:

```
\makeatletter
\newcounter{reaction}
%%% >> for article <<
%\renewcommand\thereaction{C\,\arabic{reaction}}
%%% << for article <<
%%% >> for report and book >>
\renewcommand\thereaction{C\,\thechapter.\arabic{reaction}}
\@addtoreset{reaction}{chapter}
%%% << for report and book <<
\newcommand\reactiontag{\refstepcounter{reaction}\tag{\thereaction}}
\newcommand\reaction@[2][]{\begin{equation}\ce{#2}%
  \ifx\@empty#1\@empty\else\label{#1}\fi%
  \reactiontag\end{equation}}
\newcommand\reaction@nonumber[1]{\begin{equation*}\ce{#1}%
  \end{equation*}}
\newcommand\reaction{\@ifstar{\reaction@nonumber}{\reaction@}}
\makeatother
```

With that, all reactions are labelled independently of the equations.

$$a+b \qquad (0.3)$$

$$\mathrm{CO_2 + C} \qquad (\mathrm{C}\,0.1)$$

$$\mathrm{CO_2 + C}$$

$$\mathrm{CO_2 + C} \qquad (\mathrm{C}\,0.2)$$

$$a+b \qquad (0.4)$$

```
\begin{equat
\reaction{CO2
\reaction*{C
\reaction[rea
\begin{equat
```

Equation Environments

version≥2

When using equation environments, you can use the `\cee` command. The advantage is, that `\cee` can take the `&` and `\\` macros as input and passes them on to the surrounding environment.

$$\begin{aligned} \mathrm{RNO_2} &\overset{+e}{\rightleftharpoons} \mathrm{RNO_2^{-\cdot}} \\ \mathrm{RNO_2^{-\cdot}} &\overset{+e}{\rightleftharpoons} \mathrm{RNO_2^{2-}} \end{aligned}$$

```
\begin{align*}
  \cee{RNO2 &<=>C[+e] RNO2^{-.} \\
       RNO2^{-.} &<=>C[+e] RNO2^2-}
\end{align*}
```

Fine Tuning

In this section, several option switches will be explained. They will be explained in the form of

`\mhchemoptions{`**`option=abc`**`}`

All options can be used in the `\usepackage` command in your preamble, as well.

`\usepackage[version=3,`**`option=abc`**`]{mhchem}`

Font

As mentioned previously in this manual, mhchem uses the current text font if you use a command in text mode, and it uses the current math font when you use a command in math mode. If you want, however, you can set a font that will be used for all your formulae and equations.

Inside your document, you can use

```
\mhchemoptions{textfontcommand=\sffamily}
\mhchemoptions{mathfontcommand=\mathsf}
```

in order to get sanf-serif fonts in text and math mode. There are two further options, that basically do the same, but only take the name of a single font command without the initial backslash.

```
\mhchemoptions{textfontname=sffamily}
\mhchemoptions{mathfontname=mathsf}
```

Only the latter options can be used with the `\usepackage` command when loading mhchem (as an optional argument in brackets), because the font commands are not properly defined in the preamble yet.

Furthermore, there are two shortcuts:

```
\mhchemoptions{font=sf}
```

sets the two fonts to sans-serif, as mentioned above,

```
\mhchemoptions{font=}
```

switches back to the default, which is

```
\mhchemoptions{textfontcommand=, mathfontcommand=\mathrm}
```

Arrows

By default, mhchem uses arrows composed of different font characters. This may lead to undesirable effects when dislayed on a screen. Helmut Hänsel kindly provided a patch that used the pgf graphics package instead. pgf arrows are activated by

```
\mhchemoptions{arrows=pgf}
```

As explained, you can set this option in the `\usepackage` as well. If you don't, please do not forget to load the `tikz` package by hand in your preamble. This package is a wrapper for (and included in) the pgf bundle.

The default setting is

```
\mhchemoptions{arrows=font}
```

Here is how it looks: $A \xleftrightarrow{\text{description}} A'$

```
\mhchemoptions{arrows=font}%
\ce{$A$ <->T[description] $A'$}
```

Arrow Tips

If you do not like the standard LaTeX arrows (or the ones of your current math font, respectively), here is the option for you:

```
\mhchemoptions{arrows=pgf-filled}
```

The same considerations as for the `pgf` option apply.

$A \xleftrightarrow{\text{description}} A'$

```
\mhchemoptions{arrows=pgf-filled}
\ce{$A$ <->T[description] $A'$}
```

Major Changes

Differences between Versions 1 and 2

When you used version 1 of mhchem in an document, and you want to migrate to mhchem version 2, you might need to make some changes in your document, because of the slightly changed syntax.

In version 1, the `\ce` command always used the math font. With version 2, it adapts to its surrounding font (text font when used in a text environment, math font when used in a math environment).

H_2O, H_2O

```
\ce{H2O}, $\ce{H2O}$
```

Second, not all − characters are treated as negative charges any more. Inner − characters are now set as bonds. `\ce{X-Y-}` was typeset as X^-Y^-, but is now set as $X{-}Y^-$. You can achieve the old result by typing `\ce{X^-Y-}`.

The version 1 documentation suggested, to use additional braces in order to set a math symbol. The current way of doing that is to enclose that part with `$` signs.

Differences between Versions 2 and 3

In version 2, the `\bond` command produced a single bond. This command is now renamed to `\sbond`. Be aware that there is a new `\bond` command. Most possibly, your old formulae that used the old `\bond` command will produce an error message now, but there can be unexpected output, though.

The rsphrase Package

Usage

The rsphrase package provides two commands: `\rsnumber` and `\rsphrase`.

The text for phrase R 1 is ‘Explosive when dry.’	`The text for phrase \rsnumber{R1}\\` `is ‘\rsphrase{R1}’`

One can use the two commands with an empty argument. It is then assumed that the argument is equivalent to the one used previously.

The text for phrase R 1 is ‘Explosive when dry.’	`The text for phrase \rsnumber{R1}\\` `is ‘\rsphrase{}’`

Some S Phrases require you to insert text. This is done through an optional parameter.

S 40: To clean the floor and all objects contaminated by this material, use water.	`\rsnumber[water]{S40}:` `\rsphrase{}`

Some phrases only allow to choose between certain alternatives. In these cases, special ‘numbers’ (like S23.1) are available. Of course, the official ‘number’ (here ‘S 23’) is typeset.

S 23: Do not breathe gas.	`\rsnumber[gas]{S23}: \rsphrase{}`	S 23: Do not breat

The phrases are taken from `http://europa.eu.int/comm/environment/dansub/pdfs/annex3_en.pdf` and `http://europa.eu.int/comm/environment/dansub/pdfs/annex4_en.pdf` which in turn are linked from `http://europa.eu.int/comm/environment/dansub/main67_548/index_en.htm`.

Options

Adapted Texts

When you load the rsphrase package with the `adapted` option, the phrases will differ slightly from the official ones. In English and Danish, only in the phrase ‘show this container or label’ is changed into ‘show the container or label’. In German, however, some articles are removed or added to make the language more natural. Furthermore, one bad translation was corrected (the official translation of ‘danger of very serious irreversible effects’ was ‘serious danger of irreversible effect’).

Tips and Tricks

User-Defined Environments

In your document, you are likely to apply a certain format to your phrases. A good way to consistent layout is to define a command or environment. The following example shows how the appendix of all phrases was produced. Firstly, a list environment is defined:

```
\newenvironment{rslist}%
{%
  \begin{labeling}% environment from KOMA-script
    {\rsnumber{R39/23/24/25}}% R39/23/24/25 is longest label
}{%
  \end{labeling}%
}%
```

Then, we define an `item` command

```
\newcommand{\rs}[2][]{\item[{\rsnumber[#1]{#2}}] \rsphrase{}}
```

Finally, the phrases can be typeset with the following code

```
\begin{rslist}
  \rs{R1}
  \rs{R2}
\end{rslist}
```

The result (with small additional changes to the spacing between items) can be seen in the appendix.

Appendix

List of Implemented R and S Phrases

In case you get different phrases with the option `adapted`, these are printed in *italic*.

English

The official phrases are given in American English. These phrases are typeset when the current Babel language is either set to `english`, `USenglish`, `american`, `UKenglish` or `british`.

R 1	Explosive when dry.
R 2	Risk of explosion by shock, friction, fire or other sources of ignition.
R 3	Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R 4	Forms very sensitive explosive metallic compounds.
R 5	Heating may cause an explosion.
R 6	Explosive with or without contact with air.
R 7	May cause fire.
R 8	Contact with combustible material may cause fire.
R 9	Explosive when mixed with combustible material.
R 10	Flammable.
R 11	Highly flammable.
R 12	Extremely flammable.
R 14	Reacts violently with water.
R 15	Contact with water liberates extremely flammable gases.
R 16	Explosive when mixed with oxidizing substances.
R 17	Spontaneously flammable in air.
R 18	In use, may form flammable/explosive vapour-air mixture.
R 19	May form explosive peroxides.
R 20	Harmful by inhalation.
R 21	Harmful in contact with skin.
R 22	Harmful if swallowed.
R 23	Toxic by inhalation.
R 24	Toxic in contact with skin.

R 25	Toxic if swallowed.
R 26	Very toxic by inhalation.
R 27	Very toxic in contact with skin.
R 28	Very toxic if swallowed.
R 29	Contact with water liberates toxic gas.
R 30	Can become highly flammable in use.
R 31	Contact with acids liberates toxic gas.
R 32	Contact with acids liberates very toxic gas.
R 33	Danger of cumulative effects.
R 34	Causes burns.
R 35	Causes severe burns.
R 36	Irritating to eyes.
R 37	Irritating to respiratory system.
R 38	Irritating to skin.
R 39	Danger of very serious irreversible effects.
R 40	Limited evidence of a carcinogenic effect.
R 41	Risk of serious damage to eyes.
R 42	May cause sensitization by inhalation.
R 43	May cause sensitization by skin contact.
R 44	Risk of explosion if heated under confinement.
R 45	May cause cancer.
R 46	May cause heritable genetic damage.
R 48	Danger of serious damage to health by prolonged exposure.
R 49	May cause cancer by inhalation.
R 50	Very toxic to aquatic organisms.
R 51	Toxic to aquatic organisms.
R 52	Harmful to aquatic organisms.
R 53	May cause long-term adverse effects in the aquatic environment.
R 54	Toxic to flora.
R 55	Toxic to fauna.
R 56	Toxic to soil organisms.
R 57	Toxic to bees.
R 58	May cause long-term adverse effects in the environment.
R 59	Dangerous for the ozone layer.
R 60	May impair fertility.
R 61	May cause harm to the unborn child.
R 62	Possible risk of impaired fertility.

R 63	Possible risk of harm to the unborn child.
R 64	May cause harm to breastfed babies.
R 65	Harmful: may cause lung damage if swallowed.
R 66	Repeated exposure may cause skin dryness or cracking.
R 67	Vapours may cause drowsiness and dizziness.
R 68	Possible risk of irreversible effects.
R 14/15	Reacts violently with water, liberating extremely flammable gases.
R 15/29	Contact with water liberates toxic, extremely flammable gas.
R 20/21	Harmful by inhalation and in contact with skin.
R 20/22	Harmful by inhalation and if swallowed.
R 20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R 21/22	Harmful in contact with skin and if swallowed.
R 23/24	Toxic by inhalation and in contact with skin.
R 23/25	Toxic by inhalation and if swallowed.
R 23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R 24/25	Toxic in contact with skin and if swallowed.
R 26/27	Very toxic by inhalation and in contact with skin.
R 26/28	Very toxic by inhalation and if swallowed.
R 26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
R 27/28	Very toxic in contact with skin and if swallowed.
R 36/37	Irritating to eyes and respiratory system.
R 36/38	Irritating to eyes and skin.
R 36/37/38	Irritating to eyes, respiratory system and skin.
R 37/38	Irritating to respiratory system and skin.
R 39/23	Toxic: danger of very serious irreversible effects through inhalation.
R 39/24	Toxic: danger of very serious irreversible effects in contact with skin.
R 39/25	Toxic: danger of very serious irreversible effects if swallowed.
R 39/23/24	Toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
R 39/23/25	Toxic: danger of very serious irreversible effects through inhalation and if swallowed.
R 39/24/25	Toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
R 39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R 39/26	Very toxic: danger of very serious irreversible effects through inhalation.
R 39/27	Very toxic: danger of very serious irreversible effects in contact with skin.
R 39/28	Very toxic: danger of very serious irreversible effects if swallowed.

R 39/26/27	Very toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
R 39/26/28	Very toxic: danger of very serious irreversible effects through inhalation and if swallowed.
R 39/27/28	Very toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
R 39/26/27/28	Very toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R 42/43	May cause sensitization by inhalation and skin contact.
R 48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R 48/21	Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
R 48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R 48/20/21	Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
R 48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R 48/21/22	Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
R 48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R 48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R 48/24	Toxic: danger of serious damage to health by prolonged exposure in contact with skin.
R 48/25	Toxic: danger of serious damage to health by prolonged exposure if swallowed.
R 48/23/24	Toxic: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
R 48/23/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R 48/24/25	Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
R 48/23/24/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R 50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 68/20	Harmful: possible risk of irreversible effects through inhalation.
R 68/21	Harmful: possible risk of irreversible effects in contact with skin.
R 68/22	Harmful: possible risk of irreversible effects if swallowed.
R 68/20/21	Harmful: possible risk of irreversible effects through inhalation and in contact with skin.
R 68/20/22	Harmful: possible risk of irreversible effects through inhalation and if swallowed.
R 68/21/22	Harmful: possible risk of irreversible effects in contact with skin and if swallowed.
R 68/20/21/22	Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
S 1	Keep locked up.
S 2	Keep out of the reach of children.
S 3	Keep in a cool place.
S 4	Keep away from living quarters.
S 5	Keep contents under ....
S 6	Keep under ....
S 7	Keep container tightly closed.
S 8	Keep container dry.
S 9	Keep container in a well-ventilated place.
S 12	Do not keep the container sealed.
S 13	Keep away from food, drink and animal feedingstuffs.
S 14	Keep away from ....
S 15	Keep away from heat.
S 16	Keep away from sources of ignition - No smoking.
S 17	Keep away from combustible material.
S 18	Handle and open container with care.
S 20	When using do not eat or drink.
S 21	When using do not smoke.
S 22	Do not breathe dust.
S 23	Do not breathe ....
S 23.0	Do not breathe gas / fumes / vapour / spray.
S 23.1	Do not breathe gas.
S 23.2	Do not breathe fumes.
S 23.3	Do not breathe vapour.
S 23.4	Do not breathe spray.

S 24	Avoid contact with skin.
S 25	Avoid contact with eyes.
S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 27	Take off immediately all contaminated clothing.
S 28	After contact with skin, wash immediately with plenty of ....
S 29	Do not empty into drains.
S 30	Never add water to this product.
S 33	Take precautionary measures against static discharges.
S 35	This material and its container must be disposed of in a safe way.
S 36	Wear suitable protective clothing.
S 37	Wear suitable gloves.
S 38	In case of insufficient ventilation, wear suitable respiratory equipment.
S 39	Wear eye / face protection.
S 40	To clean the floor and all objects contaminated by this material, use ....
S 41	In case of fire and / or explosion do not breathe fumes.
S 42	During fumigation / spraying wear suitable respiratory equipment.
S 43.0	In case of fire, use ....
S 43.1	In case of fire, use .... Never use water.
S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 46	If swallowed, seek medical advice immediately and show this container or label. *If swallowed, seek medical advice immediately and show the container or label.*
S 47	Keep at temperature not exceeding ... °C.
S 48	Keep wet with ....
S 49	Keep only in the original container.
S 50	Do not mix with ....
S 51	Use only in well-ventilated areas.
S 52	Not recommended for interior use on large surface areas.
S 53	Avoid exposure – obtain special instructions before use.
S 56	Dispose of this material and its container to hazardous or special waste collection point.
S 57	Use appropriate container to avoid environmental contamination.
S 59	Refer to manufacturer / supplier for information on recovery / recycling.
S 60	This material and its container must be disposed of as hazardous waste.
S 61	Avoid release to the environment. Refer to special instructions / Safety data sheets.

S 62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. *If swallowed, do not induce vomiting: seek medical advice immediately and show the container or label.*
S 63	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
S 64	If swallowed, rinse mouth with water (only if the person is conscious).
S 1/2	Keep locked up and out of the reach of children.
S 3/7	Keep container tightly closed in a cool place.
S 3/9/14	Keep in a cool, well-ventilated place away from ....
S 3/9/14/49	Keep only in the original container in a cool, well-ventilated place away from ....
S 3/9/49	Keep only in the original container in a cool, well-ventilated place.
S 3/14	Keep in a cool place away from ....
S 7/8	Keep container tightly closed and dry.
S 7/9	Keep container tightly closed and in a well-ventilated place.
S 7/47	Keep container tightly closed and at a temperature not exceeding ... °C.
S 20/21	When using do not eat, drink or smoke.
S 24/25	Avoid contact with skin and eyes.
S 27/28	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of ....
S 29/35	Do not empty into drains; dispose of this material and its container in a safe way.
S 29/56	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
S 36/37	Wear suitable protective clothing and gloves.
S 36/37/39	Wear suitable protective clothing, gloves and eye / face protection.
S 36/39	Wear suitable protective clothing and eye / face protection.
S 37/39	Wear suitable gloves and eye / face protection.
S 47/49	Keep only in the original container at a temperature not exceeding ... °C.

Danish

Thanks to the extensive help of Rasmus Villemoes, the Danish phrases could be included. There were a couple typos in the official documents: We changed ‘bebølse’ to ‘beboelse’, ‘omgåænde’ to ‘omgående’ and ‘producentesn’ to ‘producenten’.

R 1	Explosive when dry.
R 2	Risk of explosion by shock, friction, fire or other sources of ignition.
R 3	Extreme risk of explosion by shock, friction, fire or other sources of ignition.

R 4	Forms very sensitive explosive metallic compounds.
R 5	Heating may cause an explosion.
R 6	Explosive with or without contact with air.
R 7	May cause fire.
R 8	Contact with combustible material may cause fire.
R 9	Explosive when mixed with combustible material.
R 10	Flammable.
R 11	Highly flammable.
R 12	Extremely flammable.
R 14	Reacts violently with water.
R 15	Contact with water liberates extremely flammable gases.
R 16	Explosive when mixed with oxidizing substances.
R 17	Spontaneously flammable in air.
R 18	In use, may form flammable/explosive vapour-air mixture.
R 19	May form explosive peroxides.
R 20	Harmful by inhalation.
R 21	Harmful in contact with skin.
R 22	Harmful if swallowed.
R 23	Toxic by inhalation.
R 24	Toxic in contact with skin.
R 25	Toxic if swallowed.
R 26	Very toxic by inhalation.
R 27	Very toxic in contact with skin.
R 28	Very toxic if swallowed.
R 29	Contact with water liberates toxic gas.
R 30	Can become highly flammable in use.
R 31	Contact with acids liberates toxic gas.
R 32	Contact with acids liberates very toxic gas.
R 33	Danger of cumulative effects.
R 34	Causes burns.
R 35	Causes severe burns.
R 36	Irritating to eyes.
R 37	Irritating to respiratory system.
R 38	Irritating to skin.
R 39	Danger of very serious irreversible effects.
R 40	Limited evidence of a carcinogenic effect.
R 41	Risk of serious damage to eyes.

R 42	May cause sensitization by inhalation.
R 43	May cause sensitization by skin contact.
R 44	Risk of explosion if heated under confinement.
R 45	May cause cancer.
R 46	May cause heritable genetic damage.
R 48	Danger of serious damage to health by prolonged exposure.
R 49	May cause cancer by inhalation.
R 50	Very toxic to aquatic organisms.
R 51	Toxic to aquatic organisms.
R 52	Harmful to aquatic organisms.
R 53	May cause long-term adverse effects in the aquatic environment.
R 54	Toxic to flora.
R 55	Toxic to fauna.
R 56	Toxic to soil organisms.
R 57	Toxic to bees.
R 58	May cause long-term adverse effects in the environment.
R 59	Dangerous for the ozone layer.
R 60	May impair fertility.
R 61	May cause harm to the unborn child.
R 62	Possible risk of impaired fertility.
R 63	Possible risk of harm to the unborn child.
R 64	May cause harm to breastfed babies.
R 65	Harmful: may cause lung damage if swallowed.
R 66	Repeated exposure may cause skin dryness or cracking.
R 67	Vapours may cause drowsiness and dizziness.
R 68	Possible risk of irreversible effects.
R 14/15	Reacts violently with water, liberating extremely flammable gases.
R 15/29	Contact with water liberates toxic, extremely flammable gas.
R 20/21	Harmful by inhalation and in contact with skin.
R 20/22	Harmful by inhalation and if swallowed.
R 20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R 21/22	Harmful in contact with skin and if swallowed.
R 23/24	Toxic by inhalation and in contact with skin.
R 23/25	Toxic by inhalation and if swallowed.
R 23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R 24/25	Toxic in contact with skin and if swallowed.
R 26/27	Very toxic by inhalation and in contact with skin.

R 26/28	Very toxic by inhalation and if swallowed.
R 26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
R 27/28	Very toxic in contact with skin and if swallowed.
R 36/37	Irritating to eyes and respiratory system.
R 36/38	Irritating to eyes and skin.
R 36/37/38	Irritating to eyes, respiratory system and skin.
R 37/38	Irritating to respiratory system and skin.
R 39/23	Toxic: danger of very serious irreversible effects through inhalation.
R 39/24	Toxic: danger of very serious irreversible effects in contact with skin.
R 39/25	Toxic: danger of very serious irreversible effects if swallowed.
R 39/23/24	Toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
R 39/23/25	Toxic: danger of very serious irreversible effects through inhalation and if swallowed.
R 39/24/25	Toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
R 39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R 39/26	Very toxic: danger of very serious irreversible effects through inhalation.
R 39/27	Very toxic: danger of very serious irreversible effects in contact with skin.
R 39/28	Very toxic: danger of very serious irreversible effects if swallowed.
R 39/26/27	Very toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
R 39/26/28	Very toxic: danger of very serious irreversible effects through inhalation and if swallowed.
R 39/27/28	Very toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
R 39/26/27/28	Very toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R 42/43	May cause sensitization by inhalation and skin contact.
R 48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R 48/21	Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
R 48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R 48/20/21	Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
R 48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R 48/21/22	Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
R 48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R 48/23	Toxic: danger of serious damage to health by prolonged exposure through inhalation.
R 48/24	Toxic: danger of serious damage to health by prolonged exposure in contact with skin.
R 48/25	Toxic: danger of serious damage to health by prolonged exposure if swallowed.
R 48/23/24	Toxic: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
R 48/23/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R 48/24/25	Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
R 48/23/24/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R 50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R 68/20	Harmful: possible risk of irreversible effects through inhalation.
R 68/21	Harmful: possible risk of irreversible effects in contact with skin.
R 68/22	Harmful: possible risk of irreversible effects if swallowed.
R 68/20/21	Harmful: possible risk of irreversible effects through inhalation and in contact with skin.
R 68/20/22	Harmful: possible risk of irreversible effects through inhalation and if swallowed.
R 68/21/22	Harmful: possible risk of irreversible effects in contact with skin and if swallowed.
R 68/20/21/22	Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

S 1	Keep locked up.
S 2	Keep out of the reach of children.
S 3	Keep in a cool place.
S 4	Keep away from living quarters.
S 5	Keep contents under ....
S 6	Keep under ....

S 7	Keep container tightly closed.
S 8	Keep container dry.
S 9	Keep container in a well-ventilated place.
S 12	Do not keep the container sealed.
S 13	Keep away from food, drink and animal feedingstuffs.
S 14	Keep away from ....
S 15	Keep away from heat.
S 16	Keep away from sources of ignition - No smoking.
S 17	Keep away from combustible material.
S 18	Handle and open container with care.
S 20	When using do not eat or drink.
S 21	When using do not smoke.
S 22	Do not breathe dust.
S 23	Do not breathe ....
S 24	Avoid contact with skin.
S 25	Avoid contact with eyes.
S 26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 27	Take off immediately all contaminated clothing.
S 28	After contact with skin, wash immediately with plenty of ....
S 29	Do not empty into drains.
S 30	Never add water to this product.
S 33	Take precautionary measures against static discharges.
S 35	This material and its container must be disposed of in a safe way.
S 36	Wear suitable protective clothing.
S 37	Wear suitable gloves.
S 38	In case of insufficient ventilation, wear suitable respiratory equipment.
S 39	Wear eye / face protection.
S 40	To clean the floor and all objects contaminated by this material, use ....
S 41	In case of fire and / or explosion do not breathe fumes.
S 42	During fumigation / spraying wear suitable respiratory equipment.
S 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 46	If swallowed, seek medical advice immediately and show this container or label. *If swallowed, seek medical advice immediately and show the container or label.*
S 47	Keep at temperature not exceeding ... °C.
S 48	Keep wet with ....

S 49	Keep only in the original container.
S 50	Do not mix with . . . .
S 51	Use only in well-ventilated areas.
S 52	Not recommended for interior use on large surface areas.
S 53	Avoid exposure – obtain special instructions before use.
S 56	Dispose of this material and its container to hazardous or special waste collection point.
S 57	Use appropriate container to avoid environmental contamination.
S 59	Refer to manufacturer / supplier for information on recovery / recycling.
S 60	This material and its container must be disposed of as hazardous waste.
S 61	Avoid release to the environment. Refer to special instructions / Safety data sheets.
S 62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. *If swallowed, do not induce vomiting: seek medical advice immediately and show the container or label.*
S 63	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
S 64	If swallowed, rinse mouth with water (only if the person is conscious).
S 1/2	Keep locked up and out of the reach of children.
S 3/7	Keep container tightly closed in a cool place.
S 3/9/14	Keep in a cool, well-ventilated place away from . . . .
S 3/9/14/49	Keep only in the original container in a cool, well-ventilated place away from . . . .
S 3/9/49	Keep only in the original container in a cool, well-ventilated place.
S 3/14	Keep in a cool place away from . . . .
S 7/8	Keep container tightly closed and dry.
S 7/9	Keep container tightly closed and in a well-ventilated place.
S 7/47	Keep container tightly closed and at a temperature not exceeding . . . °C.
S 20/21	When using do not eat, drink or smoke.
S 24/25	Avoid contact with skin and eyes.
S 27/28	After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of . . . .
S 29/35	Do not empty into drains; dispose of this material and its container in a safe way.
S 29/56	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
S 36/37	Wear suitable protective clothing and gloves.
S 36/37/39	Wear suitable protective clothing, gloves and eye / face protection.
S 36/39	Wear suitable protective clothing and eye / face protection.

S 37/39	Wear suitable gloves and eye / face protection.
S 47/49	Keep only in the original container at a temperature not exceeding … °C.

French

Dominique Richard helped with the French phrases. Many thanks to him!

R 1	Explosif à l'état sec.
R 2	Risque d'explosion par le choc, la friction, le feu ou d'autres sources d'ignition.
R 3	Grand risque d'explosion par le choc, la friction, le feu ou d'autres sources d'ignition.
R 4	Forme des composés métalliques explosifs très sensibles.
R 5	Danger d'explosion sous l'action de la chaleur.
R 6	Danger d'explosion en contact ou sans contact avec l'air.
R 7	Peut provoquer un incendie.
R 8	Favorise l'inflammation des matières combustibles.
R 9	Peut exploser en mélange avec des matières combustibles.
R 10	Inflammable.
R 11	Facilement inflammable.
R 12	Extrêmement inflammable.
R 14	Réagit violemment au contact de l'eau.
R 15	Au contact de l'eau, dégage des gaz extrêmement inflammables.
R 16	Peut exploser en mélange avec des substances comburantes.
R 17	Spontanément inflammable à l'air.
R 18	Lors de l'utilisation, formation possible de mélange vapeur-air inflammable / explosif.
R 19	Peut former des peroxydes explosifs.
R 20	Nocif par inhalation.
R 21	Nocif par contact avec la peau.
R 22	Nocif en cas d'ingestion.
R 23	Toxique par inhalation.
R 24	Toxique par contact avec la peau.
R 25	Toxique en cas d'ingestion.
R 26	Très toxique par inhalation.
R 27	Très toxique par contact avec la peau.
R 28	Très toxique en cas d'ingestion.
R 29	Au contact de l'eau, dégage des gaz toxiques.
R 30	Peut devenir facilement inflammable pendant l'utilisation.

R 31	Au contact d'un acide, dégage un gaz toxique.
R 32	Au contact d'un acide, dégage un gaz très toxique.
R 33	Danger d'effets cumulatifs.
R 34	Provoque des brûlures.
R 35	Provoque de graves brûlures.
R 36	Irritant pour les yeux.
R 37	Irritant pour les voies respiratoires.
R 38	Irritant pour la peau.
R 39	Danger d'effets irréversibles très graves.
R 40	Effet cancérogène suspecté preuves insuffisantes.
R 41	Risque de lésions oculaires graves.
R 42	Peut entraîner une sensibilisation par inhalation.
R 43	Peut entraîner une sensibilisation par contact avec la peau.
R 44	Risque d'explosion si chauffé en ambiance confinée.
R 45	Peut provoquer le cancer.
R 46	Peut provoquer des altérations génétiques héréditaires.
R 48	Risque d'effets graves pour la santé en cas d'exposition prolongée.
R 49	Peut provoquer le cancer par inhalation.
R 50	Très toxique pour les organismes aquatiques.
R 51	Toxique pour les organismes aquatiques.
R 52	Nocif pour les organismes aquatiques.
R 53	Peut entraîner des effets néfastes à long terme pour l'environnement aquatique.
R 54	Toxique pour la flore.
R 55	Toxique pour la faune.
R 56	Toxique pour les organismes du sol.
R 57	Toxique pour les abeilles.
R 58	Peut entraîner des effets néfastes à long terme pour l'environnement.
R 59	Dangereux pour la couche d'ozone.
R 60	Peut altérer la fertilité.
R 61	Risque pendant la grossesse d'effets néfastes pour l'enfant.
R 62	Risque possible d'altération de la fertilité.
R 63	Risque possible pendant la grossesse d'effets néfastes pour l'enfant.
R 64	Risque possible pour les bébés nourris au lait maternel.
R 65	Nocif: peut provoquer une atteinte des poumons en cas d'ingestion.
R 66	L'exposition répétée peut provoquer dessèchement ou gerçures de la peau.
R 67	L'inhalation de vapeurs peut provoquer somnolence et vertiges.
R 68	Possibilité d'effets irréversibles.

R 14/15	Réagit violemment au contact de l'eau en dégageant des gaz extrêmement inflammables.
R 15/29	Au contact de l'eau, dégage des gaz toxiques et extrêmement inflammables.
R 20/21	Nocif par inhalation et par contact avec la peau.
R 20/22	Nocif par inhalation et par ingestion.
R 20/21/22	Nocif par inhalation, par contact avec la peau et par ingestion.
R 21/22	Nocif par contact avec la peau et par ingestion.
R 23/24	Toxique par inhalation et par contact avec la peau.
R 23/25	Toxique par inhalation et par ingestion.
R 23/24/25	Toxique par inhalation, par contact avec la peau et par ingestion.
R 24/25	Toxique par contact avec la peau et par ingestion.
R 26/27	Très toxique par inhalation et par contact avec la peau.
R 26/28	Très toxique par inhalation et par ingestion.
R 26/27/28	Très toxique par inhalation, par contact avec la peau et par ingestion.
R 27/28	Très toxique par contact avec la peau et par ingestion.
R 36/37	Irritant pour les yeux et les voies respiratoires.
R 36/38	Irritant pour les yeux et la peau.
R 36/37/38	Irritant pour les yeux, les voies respiratoires et la peau.
R 37/38	Irritant pour les voies respiratoires et la peau.
R 39/23	Toxique: danger d'effets irréversibles très graves par inhalation.
R 39/24	Toxique: danger d'effets irréversibles très graves par contact avec la peau.
R 39/25	Toxique: danger d'effets irréversibles très graves par ingestion.
R 39/23/24	Toxique: danger d'effets irréversibles très graves par inhalation et par contact avec la peau.
R 39/23/25	Toxique: danger d'effets irréversibles très graves par inhalation et par ingestion.
R 39/24/25	Toxique: danger d'effets irréversibles très graves par contact avec la peau et par ingestion.
R 39/23/24/25	Toxique: danger d'effets irréversibles très graves par inhalation, par contact avec la peau et par ingestion.
R 39/26	Très toxique: danger d'effets irréversibles très graves par inhalation.
R 39/27	Très toxique: danger d'effets irréversibles très graves par contact avec la peau.
R 39/28	Très toxique: danger d'effets irréversibles très graves par ingestion.
R 39/26/27	Très toxique: danger d'effets irréversibles très graves par inhalation et par contact avec la peau.
R 39/26/28	Très toxique: danger d'effets irréversibles très graves par inhalation et par ingestion.
R 39/27/28	Très toxique: danger d'effets irréversibles très graves par contact avec la peau et par ingestion.

R 39/26/27/28	Très toxique: danger d'effets irréversibles très graves par inhalation, par contact avec la peau et par ingestion.
R 42/43	Peut entraîner une sensibilisation par inhalation et par contact avec la peau.
R 48/20	Nocif: risque d'effets graves pour la santé en cas d'exposition prolongée par inhalation.
R 48/21	Nocif: risque d'effets graves pour la santé en cas d'exposition prolongée par contact avec la peau.
R 48/22	Nocif: risque d'effets graves pour la santé en cas d'exposition prolongée par ingestion.
R 48/20/21	Nocif: risque d'effets graves pour la santé en cas d'exposition prolongée par inhalation et par contact avec la peau.
R 48/20/22	Nocif: risque d'effets graves pour la santé en cas d'exposition prolongée par inhalation et par ingestion.
R 48/21/22	Nocif: risque d'effets graves pour la santé en cas d'exposition prolongée par contact avec la peau et par ingestion.
R 48/20/21/22	Nocif: risque d'effets graves pour la santé en cas d'exposition prolongée par inhalation, par contact avec la peau et par ingestion.
R 48/23	Toxique: risque d'effets graves pour la santé en cas d'exposition prolongée par inhalation.
R 48/24	Toxique: risque d'effets graves pour la santé en cas d'exposition prolongée par contact avec la peau.
R 48/25	Toxique: risque d'effets graves pour la santé en cas d'exposition prolongée par ingestion.
R 48/23/24	Toxique: risque d'effets graves pour la santé en cas d'exposition prolongée par inhalation et par contact avec la peau.
R 48/23/25	Toxique: risque d'effets graves pour la santé en cas d'exposition prolongée par inhalation et par ingestion.
R 48/24/25	Toxique: risque d'effets graves pour la santé en cas d'exposition prolongée par contact avec la peau et par ingestion.
R 48/23/24/25	Toxique: risque d'effets graves pour la santé en cas d'exposition prolongée par inhalation, par contact avec la peau et par ingestion.
R 50/53	Très toxique pour les organismes aquatiques, peut entraîner des effets néfastes à long terme pour l'environnement aquatique.
R 51/53	Toxique pour les organismes aquatiques, peut entraîner des effets néfastes à long terme pour l'environnement aquatique.
R 52/53	Nocif pour les organismes aquatiques, peut entraîner des effets néfastes à long terme pour l'environnement aquatique.
R 68/20	Nocif: possibilité d'effets irréversibles par inhalation.
R 68/21	Nocif: possibilité d'effets irréversibles par contact avec la peau.
R 68/22	Nocif: possibilité d'effets irréversibles par ingestion.

R 68/20/21	Nocif: possibilité d'effets irréversibles par inhalation et par contact avec la peau.
R 68/20/22	Nocif: possibilité d'effets irréversibles par inhalation et par ingestion.
R 68/21/22	Nocif: possibilité d'effets irréversibles par contact avec la peau et par ingestion.
R 68/20/21/22	Nocif: possibilité d'effets irréversibles par inhalation, par contact avec la peau et par ingestion.
S 1	Conserver sous clé.
S 2	Conserver hors de la portée des enfants.
S 3	Conserver dans un endroit frais.
S 4	Conserver à l'écart de tout local d'habitation.
S 5	Conserver sous ....
S 6	Conserver sous ....
S 7	Conserver le récipient bien fermé.
S 8	Conserver le récipient à l'abri de l'humidité.
S 9	Conserver le récipient dans un endroit bien ventilé.
S 12	Ne pas fermer hermétiquement le récipient.
S 13	Conserver à l'écart des aliments et boissons, y compris ceux pour animaux.
S 14	Conserver à l'écart des ....
S 15	Conserver à l'écart de la chaleur.
S 16	Conserver à l'écart de toute flamme ou source d'étincelles - Ne pas fumer.
S 17	Tenir à l'écart des matières combustibles.
S 18	Manipuler et ouvrir le récipient avec prudence.
S 20	Ne pas manger et ne pas boire pendant l'utilisation.
S 21	Ne pas fumer pendant l'utilisation.
S 22	Ne pas respirer les poussières.
S 23	Ne pas respirer les ....
S 23.0	Ne pas respirer les gaz / fumees / vapeurs / aerosols.
S 23.1	Ne pas respirer les gaz.
S 23.2	Ne pas respirer les fumees.
S 23.3	Ne pas respirer les vapeurs.
S 23.4	Ne pas respirer les aerosols.
S 24	Éviter le contact avec la peau.
S 25	Éviter le contact avec les yeux.
S 26	En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste.
S 27	Enlever immédiatement tout vêtement souillé ou éclaboussé.
S 28	Après contact avec la peau, se laver immédiatement et abondamment avec ....

S 29	Ne pas jeter les résidus à l'égout.
S 30	Ne jamais verser de l'eau dans ce produit.
S 33	Éviter l'accumulation de charges électrostatiques.
S 35	Ne se débarrasser de ce produit et de son récipient qu'en prenant toutes précautions d'usage.
S 36	Porter un vêtement de protection approprié.
S 37	Porter des gants appropriés.
S 38	En cas de ventilation insuffisante, porter un appareil respiratoire approprié.
S 39	Porter un appareil de protection des yeux / du visage.
S 40	Pour nettoyer le sol ou les objets souillés par ce produit, utiliser ....
S 41	En cas d'incendie et / ou d'explosion, ne pas respirer les fumées.
S 42	Pendant les fumigations / pulvérisations, porter un appareil respiratoire approprié.
S 43.0	En cas d'incendie, utiliser ....
S 43.1	En cas d'incendie, utiliser .... Ne jamais utiliser d'eau.
S 45	En cas d'accident ou de malaise, consulter immédiatement un médecin (si possible lui montrer l'étiquette).
S 46	En cas d'ingestion, consulter immédiatement un médecin et lui montrer l'emballage ou l'étiquette.
S 47	Conserver à une température ne dépassant pas ... °C.
S 48	Maintenir humide avec ....
S 49	Conserver uniquement dans le récipient d'origine.
S 50	Ne pas mélanger avec ....
S 51	Utiliser seulement dans des zones bien ventilées.
S 52	Ne pas utiliser sur de grandes surfaces dans les locaux habités.
S 53	Éviter l'exposition - se procurer des instructions spéciales avant l'utilisation.
S 56	Éliminer ce produit et son récipient dans un centre de collecte des déchets dangereux ou spéciaux.
S 57	Utiliser un récipient approprié pour éviter toute contamination du milieu ambiant.
S 59	Consulter le fabricant / fournisseur pour des informations relatives à la récupération / au recyclage.
S 60	Éliminer le produit et son récipient comme un déchet dangereux.
S 61	Éviter le rejet dans l'environnement Consulter les instructions spéciales / la fiche de données de sécurité.
S 62	En cas d'ingestion, ne pas faire vomir Consulter immédiatement un médecin et lui montrer l'emballage ou l'étiquette.
S 63	En cas d'accident par inhalation, transporter la victime hors de la zone contaminée et la garder au repos.

S 64	En cas d'ingestion, rincer la bouche avec de l'eau (seulement si la personne est consciente).
S 1/2	Conserver sous clef et hors de portée des enfants.
S 3/7	Conserver le récipient bien fermé dans un endroit frais.
S 3/9/14	Conserver dans un endroit frais et bien ventilé à l'écart des ....
S 3/9/14/49	Conserver uniquement dans le récipient d'origine dans un endroit frais et bien ventilé à l'écart de ....
S 3/9/49	Conserver uniquement dans le récipient d'origine dans un endroit frais et bien ventilé.
S 3/14	Conserver dans un endroit frais à l'écart des ....
S 7/8	Conserver le récipient bien fermé et à l'abri de l'humidité.
S 7/9	Conserver le récipient bien fermé et dans un endroit bien ventilé.
S 7/47	Conserver le récipient bien fermé et à une température ne dépassant pas ... °C.
S 20/21	Ne pas manger, ne pas boire et ne pas fumer pendant l'utilisation.
S 24/25	Éviter le contact avec la peau et les yeux.
S 27/28	Après contact avec la peau, enlever immédiatement tout vêtement souillé ou éclaboussé et se laver immédiatement et abondamment avec ....
S 29/35	Ne pas jeter les résidus à l'égout; ne se débarrasser de ce produit et de son récipient qu'en prenant toutes les précautions d'usage.
S 29/56	Ne pas jeter les résidus à l'égout, éliminer ce produit et son récipient dans un centre de collecte des déchets dangereux ou spéciaux.
S 36/37	Porter un vêtement de protection et des gants appropriés.
S 36/37/39	Porter un vêtement de protection approprié, des gants et un appareil de protection des yeux / du visage.
S 36/39	Porter un vêtement de protection approprié et un appareil de protection des yeux / du visage.
S 37/39	Porter des gants appropriés et un appareil de protection des yeux / du visage.
S 47/49	Conserver uniquement dans le récipient d'origine à une température ne dépassant pas ... °C.

German

I adapted the German R and S Phrases to the current ('new') spelling. Therefore, when writing a text in `german` and using rsphrase, you will get a warning ('Your current language setting is german, rsphrase only knows the current German spelling (ngerman) which therefore was used.').

R 1	In trockenem Zustand explosionsgefährlich.
R 2	Durch Schlag, Reibung, Feuer oder andere Zündquellen explosionsgefährlich.
R 3	Durch Schlag, Reibung, Feuer oder andere Zündquellen besonders explosionsgefährlich.

R 4	Bildet hochempfindliche explosionsgefährliche Metallverbindungen.
R 5	Beim Erwärmen explosionsfähig.
R 6	Mit und ohne Luft explosionsfähig.
R 7	Kann Brand verursachen.
R 8	Feuergefahr bei Berührung mit brennbaren Stoffen.
R 9	Explosionsgefahr bei Mischung mit brennbaren Stoffen.
R 10	Entzündlich.
R 11	Leicht entzündlich.
R 12	Hoch entzündlich.
R 14	Reagiert heftig mit Wasser.
R 15	Reagiert mit Wasser unter Bildung hoch entzündlicher Gase.
R 16	Explosionsgefährlich in Mischung mit Brand fördernden Stoffen.
R 17	Selbstentzündlich an der Luft.
R 18	Bei Gebrauch Bildung explosionsfähiger / leicht entzündlicher Dampf/Luft-Gemische möglich.
R 19	Kann explosionsfähige Peroxide bilden.
R 20	Gesundheitsschädlich beim Einatmen.
R 21	Gesundheitsschädlich bei Berührung mit der Haut.
R 22	Gesundheitsschädlich beim Verschlucken.
R 23	Giftig beim Einatmen.
R 24	Giftig bei Berührung mit der Haut.
R 25	Giftig beim Verschlucken.
R 26	Sehr giftig beim Einatmen.
R 27	Sehr giftig bei Berührung mit der Haut.
R 28	Sehr giftig beim Verschlucken.
R 29	Entwickelt bei Berührung mit Wasser giftige Gase.
R 30	Kann bei Gebrauch leicht entzündlich werden.
R 31	Entwickelt bei Berührung mit Säure giftige Gase.
R 32	Entwickelt bei Berührung mit Säure sehr giftige Gase.
R 33	Gefahr kumulativer Wirkungen.
R 34	Verursacht Verätzungen.
R 35	Verursacht schwere Verätzungen.
R 36	Reizt die Augen.
R 37	Reizt die Atmungsorgane.
R 38	Reizt die Haut.
R 39	Ernste Gefahr irreversiblen Schadens.

	Gefahr sehr ernster irreversibler Schäden. [1]
R 40	Verdacht auf Krebs erzeugende Wirkung.
R 41	Gefahr ernster Augenschäden.
R 42	Sensibilisierung durch Einatmen möglich.
R 43	Sensibilisierung durch Hautkontakt möglich.
R 44	Explosionsgefahr bei Erhitzen unter Einschluss.
R 45	Kann Krebs erzeugen.
R 46	Kann vererbbare Schäden verursachen.
R 48	Gefahr ernster Gesundheitsschäden bei längerer Exposition.
R 49	Kann Krebs erzeugen beim Einatmen.
R 50	Sehr giftig für Wasserorganismen.
R 51	Giftig für Wasserorganismen.
R 52	Schädlich für Wasserorganismen.
R 53	Kann in Gewässern längerfristig schädliche Wirkungen haben.
R 54	Giftig für Pflanzen.
R 55	Giftig für Tiere.
R 56	Giftig für Bodenorganismen.
R 57	Giftig für Bienen.
R 58	Kann längerfristig schädliche Wirkungen auf die Umwelt haben.
R 59	Gefährlich für die Ozonschicht.
R 60	Kann die Fortpflanzungsfähigkeit beeinträchtigen.
R 61	Kann das Kind im Mutterleib schädigen.
R 62	Kann möglicherweise die Fortpflanzungsfähigkeit beeinträchtigen.
R 63	Kann das Kind im Mutterleib möglicherweise schädigen.
R 64	Kann Säuglinge über die Muttermilch schädigen.
R 65	Gesundheitsschädlich: kann beim Verschlucken Lungenschäden verursachen.
R 66	Wiederholter Kontakt kann zu spröder oder rissiger Haut führen.
R 67	Dämpfe können Schläfrigkeit und Benommenheit verursachen.
R 68	Irreversibler Schaden möglich.
R 14/15	Reagiert heftig mit Wasser unter Bildung hoch entzündlicher Gase.
R 15/29	Reagiert mit Wasser unter Bildung giftiger und hoch entzündlicher Gase.
R 20/21	Gesundheitsschädlich beim Einatmen und bei Berührung mit der Haut.
R 20/22	Gesundheitsschädlich beim Einatmen und Verschlucken.
R 20/21/22	Gesundheitsschädlich beim Einatmen, Verschlucken und Berührung mit der Haut.
	Gesundheitsschädlich beim Einatmen, Verschlucken und bei Berührung mit der Haut.

[1] Geändert, da schlechte Übersetzung; siehe englisches Original.

R 21/22	Gesundheitsschädlich bei Berührung mit der Haut und beim Verschlucken.
R 23/24	Giftig beim Einatmen und bei Berührung mit der Haut.
R 23/25	Giftig beim Einatmen und Verschlucken.
R 23/24/25	Giftig beim Einatmen, Verschlucken und Berührung mit der Haut. *Giftig beim Einatmen, Verschlucken und bei Berührung mit der Haut.*
R 24/25	Giftig bei Berührung mit der Haut und beim Verschlucken.
R 26/27	Sehr giftig beim Einatmen und bei Berührung mit der Haut.
R 26/28	Sehr giftig beim Einatmen und Verschlucken.
R 26/27/28	Sehr giftig beim Einatmen, Verschlucken und Berührung mit der Haut. *Sehr giftig beim Einatmen, Verschlucken und bei Berührung mit der Haut.*
R 27/28	Sehr giftig bei Berührung mit der Haut und beim Verschlucken.
R 36/37	Reizt die Augen und die Atmungsorgane.
R 36/38	Reizt die Augen und die Haut.
R 36/37/38	Reizt die Augen, Atmungsorgane und die Haut. *Reizt Augen, Atmungsorgane und Haut.*
R 37/38	Reizt die Atmungsorgane und die Haut.
R 39/23	Giftig: ernste Gefahr irreversiblen Schadens durch Einatmen. *Giftig: Gefahr sehr ernster irreversibler Schäden durch Einatmen.*
R 39/24	Giftig: ernste Gefahr irreversiblen Schadens bei Berührung mit der Haut. *Giftig: Gefahr sehr ernster irreversibler Schäden bei Berührung mit der Haut.*
R 39/25	Giftig: ernste Gefahr irreversiblen Schadens durch Verschlucken. *Giftig: Gefahr sehr ernster irreversibler Schäden durch Verschlucken.*
R 39/23/24	Giftig: ernste Gefahr irreversiblen Schadens durch Einatmen und bei Berührung mit der Haut. *Giftig: Gefahr sehr ernster irreversibler Schäden durch Einatmen und bei Berührung mit der Haut.*
R 39/23/25	Giftig: ernste Gefahr irreversiblen Schadens durch Einatmen und durch Verschlucken. *Giftig: Gefahr sehr ernster irreversibler Schäden durch Einatmen und durch Verschlucken.*
R 39/24/25	Giftig: ernste Gefahr irreversiblen Schadens bei Berührung mit der Haut und durch Verschlucken. *Giftig: Gefahr sehr ernster irreversibler Schäden bei Berührung mit der Haut und durch Verschlucken.*
R 39/23/24/25	Giftig: ernste Gefahr irreversiblen Schadens durch Einatmen, Berührung mit der Haut und durch Verschlucken. *Giftig: Gefahr sehr ernster irreversibler Schäden durch Einatmen, Berührung mit der Haut und durch Verschlucken.*
R 39/26	Sehr giftig: ernste Gefahr irreversiblen Schadens durch Einatmen. *Sehr giftig: Gefahr sehr ernster irreversibler Schäden durch Einatmen.*

R 39/27	Sehr giftig: ernste Gefahr irreversiblen Schadens bei Berührung mit der Haut. *Sehr giftig: Gefahr sehr ernster irreversibler Schäden bei Berührung mit der Haut.*
R 39/28	Sehr giftig: ernste Gefahr irreversiblen Schadens durch Verschlucken. *Sehr giftig: Gefahr sehr ernster irreversibler Schäden durch Verschlucken.*
R 39/26/27	Sehr giftig: ernste Gefahr irreversiblen Schadens durch Einatmen und bei Berührung mit der Haut. *Sehr giftig: Gefahr sehr ernster irreversibler Schäden durch Einatmen und bei Berührung mit der Haut.*
R 39/26/28	Sehr giftig: ernste Gefahr irreversiblen Schadens durch Einatmen und durch Verschlucken. *Sehr giftig: Gefahr sehr ernster irreversibler Schäden durch Einatmen und durch Verschlucken.*
R 39/27/28	Sehr giftig: ernste Gefahr irreversiblen Schadens bei Berührung mit der Haut und durch Verschlucken. *Sehr giftig: Gefahr sehr ernster irreversibler Schäden bei Berührung mit der Haut und durch Verschlucken.*
R 39/26/27/28	Sehr giftig: ernste Gefahr irreversiblen Schadens durch Einatmen, Berührung mit der Haut und durch Verschlucken. *Sehr giftig: Gefahr sehr ernster irreversibler Schäden durch Einatmen, Berührung mit der Haut und durch Verschlucken.*
R 42/43	Sensibilisierung durch Einatmen und Hautkontakt möglich.
R 48/20	Gesundheitsschädlich: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Einatmen.
R 48/21	Gesundheitsschädlich: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Berührung mit der Haut.
R 48/22	Gesundheitsschädlich: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Verschlucken.
R 48/20/21	Gesundheitsschädlich: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Einatmen und durch Berührung mit der Haut.
R 48/20/22	Gesundheitsschädlich: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Einatmen und durch Verschlucken.
R 48/21/22	Gesundheitsschädlich: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Berührung mit der Haut und durch Verschlucken.
R 48/20/21/22	Gesundheitsschädlich: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Einatmen, Berührung mit der Haut und durch Verschlucken.
R 48/23	Giftig: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Einatmen.
R 48/24	Giftig: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Berührung mit der Haut.
R 48/25	Giftig: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Verschlucken.

R 48/23/24	Giftig: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Einatmen und durch Berührung mit der Haut.
R 48/23/25	Giftig: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Einatmen und durch Verschlucken.
R 48/24/25	Giftig: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Berührung mit der Haut und durch Verschlucken.
R 48/23/24/25	Giftig: Gefahr ernster Gesundheitsschäden bei längerer Exposition durch Einatmen, Berührung mit der Haut und durch Verschlucken.
R 50/53	Sehr giftig für Wasserorganismen, kann in Gewässern längerfristig schädliche Wirkungen haben.
R 51/53	Giftig für Wasserorganismen, kann in Gewässern längerfristig schädliche Wirkungen haben.
R 52/53	Schädlich für Wasserorganismen, kann in Gewässern längerfristig schädliche Wirkungen haben.
R 68/20	Gesundheitsschädlich: Möglichkeit irreversiblen Schadens durch Einatmen.
R 68/21	Gesundheitsschädlich: Möglichkeit irreversiblen Schadens bei Berührung mit der Haut.
R 68/22	Gesundheitsschädlich: Möglichkeit irreversiblen Schadens durch Verschlucken.
R 68/20/21	Gesundheitsschädlich: Möglichkeit irreversiblen Schadens durch Einatmen und bei Berührung mit der Haut.
R 68/20/22	Gesundheitsschädlich: Möglichkeit irreversiblen Schadens durch Einatmen und durch Verschlucken.
R 68/21/22	Gesundheitsschädlich: Möglichkeit irreversiblen Schadens bei Berührung mit der Haut und durch Verschlucken.
R 68/20/21/22	Gesundheitsschädlich: Möglichkeit irreversiblen Schadens durch Einatmen, Berührung mit der Haut und durch Verschlucken.
S 1	Unter Verschluss aufbewahren.
S 2	Darf nicht in die Hände von Kindern gelangen.
S 3	Kühl aufbewahren.
S 4	Von Wohnplätzen fern halten.
S 5	Unter ... aufbewahren.
S 6	Unter ... aufbewahren.
S 7	Behälter dicht geschlossen halten.
S 8	Behälter trocken halten.
S 9	Behälter an einem gut gelüfteten Ort aufbewahren.
S 12	Behälter nicht gasdicht verschließen.
S 13	Von Nahrungsmitteln, Getränken und Futtermitteln fern halten.
S 14	Von ... fern halten.
S 15	Vor Hitze schützen.

S 16	Von Zündquellen fern halten – Nicht rauchen.
S 17	Von brennbaren Stoffen fern halten.
S 18	Behälter mit Vorsicht öffnen und handhaben.
S 20	Bei der Arbeit nicht essen und trinken.
S 21	Bei der Arbeit nicht rauchen.
S 22	Staub nicht einatmen.
S 23	… nicht einatmen.
S 23.0	Gas / Rauch / Dampf / Aerosol nicht einatmen.
S 23.1	Gas nicht einatmen.
S 23.2	Rauch nicht einatmen.
S 23.3	Dampf nicht einatmen.
S 23.4	Aerosol nicht einatmen.
S 24	Berührung mit der Haut vermeiden.
S 25	Berührung mit den Augen vermeiden.
S 26	Bei Berührung mit den Augen sofort gründlich mit Wasser abspülen und Arzt konsultieren.
S 27	Beschmutzte, getränkte Kleidung sofort ausziehen.
S 28	Bei Berührung mit der Haut sofort abwaschen mit viel ….
S 29	Nicht in die Kanalisation gelangen lassen.
S 30	Niemals Wasser hinzugießen.
S 33	Maßnahmen gegen elektrostatische Aufladungen treffen.
S 35	Abfälle und Behälter müssen in gesicherter Weise beseitigt werden.
S 36	Bei der Arbeit geeignete Schutzkleidung tragen.
S 37	Geeignete Schutzhandschuhe tragen.
S 38	Bei unzureichender Belüftung Atemschutzgerät anlegen.
S 39	Schutzbrille / Gesichtsschutz tragen.
S 40	Fußboden und verunreinigte Gegenstände mit … reinigen.
S 41	Explosions- und Brandgase nicht einatmen.
S 42	Beim Räuchern / Versprühen geeignetes Atemschutzgerät anlegen.
S 43.0	Zum Löschen … verwenden.
S 43.1	Zum Löschen … verwenden. Kein Wasser verwenden.
S 45	Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, dieses Etikett vorzeigen). *Bei Unfall oder Unwohlsein sofort Arzt zuziehen (wenn möglich, Etikett vorzeigen).*
S 46	Bei Verschlucken sofort ärztlichen Rat einholen und Verpackung oder Etikett vorzeigen.
S 47	Nicht bei Temperaturen über … °C aufbewahren.
S 48	Feucht halten mit ….

S 49	Nur im Originalbehälter aufbewahren.
S 50	Nicht mischen mit ....
S 51	Nur in gut gelüfteten Bereichen verwenden.
S 52	Nicht großflächig für Wohn- und Aufenthaltsräume zu verwenden.
S 53	Exposition vermeiden – vor Gebrauch besondere Anweisungen einholen.
S 56	Dieses Produkt und seinen Behälter der Problemabfallentsorgung zuführen.
S 57	Zur Vermeidung einer Kontamination der Umwelt geeigneten Behälter verwenden.
S 59	Informationen zur Wiederverwendung / Wiederverwertung beim Hersteller / Lieferanten erfragen.
S 60	Dieser Stoff und sein Behälter sind als gefährlicher Abfall zu entsorgen.
S 61	Freisetzung in die Umwelt vermeiden. Besondere Anweisungen einholen / Sicherheitsdatenblatt zu Rate ziehen.
S 62	Bei Verschlucken kein Erbrechen herbeiführen. Sofort ärztlichen Rat einholen und Verpackung oder dieses Etikett vorzeigen.
	Bei Verschlucken kein Erbrechen herbeiführen. Sofort ärztlichen Rat einholen und Verpackung oder Etikett vorzeigen.
S 63	Bei Unfall durch Einatmen: Verunfallten an die frische Luft bringen und ruhigstellen.
S 64	Bei Verschlucken Mund mit Wasser ausspülen (nur wenn Verunfallter bei Bewusstsein ist).
S 1/2	Unter Verschluss und für Kinder unzugänglich aufbewahren.
S 3/7	Behälter dicht geschlossen halten und an einem kühlen Ort aufbewahren.
S 3/9/14	An einem kühlen, gut gelüfteten Ort, entfernt von ... aufbewahren.
S 3/9/14/49	Nur im Originalbehälter an einem kühlen, gut gelüfteten Ort, entfernt von ... aufbewahren.
S 3/9/49	Nur im Originalbehälter an einem kühlen, gut gelüfteten Ort aufbewahren.
S 3/14	An einem kühlen, von ... entfernten Ort aufbewahren.
S 7/8	Behälter trocken und dicht geschlossen halten.
S 7/9	Behälter dicht geschlossen an einem gut gelüfteten Ort aufbewahren.
S 7/47	Behälter dicht geschlossen und nicht bei Temperaturen über ... °C aufbewahren.
S 20/21	Bei der Arbeit nicht essen, trinken, rauchen.
S 24/25	Berührung mit den Augen und der Haut vermeiden.
S 27/28	Bei Berührung mit der Haut beschmutzte, getränkte Kleidung sofort ausziehen und Haut sofort abwaschen mit viel ....
S 29/35	Nicht in die Kanalisation gelangen lassen; Abfälle und Behälter müssen in gesicherter Weise beseitigt werden.
S 29/56	Nicht in die Kanalisation gelangen lassen; dieses Produkt und seinen Behälter der Problemabfallentsorgung zuführen.

S 36/37	Bei der Arbeit geeignete Schutzhandschuhe und Schutzkleidung tragen.
S 36/37/39	Bei der Arbeit geeignete Schutzkleidung, Schutzhandschuhe und Schutzbrille / Gesichtsschutz tragen.
S 36/39	Bei der Arbeit geeignete Schutzkleidung und Schutzbrille / Gesichtsschutz tragen.
S 37/39	Bei der Arbeit geeignete Schutzhandschuhe und Schutzbrille / Gesichtsschutz tragen.
S 47/49	Nur im Originalbehälter bei einer Temperatur von nicht über . . . °C aufbewahren.

Spanish

Ignacio Fernández Galván sent me the Spanish phrases copy-and-paste-ready. What a surprise! I was done in five minutes. Thanks a lot!

R 1	Explosivo en estado seco.
R 2	Riesgo de explosión por choque, fricción, fuego u otras fuentes de ignición.
R 3	Alto riesgo de explosión por choque, fricción, fuego u otras fuentes de ignición.
R 4	Forma compuestos metálicos explosivos muy sensibles.
R 5	Peligro de explosión en caso de calentamiento.
R 6	Peligro de explosión, en contacto o sin contacto con el aire.
R 7	Puede provocar incendios.
R 8	Peligro de fuego en contacto con materias combustibles.
R 9	Peligro de explosión al mezclar con materias combustibles.
R 10	Inflamable.
R 11	Fácilmente inflamable.
R 12	Extremadamente inflamable.
R 14	Reacciona violentamente con el agua.
R 15	Reacciona con el agua liberando gases extremadamente inflamables.
R 16	Puede explosionar en mezcla con substancias comburentes.
R 17	Se inflama espontáneamente en contacto con el aire.
R 18	Al usarlo pueden formarse mezclas aire-vapor explosivas / inflamables.
R 19	Puede formar peróxidos explosivos.
R 20	Nocivo por inhalación.
R 21	Nocivo en contacto con la piel.
R 22	Nocivo por ingestión.
R 23	Tóxico por inhalación.
R 24	Tóxico en contacto con la piel.
R 25	Tóxico por ingestión.

R 26	Muy tóxico por inhalación.
R 27	Muy tóxico en contacto con la piel.
R 28	Muy tóxico por ingestión.
R 29	En contacto con agua libera gases tóxicos.
R 30	Puede inflamarse fácilmente al usarlo.
R 31	En contacto con ácidos libera gases tóxicos.
R 32	En contacto con ácidos libera gases muy tóxicos.
R 33	Peligro de efectos acumulativos.
R 34	Provoca quemaduras.
R 35	Provoca quemaduras graves.
R 36	Irrita los ojos.
R 37	Irrita las vías respiratorias.
R 38	Irrita la piel.
R 39	Peligro de efectos irreversibles muy graves.
R 40	Posibles efectos cancerígenos.
R 41	Riesgo de lesiones oculares graves.
R 42	Posibilidad de sensibilización por inhalación.
R 43	Posibilidad de sensibilización en contacto con la piel.
R 44	Riesgo de explosión al calentarlo en ambiente confinado.
R 45	Puede causar cáncer.
R 46	Puede causar alteraciones genéticas hereditarias.
R 48	Riesgo de efectos graves para la salud en caso de exposición prolongada.
R 49	Puede causar cáncer por inhalación.
R 50	Muy tóxico para los organismos acuáticos.
R 51	Tóxico para los organismos acuáticos.
R 52	Nocivo para los organismos acuáticos.
R 53	Puede provocar a largo plazo efectos negativos en el medio ambiente acuático.
R 54	Tóxico para la flora.
R 55	Tóxico para la fauna.
R 56	Tóxico para los organismos del suelo.
R 57	Tóxico para las abejas.
R 58	Puede provocar a largo plazo efectos negativos en el medio ambiente.
R 59	Peligroso para la capa de ozono.
R 60	Puede perjudicar la fertilidad.
R 61	Riesgo durante el embarazo de efectos adversos para el feto.
R 62	Posible riesgo de perjudicar la fertilidad.
R 63	Posible riesgo durante el embarazo de efectos adversos para el feto.

R 64	Puede perjudicar a los niños alimentados con leche materna.
R 65	Nocivo: si se ingiere puede causar daño pulmonar.
R 66	La exposición repetida puede provocar sequedad o formación de grietas en la piel.
R 67	La inhalación de vapores puede provocar somnolencia y vértigo.
R 68	Posibilidad de efectos irreversibles.
R 14/15	Reacciona violentamente con el agua, liberando gases extremadamente inflamables.
R 15/29	En contacto con el agua, libera gases tóxicos y extremadamente inflamables.
R 20/21	Nocivo por inhalación y en contacto con la piel.
R 20/22	Nocivo por inhalación y por ingestión.
R 20/21/22	Nocivo por inhalación, por ingestión y en contacto con la piel.
R 21/22	Nocivo en contacto con la piel y por ingestión.
R 23/24	Tóxico por inhalación y en contacto con la piel.
R 23/25	Tóxico por inhalación y por ingestión.
R 23/24/25	Tóxico por inhalación, por ingestión y en contacto con la piel.
R 24/25	Tóxico en contacto con la piel y por ingestión.
R 26/27	Muy tóxico por inhalación y en contacto con la piel.
R 26/28	Muy tóxico por inhalación y por ingestión.
R 26/27/28	Muy tóxico por inhalación, por ingestión y en contacto con la piel.
R 27/28	Muy tóxico en contacto con la piel y por ingestión.
R 36/37	Irrita los ojos y las vías respiratorias.
R 36/38	Irrita los ojos y la piel.
R 36/37/38	Irrita los ojos, la piel y las vías respiratorias.
R 37/38	Irrita las vías respiratorias y la piel.
R 39/23	Tóxico: peligro de efectos irreversibles muy graves por inhalación.
R 39/24	Tóxico: peligro de efectos irreversibles muy graves por contacto con la piel.
R 39/25	Tóxico: peligro de efectos irreversibles muy graves por ingestión.
R 39/23/24	Tóxico: peligro de efectos irreversibles muy graves por inhalación y contacto con la piel.
R 39/23/25	Tóxico: peligro de efectos irreversibles muy graves por inhalación e ingestión.
R 39/24/25	Tóxico: peligro de efectos irreversibles muy graves por contacto con la piel e ingestión.
R 39/23/24/25	Tóxico: peligro de efectos irreversibles muy graves por inhalación, contacto con la piel e ingestión.
R 39/26	Muy tóxico: peligro de efectos irreversibles muy graves por inhalación.
R 39/27	Muy tóxico: peligro de efectos irreversibles muy graves por contacto con la piel.

R 39/28	Muy tóxico: peligro de efectos irreversibles muy graves por ingestión.
R 39/26/27	Muy tóxico: peligro de efectos irreversibles muy graves por inhalación y contacto con la piel.
R 39/26/28	Muy tóxico: peligro de efectos irreversibles muy graves por inhalación e ingestión.
R 39/27/28	Muy tóxico: peligro de efectos irreversibles muy graves por contacto con la piel e ingestión.
R 39/26/27/28	Muy tóxico: peligro de efectos irreversibles muy graves por inhalación, contacto con la piel e ingestión.
R 42/43	Posibilidad de sensibilización por inhalación y por contacto con la piel.
R 48/20	Nocivo: riesgo de efectos graves para la salud en caso de exposición prolongada por inhalación.
R 48/21	Nocivo: riesgo de efectos graves para la salud en caso de exposición prolongada por contacto con la piel.
R 48/22	Nocivo: riesgo de efectos graves para la salud en caso de exposición prolongada por ingestión.
R 48/20/21	Nocivo: riesgo de efectos graves para la salud en caso de exposición prolongada por inhalación y contacto con la piel.
R 48/20/22	Nocivo: riesgo de efectos graves para la salud en caso de exposición prolongada por inhalación e ingestión.
R 48/21/22	Nocivo: riesgo de efectos graves para la salud en caso de exposición prolongada por contacto con la piel e ingestión.
R 48/20/21/22	Nocivo: riesgo de efectos graves para la salud en caso de exposición prolongada por inhalación, contacto con la piel e ingestión.
R 48/23	Tóxico: riesgo de efectos graves para la salud en caso de exposición prolongada por inhalación.
R 48/24	Tóxico: riesgo de efectos graves para la salud en caso de exposición prolongada por contacto con la piel.
R 48/25	Tóxico: riesgo de efectos graves para la salud en caso de exposición prolongada por ingestión.
R 48/23/24	Tóxico: riesgo de efectos graves para la salud en caso de exposición prolongada por inhalación y contacto con la piel.
R 48/23/25	Tóxico: riesgo de efectos graves para la salud en caso de exposición prolongada por inhalación e ingestión.
R 48/24/25	Tóxico: riesgo de efectos graves para la salud en caso de exposición prolongada por contacto con la piel e ingestión.
R 48/23/24/25	Tóxico: riesgo de efectos graves para la salud en caso de exposición prolongada por inhalación, contacto con la piel e ingestión.
R 50/53	Muy tóxico para los organismos acuáticos, puede provocar a largo plazo efectos negativos en el medio ambiente acuático.

R 51/53	Tóxico para los organismos acuáticos, puede provocar a largo plazo efectos negativos en el medio ambiente acuático.
R 52/53	Nocivo para los organismos acuáticos, puede provocar a largo plazo efectos negativos en el medio ambiente acuático.
R 68/20	Nocivo: posibilidad de efectos irreversibles por inhalación.
R 68/21	Nocivo: posibilidad de efectos irreversibles por contacto con la piel.
R 68/22	Nocivo: posibilidad de efectos irreversibles por ingestión.
R 68/20/21	Nocivo: posibilidad de efectos irreversibles por inhalación y contacto con la piel.
R 68/20/22	Nocivo: posibilidad de efectos irreversibles por inhalación e ingestión.
R 68/21/22	Nocivo: posibilidad de efectos irreversibles por contacto con la piel e ingestión.
R 68/20/21/22	Nocivo: posibilidad de efectos irreversibles por inhalación, contacto con la piel e ingestión.

S 1	Consérvese bajo llave.
S 2	Manténgase fuera del alcance de los niños.
S 3	Consérvese en lugar fresco.
S 4	Manténgase lejos de locales habitados.
S 5	Consérvese en ....
S 6	Consérvese en ....
S 7	Manténgase el recipiente bien cerrado.
S 8	Manténgase el recipiente en lugar seco.
S 9	Consérvese el recipiente en lugar bien ventilado.
S 12	No cerrar el recipiente herméticamente.
S 13	Manténgase lejos de alimentos, bebidas y piensos.
S 14	Consérvese lejos de ....
S 15	Conservar alejado del calor.
S 16	Conservar alejado de toda llama o fuente de chispas – No fumar.
S 17	Manténgase lejos de materias combustibles.
S 18	Manipúlese y ábrase el recipiente con prudencia.
S 20	No comer ni beber durante su utilización.
S 21	No fumar durante su utilización.
S 22	No respirar el polvo.
S 23	No respirar los ....
S 23.0	No respirar los gases / humos / vapores / aerosoles.
S 23.1	No respirar los gases.
S 23.2	No respirar los humos.
S 23.3	No respirar los vapores.
S 23.4	No respirar los aerosoles.

S 24	Evítese el contacto con la piel.
S 25	Evítese el contacto con los ojos.
S 26	En caso de contacto con los ojos, lávense inmediata y abundantemente con agua y acúdase a un médico.
S 27	Quítese inmediatamente la ropa manchada o salpicada.
S 28	En caso de contacto con la piel, lávese inmediata y abundantemente con ....
S 29	No tirar los residuos por el desagüe.
S 30	No echar jamás agua a este producto.
S 33	Evítese la acumulación de cargas electrostáticas.
S 35	Elimínense los residuos del producto y sus recipientes con todas las precauciones posibles.
S 36	Úsese indumentaria protectora adecuada.
S 37	Úsense guantes adecuados.
S 38	En caso de ventilación insuficiente, úsese equipo respiratorio adecuado.
S 39	Úsese protección para los ojos / la cara.
S 40	Para limpiar el suelo y los objetos contaminados por este producto, úsese ....
S 41	En caso de incendio y / o de explosión no respire los humos.
S 42	Durante las ..., úsese equipo respiratorio adecuado.
S 42.0	Durante las fumigaciones / pulverizaciones, úsese equipo respiratorio adecuado.
S 42.1	Durante las fumigaciones, úsese equipo respiratorio adecuado.
S 42.2	Durante las pulverizaciones, úsese equipo respiratorio adecuado.
S 43.0	En caso de incendio, utilizar ....
S 43.1	En caso de incendio, utilizar .... No usar nunca agua.
S 45	En caso de accidente o malestar, acúdase inmediatamente al médico (si es posible, muéstresele la etiqueta).
S 46	En caso de ingestión, acúdase inmediatamente al médico y muéstresele la etiqueta o el envase.
S 47	Consérvese a una temperatura no superior a ... °C.
S 48	Consérvese húmedo con ....
S 49	Consérvese únicamente en el recipiente de origen.
S 50	No mezclar con ....
S 51	Úsese únicamente en lugares bien ventilados.
S 52	No usar sobre grandes superficies en locales habitados.
S 53	Evítese la exposición – recábense instrucciones especiales antes del uso.
S 56	Elimínense esta sustancia y su recipiente en un punto de recogida pública de residuos especiales o peligrosos.
S 57	Utilícese un envase de seguridad adecuado para evitar la contaminación del medio ambiente.

S 59	Remitirse al fabricante o proveedor para obtener información sobre su recuperación / reciclado.
S 60	Elimínense el producto y su recipiente como residuos peligrosos.
S 61	Evítese su liberación el medio ambiente. Recábense instrucciones específicas / las fichas de datos de seguridad.
S 62	En caso de ingestión no provocar el vómito: acúdase inmediatamente al médico y muéstresele la etiqueta o el envase.
S 63	En caso de accidente por inhalación, alejar a la víctima de la zona contaminada y mantenerla en reposo.
S 64	En caso de ingestión, enjuáguese la boca con agua (solamente si la persona está consciente).
S 1/2	Consérvese bajo llave y manténgase fuera del alcance de los niños.
S 3/7	Consérvese el recipiente bien cerrado y en lugar fresco.
S 3/9/14	Consérvese en lugar fresco y bien ventilado y lejos de ....
S 3/9/14/49	Consérvese únicamente en el recipiente de origen, en lugar fresco y bien ventilado y lejos de ....
S 3/9/49	Consérvese únicamente en el recipiente de origen, en lugar fresco y bien ventilado.
S 3/14	Consérvese en lugar fresco y lejos de ....
S 7/8	Manténgase el recipiente bien cerrado y en lugar seco.
S 7/9	Manténgase el recipiente bien cerrado y en lugar bien ventilado.
S 7/47	Manténgase el recipiente bien cerrado y consérvese a una temperatura no superior a ... °C.
S 20/21	No comer, ni beber, ni fumar durante su utilización.
S 24/25	Evítese el contacto con los ojos y la piel.
S 27/28	Después del contacto con la piel, quítese inmediatamente toda la ropa manchada o salpicada y lávese inmediata y abundantemente con ....
S 29/35	No tirar los residuos por el desagüe; elimínense los residuos del producto y sus recipientes con todas las precauciones posibles.
S 29/56	No tirar los residuos por el desagüe; elimínese esta sustancia y su recipiente en un punto de recogida pública de residuos especiales o peligrosos.
S 36/37	Úsense indumentaria y guantes de protección adecuados.
S 36/37/39	Úsense indumentaria y guantes adecuados y protección para los ojos / la cara.
S 36/39	Úsense indumentaria adecuada y protección para los ojos / la cara.
S 37/39	Úsense guantes adecuados y protección para los ojos / la cara.
S 47/49	Consérvese únicamente en el recipiente de origen y a temperatura no superior a ... °C.

Italian

Italian phrases implemented by Lorenzo Vagnarelli. Thanks a lot.

R 1	Esplosivo allo stato secco.
R 2	Rischio di esplosione per urto, sfregamento, fuoco o altre sorgenti d'ignizione.
R 3	Elevato rischio di esplosione per urto, sfregamento, fuoco o altre sorgenti d'ignizione.
R 4	Forma composti metallici esplosivi molto sensibili.
R 5	Pericolo di esplosione per riscaldamento.
R 6	Esplosivo a contatto o senza contatto con l'aria.
R 7	Può provocare un incendio.
R 8	Può provocare l'accensione di materie combustibili.
R 9	Esplosivo in miscela con materie combustibili.
R 10	Infiammabile.
R 11	Facilmente infiammabile.
R 12	Estremamente infiammabile.
R 14	Reagisce violentemente con l'acqua.
R 15	A contatto con l'acqua libera gas estremamente infiammabili.
R 16	Pericolo di esplosione se mescolato con sostanze comburenti.
R 17	Spontaneamente infiammabile all'aria.
R 18	Durante l'uso può formare con aria miscele esplosive / infiammabili.
R 19	Può formare perossidi esplosivi.
R 20	Nocivo per inalazione.
R 21	Nocivo a contatto con la pelle.
R 22	Nocivo per ingestione.
R 23	Tossico per inalazione.
R 24	Tossico a contatto con la pelle.
R 25	Tossico per ingestione.
R 26	Molto tossico per inalazione.
R 27	Molto tossico a contatto con la pelle.
R 28	Molto tossico per ingestione.
R 29	A contatto con l'acqua libera gas tossici.
R 30	Può divenire facilmente infiammabile durante l'uso.
R 31	A contatto con acidi libera gas tossico.
R 32	A contatto con acidi libera gas molto tossico.
R 33	Pericolo di effetti cumulativi.
R 34	Provoca ustioni.
R 35	Provoca gravi ustioni.

R 36	Irritante per gli occhi.
R 37	Irritante per le vie respiratorie.
R 38	Irritante per la pelle.
R 39	Pericolo di effetti irreversibili molto gravi.
R 40	Possibilità di effetti cancerogeni — prove insufficienti.
R 41	Rischio di gravi lesioni oculari.
R 42	Può provocare sensibilizzazione per inalazione.
R 43	Può provocare sensibilizzazione per contatto con la pelle.
R 44	Rischio di esplosione per riscaldamento in ambiente confinato.
R 45	Può provocare il cancro.
R 46	Può provocare alterazioni genetiche ereditarie.
R 48	Pericolo di gravi danni per la salute in caso di esposizione prolungata.
R 49	Può provocare il cancro per inalazione.
R 50	Altamente tossico per gli organismi acquatici.
R 51	Tossico per gli organismi acquatici.
R 52	Nocivo per gli organismi acquatici.
R 53	Può provocare a lungo termine effetti negativi per l'ambiente acquatico.
R 54	Tossico per la flora.
R 55	Tossico per la fauna.
R 56	Tossico per gli organismi del terreno.
R 57	Tossico per le api.
R 58	Può provocare a lungo termine effetti negativi per l'ambiente.
R 59	Pericoloso per lo strato di ozono.
R 60	Può ridurre la fertilità.
R 61	Può danneggiare i bambini non ancora nati.
R 62	Possibile rischio di ridotta fertilità.
R 63	Possibile rischio di danni ai bambini non ancora nati.
R 64	Possibile rischio per i bambini allattati al seno.
R 65	Nocivo: può causare danni ai polmoni in caso di ingestione.
R 66	L'esposizione ripetuta può provocare secchezza e screpolature della pelle.
R 67	L'inalazione dei vapori può provocare sonnolenza e vertigini.
R 68	Possibilità di effetti irreversibili.
R 14/15	Reagisce violentemente con l'acqua liberando gas estremamente infiammabili.
R 15/29	A contatto con acqua libera gas tossici e estremamente infiammabili.
R 20/21	Nocivo per inalazione e contatto con la pelle.
R 20/22	Nocivo per inalazione e ingestione.
R 20/21/22	Nocivo per inalazione, contatto con la pelle e per ingestione.

R 21/22	Nocivo a contatto con la pelle e per ingestione.
R 23/24	Tossico per inalazione e contatto con la pelle.
R 23/25	Tossico per inalazione e ingestione.
R 23/24/25	Tossico per inalazione, contatto con la pelle e per ingestione.
R 24/25	Tossico a contatto con la pelle e per ingestione.
R 26/27	Molto tossico per inalazione e contatto con la pelle.
R 26/28	Molto tossico per inalazione e per ingestione.
R 26/27/28	Molto tossico per inalazione, contatto con la pelle e per ingestione.
R 27/28	Molto tossico a contatto con la pelle e per ingestione.
R 36/37	Irritante per gli occhi e le vie respiratorie.
R 36/38	Irritante per gli occhi e la pelle.
R 36/37/38	Irritante per gli occhi, le vie respiratorie e la pelle.
R 37/38	Irritante per le vie respiratorie e la pelle.
R 39/23	Tossico: pericolo di effetti irreversibili molto gravi per inalazione.
R 39/24	Tossico: pericolo di effetti irreversibili molto gravi a contatto con la pelle.
R 39/25	Tossico: pericolo di effetti irreversibili molto gravi per ingestione.
R 39/23/24	Tossico: pericolo di effetti irreversibili molto gravi per inalazione e a contatto con la pelle.
R 39/23/25	Tossico: pericolo di effetti irreversibili molto gravi per inalazione ed ingestione.
R 39/24/25	Tossico: pericolo di effetti irreversibili molto gravi a contatto con la pelle e per ingestione.
R 39/23/24/25	Tossico: pericolo di effetti irreversibili molto gravi per inalazione, a contatto con la pelle e per ingestione.
R 39/26	Molto tossico: pericolo di effetti irreversibili molto gravi per inalazione.
R 39/27	Molto tossico: pericolo di effetti irreversibili molto gravi a contatto con la pelle.
R 39/28	Molto tossico: pericolo di effetti irreversibili molto gravi per ingestione.
R 39/26/27	Molto tossico: pericolo di effetti irreversibili molto gravi per inalazione e a contatto con la pelle.
R 39/26/28	Molto tossico: pericolo di effetti irreversibili molto gravi per inalazione ed ingestione.
R 39/27/28	Molto tossico: pericolo di effetti irreversibili molto gravi a contatto con la pelle e per ingestione.
R 39/26/27/28	Molto tossico: pericolo di effetti irreversibili molto gravi per inalazione, a contatto con la pelle e per ingestione.
R 42/43	Può provocare sensibilizzazione per inalazione e contatto con la pelle.
R 48/20	Nocivo: pericolo di gravi danni per la salute in caso di esposizione prolungata per inalazione.
R 48/21	Nocivo: pericolo di gravi danni alla salute in caso di esposizione prolungata a contatto con la pelle.

R 48/22	Nocivo: pericolo di gravi danni alla salute in caso di esposizione prolungata per ingestione.
R 48/20/21	Nocivo: pericolo di gravi danni alla salute in caso di esposizione prolungata per inalazione e a contatto con la pelle.
R 48/20/22	Nocivo: pericolo di gravi danni alla salute in caso di esposizione prolungata per inalazione e ingestione.
R 48/21/22	Nocivo: pericolo di gravi danni alla salute in caso di esposizione prolungata a contatto con la pelle e per ingestione.
R 48/20/21/22	Nocivo: pericolo di gravi danni alla salute in caso di esposizione prolungata per inalazione, a contatto con la pelle e per ingestione.
R 48/23	Tossico: pericolo di gravi danni alla salute in caso di esposizione prolungata per inalazione.
R 48/24	Tossico: pericolo di gravi danni alla salute in caso di esposizione prolungata a contatto con la pelle.
R 48/25	Tossico: pericolo di gravi danni alla salute in caso di esposizione prolungata per ingestione.
R 48/23/24	Tossico: pericolo di gravi danni alla salute in caso di esposizione prolungata per inalazione e a contatto con la pelle.
R 48/23/25	Tossico: pericolo di gravi danni alla salute in caso di esposizione prolungata per inalazione ed ingestione.
R 48/24/25	Tossico: pericolo di gravi danni alla salute in caso di esposizione prolungata a contatto con la pelle e per ingestione.
R 48/23/24/25	Tossico: pericolo di gravi danni alla salute in caso di esposizione prolungata per inalazione, a contatto con la pelle e per ingestione.
R 50/53	Altamente tossico per gli organismi acquatici, può provocare a lungo termine effetti negativi per l'ambiente acquatico.
R 51/53	Tossico per gli organismi acquatici, può provocare a lungo termine effetti negativi per l'ambiente acquatico.
R 52/53	Nocivo per gli organismi acquatici, può provocare a lungo termine effetti negativi per l'ambiente acquatico.
R 68/20	Nocivo: possibilità di effetti irreversibili per inalazione.
R 68/21	Nocivo: possibilità di effetti irreversibili a contatto con la pelle.
R 68/22	Nocivo: possibilità di effetti irreversibili per ingestione.
R 68/20/21	Nocivo: possibilità di effetti irreversibili per inalazione e a contatto con la pelle.
R 68/20/22	Nocivo: possibilità di effetti irreversibili per inalazione ed ingestione.
R 68/21/22	Nocivo: possibilità di effetti irreversibili a contatto con la pelle e per ingestione.
R 68/20/21/22	Nocivo: possibilità di effetti irreversibili per inalazione, a contatto con la pelle e per ingestione.
S 1	Conservare sotto chiave.
S 2	Conservare fuori della portata dei bambini.

S 3	Conservare in luogo fresco.
S 4	Conservare lontano da locali di abitazione.
S 5	Conservare sotto ....
S 6	Conservare sotto ....
S 7	Conservare il recipiente ben chiuso.
S 8	Conservare al riparo dall'umidità.
S 9	Conservare il recipiente in luogo ben ventilato.
S 12	Non chiudere ermeticamente il recipiente.
S 13	Conservare lontano da alimenti o mangimi e da bevande.
S 14	Conservare lontano da ....
S 15	Conservare lontano dal calore.
S 16	Conservare lontano da fiamme e scintille – Non fumare.
S 17	Tenere lontano da sostanze combustibili.
S 18	Manipolare ed aprire il recipiente con cautela.
S 20	Non mangiare né bere durante l'impiego.
S 21	Non fumare durante l'impiego.
S 22	Non respirare le polveri.
S 23	Non respirare i ....
S 24	Evitare il contatto con la pelle.
S 25	Evitare il contatto con gli occhi.
S 26	In caso di contatto con gli occhi, lavare immediatamente e abbondantemente con acqua e consultare un medico.
S 27	Togliersi di dosso immediatamente gli indumenti contaminati.
S 28	In caso di contatto con la pelle lavarsi immediatamente ed abbondantemente con ....
S 29	Non gettare i residui nelle fognature.
S 30	Non versare acqua sul prodotto.
S 33	Evitare l'accumulo di cariche elettrostatiche.
S 35	Non disfarsi del prodotto e del recipiente se non con le dovute precauzioni.
S 36	Usare indumenti protettivi adatti.
S 37	Usare guanti adatti.
S 38	In caso di ventilazione insufficiente, usare un apparecchio respiratorio adatto.
S 39	Proteggersi gli occhi / la faccia.
S 40	Per pulire il pavimento e gli oggetti contaminati da questo prodotto, usare ....
S 41	In caso di incendio e / o esplosione non respirare i fumi.
S 42	Durante le ..., usare un apparecchio respiratorio adatto.
S 42.0	Durante le fumigazioni / polimerizzazioni, usare un apparecchio respiratorio adatto.

S 42.1	Durante le fumigazioni, úsese equipo respiratorio adecuado.
S 42.2	Durante le polimerizzazioni, usare un apparecchio respiratorio adatto.
S 43.0	In caso di incendio, usare ....
S 43.1	In caso di incendio, usare .... Non usare acqua.
S 45	In caso di incidente o di malessere consultare immediatamente il medico (se possibile, mostrargli l'etichetta).
S 46	In caso d'ingestione consultare immediatamente il medico e mostrargli il contenitore o l'etichetta.
S 47	Conservare a temperatura non superiore a ... °C.
S 48	Mantenere umido con ....
S 49	Conservare soltanto nel recipiente originale.
S 50	Non mescolare con ....
S 51	Usare soltanto in luogo ben ventilato.
S 52	Non utilizzare su grandi superfici in locali abitati.
S 53	Evitare l'esposizione – procurarsi speciali istruzioni prima dell'uso.
S 56	Smaltire questo materiale e i relativi contenitori in un punto di raccolta rifiuti pericolosi o speciali.
S 57	Usare contenitori adeguati per evitare l'inquinamento ambientale.
S 59	Richiedere informazioni al produttore / venditore per il recupero / riciclaggio.
S 60	Questo materiale e il suo contenitore devono essere smaltiti come rifiuti pericolosi.
S 61	Non disperdere nell'ambiente. Riferirsi alle istruzioni speciali / schede informative in materia di sicurezza.
S 62	In caso di ingestione non provocare il vomito: consultare immediatamente il medico e mostrargli il contenitore o l'etichetta.
S 63	In caso di incidente per inalazione, allontanare l'infortunato dalla zona contaminata e mantenerlo a riposo.
S 64	In caso di ingestione, sciacquare la bocca con acqua (solamente se l'infortunato è cosciente).
S 1/2	Conservare sotto chiave e fuori della portata dei bambini.
S 3/7	Tenere il recipiente ben chiuso in luogo fresco.
S 3/9/14	Conservare in luogo fresco e ben ventilato lontano da ....
S 3/9/14/49	Conservare soltanto nel contenitore originale in luogo fresco e ben ventilato lontano da ....
S 3/9/49	Conservare soltanto nel contenitore originale in luogo fresco e ben ventilato.
S 3/14	Conservare in luogo fresco lontano da ....
S 7/8	Conservare il recipiente ben chiuso e al riparo dall'umidità.
S 7/9	Tenere il recipiente ben chiuso e in luogo ben ventilato.
S 7/47	Tenere il recipiente ben chiuso e a temperatura non superiore a ... °C.

S 20/21	Non mangiare, né bere, né fumare durante l'impiego.
S 24/25	Evitare il contatto con gli occhi e con la pelle.
S 27/28	In caso di contatto con la pelle, togliersi di dosso immediatamente gli indumenti contaminati e lavarsi immediatamente e abbondantemente con ....
S 29/35	Non gettare i residui nelle fognature; non disfarsi del prodotto e del recipiente se non con le dovute precauzioni.
S 29/56	Non gettare i residui nelle fognature; smaltire questo materiale e i relativi contenitori in un punto di raccolta rifiuti pericolosi o speciali.
S 36/37	Usare indumenti protettivi e guanti adatti.
S 36/37/39	Usare indumenti protettivi e guanti adatti e proteggersi gli occhi / la faccia.
S 36/39	Usare indumenti protettivi adatti e proteggersi gli occhi / la faccia.
S 37/39	Usare guanti adatti e proteggersi gli occhi / la faccia.
S 47/49	Conservare soltanto nel contenitore originale a temperatura non superiore a ... °C.