

# The `r_und_s` package\*

R- and S-phrases for  $\text{\LaTeX}$

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## 1 Copyright and disclaimer

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\*This manual corresponds to `r_und_s.sty` v1.3i, dated September 1, 2005.

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## 2 Description

This packet provides L<sup>A</sup>T<sub>E</sub>X- resp. T<sub>E</sub>X-Commands, which will expand numeric R- and S-codes to a full text form. This is usable for creating safety data sheets and lab protocols. The \*.sty files are for L<sup>A</sup>T<sub>E</sub>X, the \*.tex files are plain T<sub>E</sub>X.

### 2.1 Languages

The following languages are supported and contained in the mentioned files:

German	<code>r_und_s</code>
English	<code>eng_rs</code>
Dutch	<code>nl_rs</code>
French	<code>fr_rs</code>

## 3 Usage

For information on how to use external macros in L<sup>A</sup>T<sub>E</sub>X and T<sub>E</sub>X, please consult one of the many documentations written on this subject. The phrases S 5, S 6, S 14, S 28, S 40, S 43, S 47, S 48, S 50, and the combinations S 3/14, S 3/9/14, S 3/9/14/19, and S 47/49 need a parameter specified by the manufacturer of the product.

## 4 Coding of the numbers

First, the phrases contained in this package are divided into “R-” and “S-” prases, beginning “\cr” and “\cs”. The “c” at the beginning stands for “Chemie” or “chemistry” to avoid conflicts with other L<sup>A</sup>T<sub>E</sub>X-commands.

Because the numerical coding of the R- and S-phrases is not possible with L<sup>A</sup>T<sub>E</sub>X, the phrases are “numbered” with letters (unfortunately, the coding requires the knowledge of a little bit germany, but it’s really easy...)

- 0 → o (the “o” looks like a zero, doesn’t it?)
- 1 → e (“eins” is german for “one”)
- 2 → z (“zwei”, what means “two”)
- 3 → d (“drei”)
- 4 → v (“vier”)
- 5 → f (“fünf”)
- 6 → s (“sechs”)
- 7 → i (“sieben”, but “s” is already used, so took the second letter)
- 8 → a (“acht”);
- 9 → n (“neun” and, how nice, “nine” :-)

For example, R-phrased 2 becomes `\crz`, R-phrased 17 becomes `\crei`, which reads “chemistry, r-phrased eins-sieben (one-seven)”.

Combined phrases need the additional character “c” (for “combined”), e. g. R 23/24/25 becomes “`\crczdzvzf`” (chemistry, r-phrased, combined, zwei-drei- zwei-vier-zwei-fünf (two-three-two-four-two-five)).

Seems difficult? Maybe, but I’ve gotten used to it, and so will you ;-)

## 5 Completeness

The package contains R- and S-phrases up to R 64 and S 62 and their most important combinations. In the French and Dutch version, the combination S 37/38/39 is missing and included in English only, marked with “XXX”.

## 6 Comments

Please send any comments to my email address given below, I will take a look at them and promise to send at least a short confirmation when I recieved the mail.

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