

# Gefahrstoffliste

## für Schülerübungen

Online-Fassung

| Stoffbezeichnung        | Formel                                  |      | R-Sätze        | S-Sätze                      |
|-------------------------|---|------|----------------|------------------------------|
| Aceton                  | $\text{H}_3\text{CCOCH}_3$              | F,Xi | 11-36-66-67    | 9-16-26                      |
| Adipinsäurechlorid      | $\text{ClCO}(\text{CH}_2)_4\text{COCl}$ | C    | 14-34          | 8-20-23-30-26-36/37/39-45-60 |
| β-Alanin                |   |      |                |                              |
| Albumin                 |   |      |                |                              |
| Aluminium (Pulver)      | Al                                      | F    | 10-17          | 7/8-43                       |
| Aluminiumcarbid         | $\text{Al}_4\text{C}_3$                 | F,Xi | 11-15-36/37/38 | 16-26-33-36/37/39            |
| Aluminiumchlorid        | $\text{AlCl}_3$                         | C    | 34             | 7/8-28-45                    |
| Aluminiumhydroxid       | $\text{Al}(\text{OH})_3$                |      |                |                              |
| Aluminiumhydroxidacetat |   | Xi   | 36/38          | 22-26                        |
| Aluminiumnitrat         | $\text{Al}(\text{NO}_3)_3$              | O,Xi | 8-36/38        |                              |
| Aluminiumoxid           | $\text{Al}_2\text{O}_3$                 |      |                | 22                           |
| Aluminiumsulfat         | $\text{Al}_2(\text{SO}_4)_3$            | Xi   | 41             | 26-39                        |
| Ameisensäure (95-100 %) | $\text{CH}_3\text{COOH}$                | C    | 35             | 23-26-45                     |
| Ammoniaklösung          | $\text{NH}_3$                           | C,N  | 34-50          | 26-36/37/39-45-61            |
| Ammoniumcarbonat        | $(\text{NH}_4)_2\text{CO}_3$            | Xn   | 22             |                              |
| Ammoniumchlorid         | $\text{NH}_4\text{Cl}$                  | Xn   | 22-36          | 22                           |

| Stoffbezeichnung         | Formel                                    |    | R-Sätze     | S-Sätze         |
|--------------------------|---|----|-------------|-----------------|
| Ammoniumeisen(II)-sulfat | $(\text{NH}_4)_2\text{Fe}(\text{SO}_4)_2$ | Xi | 36/37/38    | 26-36           |
| Ammoniummolybdat         | $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24}$ | Xi | 36/37/38    | 26              |
| Ammoniumnitrat           | $\text{NH}_4\text{NO}_3$                  | O  | 8-9         | 15-16-41        |
| Ammoniumoxalat           | $(\text{NH}_4)_2\text{C}_2\text{O}_4$     | Xn | 21/22       | 24/25           |
| Ammoniumphosphat         | $(\text{NH}_4)_3\text{PO}_4$              |    |             |                 |
| Ammoniumsulfat           | $(\text{NH}_4)_2\text{SO}_4$              |    |             |                 |
| Ammoniumsulfit           | $(\text{NH}_4)_2\text{SO}_3$              |    |             |                 |
| Ammoniumtartrat          |   |    |             |                 |
| Ammoniumthiocyanat       | $\text{NH}_4\text{SCN}$                   | Xn | 20/21/22-32 | 13              |
| Amylase                  |   | Xn | 42          | 22-24-36/37     |
| Antimon                  | Sb  | Xi | 37          | 22-24/25        |
| Ascorbinsäure, L(+)      |   |    |             |                 |
| Bariumcarbonat           | $\text{BaCO}_3$                           | Xn | 22          | 24/25           |
| Bariumchlorid            | $\text{BaCl}_2$                           | T  | 20-25       | 45              |
| Bariumhydroxid           | $\text{Ba}(\text{OH})_2$                  | C  | 20/22-34    | 26-336/37/39-45 |
| Benzaldehyd              | $\text{C}_6\text{H}_5\text{CHO}$          | Xn | 22          | 24              |

| Stoffbezeichnung              | Formel                 |        | R-Sätze                    | S-Sätze              |
|-------------------------------|------------------------|--------|----------------------------|----------------------|
| Benzin (100-140 °C)           |                        | F,Xn,N | 11-38-48/20-51/53-62-65-67 | 16-29-33-36/37-61-62 |
| Benzoessäure                  | $C_7H_6O_2$            | Xn     | 22-36                      | 24                   |
| Benzylalkohol                 | $C_6H_5CH_2OH$         | Xn     | 20/22                      | 26                   |
| Bernsteinsäure                |                        | Xi     | 36                         | 26                   |
| Brennspiritus (siehe Ethanol) |                        |        |                            |                      |
| Brilliantgrün                 |                        |        |                            |                      |
| Bromphenolblau                | $C_{19}H_{10}Br_4O_5S$ |        |                            |                      |
| Bromthymolblau                |                        |        |                            |                      |
| Butan-1-ol                    | $C_4H_9OH$             | Xn     | 10-22-37/38-41-67          | 7/9-13-26-37/39-46   |
| Buttersäure (Butansäure)      | $C_3H_7COOH$           | C      | 34                         | 26-36-45             |
| Buttersäureethylester         | $C_3H_7CO_2C_2H_5$     |        | 10                         | 24/25                |
| Caesiumsulfat                 | $Cs_2SO_4$             |        |                            |                      |
| Calcium                       | Ca                     | F      | 15                         | 8-24/25-43           |
| Calciumacetat                 | $Ca(CH_3COO)_2$        | Xi     | 36/37/38                   | 26-36                |
| Calciumcarbid                 | $CaC_2$                | F      | 15                         | 8-43                 |
| Calciumcarbonat               | $CaCO_3$               |        |                            |                      |

| Stoffbezeichnung          | Formel   |          | R-Sätze           | S-Sätze                 |
|---------------------------|--|----------|-------------------|-------------------------|
| Calciumchlorid            | CaCl <sub>2</sub>                                | Xi       | 36                | 22-24                   |
| Calciumdihydrogenphosphat | Ca(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub> | Xi       | 36/37/38          | 26                      |
| Calciumfluorid            | CaF <sub>2</sub>                                 |          |                   |                         |
| Calciumhydroxid           | Ca(OH) <sub>2</sub>                              | Xi       | 41                | 22-24-26-39             |
| Calciumnitrat             | Ca(NO <sub>3</sub> ) <sub>2</sub>                | O, Xi    | 8-36              |                         |
| Calciumoxid               | CaO  | Xi       | 41                | 22-24-26-39             |
| Calciumphosphat           | Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>  |          |                   |                         |
| Calciumsulfat             | CaSO <sub>4</sub>                                |          |                   |                         |
| Campher                   | C <sub>10</sub> H <sub>16</sub> O                | F, Xi    | 11-36/37/38       |                         |
| Carminessigsäure          |  | Xi       | 36/37             | 23-26                   |
| Chloressigsäure           | C <sub>2</sub> H <sub>3</sub> ClO <sub>3</sub>   | T, N     | 25-34-50          | 23-37-45-61             |
| Chlorkalk                 | CaCl <sub>2</sub> O <sub>2</sub>                 | O, C, N  | 8-22-31-34-50     | 22-26-36/37/39-43-45-61 |
| Chrom(III)-chlorid        | CrCl <sub>3</sub>                                | Xn       | 22                | 24/25                   |
| Chrom(III)-oxid           | Cr <sub>2</sub> O <sub>3</sub>                   |          |                   |                         |
| Citronensäure             | C <sub>6</sub> H <sub>8</sub> O <sub>7</sub>     | Xi       | 36                | 26                      |
| Cyclohexan                | C <sub>6</sub> H <sub>12</sub>                   | F, Xn, N | 11-38-50/53-65-67 | 9-16-25-33-60-61-62     |

| Stoffbezeichnung                         | Formel                 |      | R-Sätze           | S-Sätze           |
|--|------------------------|------|-------------------|-------------------|
| Diastase (siehe Amylase)                 |                        |      |                   |                   |
| 1,2-Dihydroxybenzol (Brenzkatechin)      | $C_6H_4(OH)_2$         | Xn   | 21/22-36/38       | 22-26-37          |
| 1,3-Dihydroxybenzol (Resorcin)           | $C_6H_4(OH)_2$         | Xn,N | 22-36/38-50       | 26-61             |
| <i>1,4-Dihydroxybenzol</i> (Hydrochinon) | $C_6H_4(OH)_2$         | Xn,N | 22-40-41-43-50-68 | 26-36/37/39-61    |
| Diphenylamin                             | $C_{12}H_{11}N$        | T,N  | 23/24/25-33-50-63 | 28-36/37-45-60-61 |
| Dodecan-1-ol                             | $C_{12}H_{25}OH$       | Xi,N | 36/38-50/53       | 26/29-37/39-61    |
| Dodecylsulfat-Natriumsalz                |                        | Xn   | 22-36/38          | 26                |
| Eisen (feines Pulver)                    | Fe                     | F    | 11                | 16-33-36/37       |
| Eisen (Wolle)                            | Fe                     |      |                   |                   |
| Eisen(II)-chlorid                        | $FeCl_2$               | Xn   | 22-38-41          | 26-39             |
| Eisen(II)-sulfat                         | $FeSO_4$               | Xn   | 22-36/38          | 46                |
| Eisen(II)-sulfid                         | FeS                    | N    | 31-50             | 60-61             |
| Eisen(III)-chlorid                       | $FeCl_3$               | Xn   | 22-38-41          | 26-39             |
| Eisen(III)-oxid                          | $Fe_2O_3$              |      |                   |                   |
| Eisen(III)-phosphat                      | $FePO_4$               |      |                   |                   |
| Eosin                                    | $C_{20}H_6Br_4Na_2O_5$ | Xi   | 36                | 22-26             |

| Stoffbezeichnung          | Formel  |      | R-Sätze           | S-Sätze              |
|---------------------------|---|------|-------------------|----------------------|
| Essigsäure                | CH <sub>3</sub> COOH  | C    | 10-35             | 23-26-45             |
| Essigsäureanhydrid        | (CH <sub>3</sub> CO) <sub>2</sub> O                           | C    | 10-20/22-34       | 26-36/37/39-45       |
| Essigsäureethylester      | CH <sub>3</sub> CO <sub>2</sub> C <sub>2</sub> H <sub>5</sub> | F,Xi | 11-36-66-67       | 16-26-33             |
| Ethan                     | C <sub>2</sub> H <sub>6</sub>                                 | F+   | 12                | 9-16-33              |
| Ethandiol (Glycol)        | C <sub>2</sub> H <sub>4</sub> (OH) <sub>2</sub>               | Xn   | 22                |                      |
| Ethanol (Brennspiritus)   | C <sub>2</sub> H <sub>5</sub> OH                              | F    | 11                | 7-16                 |
| Ethen                     | C <sub>2</sub> H <sub>4</sub>                                 | F+   | 12                | 9-16-33              |
| Fehling-Lösung I          |   | Xn,N | 22-36/38-50/53    | 22-60-61             |
| Fehling-Lösung II         |   | C    | 35                | 26-37/39-45          |
| Fluorescein               |   |      |                   |                      |
| <i>Formaldehyd-Lösung</i> | H <sub>2</sub> CHO  | T    | 23/24/25-34-40-43 | 26-36/37/39-37-45-51 |
| Fructose, D(-)            | C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>                 |      |                   |                      |
| Fuchsin                   |   | Xn   | 40                | 36/37                |
| Gelatine                  |   |      |                   |                      |
| Glaswolle                 |   |      |                   |                      |
| Glucose, D(+)             | C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>                 |      |                   |                      |

| Stoffbezeichnung                 | Formel             |        | R-Sätze                    | S-Sätze                |
|----------------------------------|--------------------|--------|----------------------------|------------------------|
| Glycerin                         | $C_3H_6(OH)_3$     |        |                            |                        |
| Glycin                           |                    |        |                            |                        |
| Harnstoff                        | $(NH_2)_2CO$       |        |                            |                        |
| Hexamethyldiamin                 | $NH_2(CH_2)_6NH_2$ | C      | 21/22-34-37                | 22-26-36/37/39-45      |
| Hexan                            | $C_6H_{14}$        | F,Xn,N | 11-38-48/20-51/53-62-65-67 | 9-16-29-33-36/37-61-62 |
| Indigo                           |                    |        |                            |                        |
| Indigocarmin                     |                    |        |                            |                        |
| Iod                              | $I_2$              | Xn,N   | 20/21-50                   | 23-25-61               |
| Kalilauge (siehe Kaliumhydroxid) |                    |        |                            |                        |
| Kaliumaluminiumsulfat            | $AlK(SO_4)_2$      |        |                            |                        |
| Kaliumbromid                     | KBr                |        |                            |                        |
| Kaliumcarbonat                   | $K_2CO_3$          | Xi     | 36/37/38                   | 22-26                  |
| Kaliumchlorid                    | KCl                |        |                            |                        |
| Kaliumdisulfid                   | $K_2S_2O_5$        | Xi     | 31-37-41                   | 26-39                  |
| Kaliumhexacyanoferrat(II)        | $K_4[Fe(CN)_6]$    |        | 52/53                      | 50-61                  |
| Kaliumhexacyanoferrat(III)       | $K_3[Fe(CN)_6]$    |        |                            |                        |



| Stoffbezeichnung      | Formel                           |        | R-Sätze           | S-Sätze        |
|-----------------------|----------------------------------|--------|-------------------|----------------|
| Kaliumhydrogensulfat  | $\text{KHSO}_4$                  | C      | 34-37             | 26-36/37/39-45 |
| Kaliumhydrogentartrat |                                  |        |                   |                |
| Kaliumhydroxid        | $\text{KOH}$                     | C      | 22-35             | 26-36/37/39-45 |
| Kaliumiodat           | $\text{KIO}_3$                   | O      | 8                 | 17             |
| Kaliumiodid           | $\text{KI}$                      |        |                   |                |
| Kaliumnitrat          | $\text{KNO}_3$                   | O      | 8                 | 16-41          |
| Kaliumnitrit          | $\text{KNO}_2$                   | O,T,N  | 8-25-50           | 45-61          |
| Kaliumpermanganat     | $\text{KMnO}_4$                  | O,Xn,N | 8-22-50/53        | 60-61          |
| Kaliumperoxodisulfat  | $\text{K}_2\text{S}_2\text{O}_8$ | O,Xn   | 8-22-36/38-42/43  | 22-24-26-37    |
| Kaliumsulfat          | $\text{K}_2\text{SO}_4$          |        |                   |                |
| Kaliumsulfid          | $\text{K}_2\text{S}$             | C,N    | 31-34-50          | 26-45-61       |
| Kaliumthiocyanat      | $\text{KSCN}$                    | Xn     | 20/21/22-32-52/53 | 13-36/37-46-61 |
| Kieselgel             |                                  |        | 22                |                |
| Kieselgur             |                                  | Xn     | 48/20             | 22             |
| Kohlenstoff           | $\text{C}$                       |        |                   |                |
| Kupfer                | $\text{Cu}$                      |        |                   |                |

| Stoffbezeichnung              | Formel  |      | R-Sätze        | S-Sätze  |
|-------------------------------|---|------|----------------|----------|
| Kupfer(I)-chlorid             | CuCl  | Xn,N | 22-50/53       | 22-60-61 |
| Kupfer(I)-oxid                | Cu <sub>2</sub> O                               | Xn,N | 22-50/53       | 2260-61  |
| Kupfer(II)-acetat             | Cu(CH <sub>3</sub> COO) <sub>2</sub>            | Xn   | 22             | 36       |
| Kupfer(II)-carbonat (basisch) | CuCO <sub>3</sub>                               | Xn   | 20/22          | 20       |
| Kupfer(II)-chlorid            | CuCl <sub>2</sub>                               | Xn,N | 22-36/38-50/53 | 22-26-61 |
| Kupfer(II)-nitrat             | Cu(NO <sub>3</sub> ) <sub>2</sub>               | O,Xn | 8-22-36/38     | 17-24/26 |
| Kupfer(II)-oxid               | CuO   | Xn,N | 22-50/53       | 22-61    |
| Kupfer(II)-sulfat             | CuSO <sub>4</sub>                               | Xn,N | 22-36/38-50/53 | 22-60-61 |
| Lackmus                       |   |      |                |          |
| Lactose, D(+)                 | C <sub>12</sub> H <sub>22</sub> O <sub>11</sub> |      |                |          |
| Leinöl                        |   |      |                |          |
| Lithium                       | Li  | F,C  | 14/15-34       | 8-43-45  |
| Lithiumchlorid                | LiCl  | Xn   | 22-36/38       |          |
| Luminol                       |   | Xi   | 36/37/38       | 26-37/38 |
| Magnesium                     | Mg  | F    | 11-15          | 7/8-43   |
| Magnesiumchlorid              | MgCl <sub>2</sub>                               | Xi   | 36/37          |          |

| Stoffbezeichnung                     | Formel                  |      | R-Sätze        | S-Sätze              |
|--------------------------------------|-------------------------|------|----------------|----------------------|
| Magnesiumnitrat                      | $Mg(NO_3)_2$            | O    | 8              | 24/25                |
| Malachitgrün                         |                         | Xn,N | 22-41-50/53-63 | 26-36/37-39-46-60-61 |
| Maltose, D(+)                        | $C_{12}H_{22}O_{11}$    |      |                |                      |
| Mangan(II)-sulfat                    | $MnSO_4$                | Xn,N | 48/20/22-51/53 | 22-61                |
| Mangan(IV)-oxid (Braunstein)         | $MnO_2$                 | Xn   | 20/22          | 25                   |
| Methan                               | $CH_4$                  | F+   | 12             | 9-16-33              |
| Methanol                             | $CH_3OH$                | F,T  | 11-23/24/25-39 | 7-16-36/37-45        |
| Methylamin                           | $H_3CNH_2$              | T    | 23/24/26       | 28-37-45             |
| 3-Methylbutan-1-ol (iso-Amylalkohol) | $C_5H_{12}O$            | F,Xn | 11-20          | 9-16-24/25           |
| Methylenblau                         | $C_{16}H_{18}ClN_3S$    | Xn   | 22             |                      |
| Methylorange                         | $C_{14}H_{14}N_3NaO_3S$ | T    | 25             | 37-45                |
| 2-Methylpropan-2-ol (tert-Butanol)   | $C_4H_{10}O$            | F,Xn | 11-20          | 9-16                 |
| Methylrot                            |                         |      |                |                      |
| Milchsäure                           |                         | Xi   | 38-41          | 26-39                |
| Naphthalin                           | $C_{10}H_8$             | Xn,N | 22-50/53       | 36/37-60-61          |
| 2-Naphthol                           | $C_{10}H_8O$            | Xn,N | 20/22-50       | 24/25-61             |

| Stoffbezeichnung                 | Formel  | R-Sätze |             | S-Sätze      |
|----------------------------------|---|---------|-------------|--------------|
| Natriumacetat                    | CH <sub>3</sub> COONa                         |         |             |              |
| Natriumammoniumhydrogenphosphat  | Na(NH <sub>4</sub> )HPO <sub>4</sub>          |         |             |              |
| Natriumbromid                    | NaBr  |         |             |              |
| Natriumcarbonat (Soda)           | Na <sub>2</sub> CO <sub>3</sub>               | Xi      | 36          | 22-26        |
| Natriumchlorid                   | NaCl  |         |             |              |
| Natriumdihydrogenphosphat        | NaH <sub>2</sub> PO <sub>4</sub>              |         |             |              |
| Natriumdithionit                 | Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub> | Xn      | 7-22-31     | 7/8-26-28-43 |
| Natriumfluorid                   | NaF   | T       | 25-32-36/38 | 22-36-45     |
| Natriumhydrogencarbonat (Natron) | NaHCO <sub>3</sub>                            |         |             |              |
| Natriumhydrogenphosphat          | Na <sub>2</sub> HPO <sub>4</sub>              |         |             |              |
| Natriumhydrogensulfat            | NaHSO <sub>4</sub>                            | Xi      | 41          | 24-26        |
| Natriumhydrogensulfid            | NaHSO <sub>3</sub>                            | Xn      | 22-31       | 25-46        |
| Natriumhydroxid                  | NaOH  | C       | 35          | 26-37/39-45  |
| Natriumiodid                     | NaI   | N       | 50          | 61           |
| Natriumnitrat                    | NaNO <sub>3</sub>                             | O,Xn    | 8-22        | 22-41        |
| Natriumnitrit                    | NaNO <sub>2</sub>                             | O,T,N   | 8-25-50     | 45-61        |

| Stoffbezeichnung                    | Formel                             |       | R-Sätze        | S-Sätze          |
|-------------------------------------|------------------------------------|-------|----------------|------------------|
| Natriumoxalat                       | $\text{Na}_2\text{C}_2\text{O}_4$  | Xn    | 21/22          | 24/25            |
| Natriumperchlorat                   | $\text{NaClO}_4$                   | O,Xn  | 9-22           | 13-22-27         |
| Natriumperoxid                      | $\text{Na}_2\text{O}_2$            | O,C   | 8-35           | 8-27-39-45       |
| Natriumphosphat                     | $\text{Na}_3\text{PO}_4$           | Xi    | 36/37/38       | 26               |
| Natriumsalicylat                    |                                    | Xn    | 22-26          | 24/26            |
| Natriumsilikat                      | $\text{Na}_2\text{O}_7\text{Si}_3$ | Xi    | 36/37/38       | 26               |
| Natriumsulfat                       | $\text{Na}_2\text{SO}_4$           |       |                |                  |
| Natriumsulfid                       | $\text{Na}_2\text{S}$              | T,C,N | 22-24-31-34-50 | 26-45-36/3739-61 |
| Natriumsulfit                       | $\text{Na}_2\text{SO}_3$           |       |                |                  |
| Natriumtetraborat (Borax)           | $\text{Na}_2\text{B}_4\text{O}_7$  | T     | 60-61          |                  |
| Natriumthiosulfat                   | $\text{Na}_2\text{S}_2\text{O}_3$  |       |                |                  |
| Natronkalk                          |                                    | C     | 35             | 26-27-37/39      |
| Natronlauge (siehe Natriumhydroxid) | $\text{NaOH}$                      |       |                |                  |
| Neutralrot                          |                                    |       |                |                  |
| Ölsäure                             |                                    |       |                |                  |
| Oxalsäure                           | $\text{HOOC}\text{COOH}$           | Xn    | 21/22          | 24/25            |

| Stoffbezeichnung       | Formel                                       |        | R-Sätze                    | S-Sätze                 |
|------------------------|--|--------|----------------------------|-------------------------|
| Palladium(II)-chlorid  | PdCl <sub>2</sub>                            | Xi     | 37/38-41-43                | 26-36/37/39             |
| Palmitinsäure          |  |        |                            |                         |
| Paraffin               |  |        |                            |                         |
| Paraformaldehyd        | (CH <sub>2</sub> O) <sub>n</sub>             | Xn     | 20/22-36/37/38-40/43       | 22-26-36/37             |
| Paraldehyd             |  |        | 10                         | 29                      |
| Pepsin                 |  | Xi     | 36/37/38-42                | 22-24-26-36/37          |
| Perchlorsäure          | HClO <sub>4</sub>                            | O,C    | 5-8-35                     | 23-26-36-45             |
| Petrolether            |  | F,Xn,N | 11-38-48/20-51/53-62-65-67 | 16-23-24-33-36/37-61-62 |
| Phenolphthalein        |  |        |                            |                         |
| Phenolphthalein-Lösung |  | F      | 11                         | 7-16                    |
| Phloroglucin           | C <sub>6</sub> H <sub>6</sub> O <sub>3</sub> | Xi     | 36/37/38                   |                         |
| Phosphorsäure          | H <sub>3</sub> PO <sub>4</sub>               | C      | 34                         | 26-45                   |
| Phthalsäure            | C <sub>8</sub> H <sub>n</sub> O <sub>4</sub> | Xi     | 36/37/38                   | 26-37/39                |
| Phthalsäureanhydrid    | C <sub>8</sub> H <sub>4</sub> O <sub>3</sub> | Xn     | 22-37/38-41-42/43          | 23-24/25-26-37/39-46    |
| Propan-1-ol            | C <sub>3</sub> H <sub>7</sub> OH             | F,Xi   | 11-41-67                   | 7-16-24-26-39           |
| Propan-2-ol            | C <sub>3</sub> H <sub>7</sub> OH             | F,Xi   | 11-36-67                   | 7-16-24/25-26           |

| Stoffbezeichnung                    | Formel               |       | R-Sätze           | S-Sätze              |
|-------------------------------------|----------------------|-------|-------------------|----------------------|
| Propionsäure (Propansäure)          | $C_2H_5COOH$         | C     | 34                | 23-36-45             |
| Pyrogallol (1,2,3-Trihydroxybenzol) | $C_6H_6O_3$          | Xn    | 20/21/22-52/53-68 | 36/37-61             |
| Quecksilber(II)-sulfid              | $HgS$                |       |                   |                      |
| Saccharose                          | $C_{12}H_{22}O_{11}$ |       |                   |                      |
| Salicylsäure                        | $C_7H_6O_3$          | Xn    | 22-61             | 22-24-26-39          |
| Salpetersäure                       | $HNO_3$              | O,C   | 8-35              | 23-26-36-45          |
| Salzsäure (verdünnt)                | $HCl$                | Xi    | 36/37/38          | 28                   |
| Salzsäure (konzentriert)            | $HCl$                | C     | 34-37             | 26-45                |
| Schiffsche Lösung                   |                      | Xi    | 36/37/38          | 26-36                |
| Schwefel                            | $S_8$                | Xi    | 38                | 46                   |
| Schwefelsäure (verdünnt)            | $H_2SO_4$            | Xi    | 36/38             | 26                   |
| Schwefelsäure (konzentriert)        | $H_2SO_4$            | C     | 35                | 26-36/37/38-45       |
| Sebacinsäurechlorid                 | $C_{10}H_{17}ClO_2$  | C     | 22-34             | 26-36/37/39-45       |
| Seifenlösung                        |                      |       | 10                | 23-24/25             |
| Silber                              | $Ag$                 |       |                   |                      |
| Silbernitrat                        | $AgNO_3$             | O,C,N | 8-34-50/53        | 26-36/37/39-45-60-61 |

| Stoffbezeichnung    | Formel  |       | R-Sätze                       | S-Sätze        |
|---------------------|---|-------|-------------------------------|----------------|
| Silbernitrat-Lösung | AgNO <sub>3</sub>   | Xi    | 36/38                         | 26-28          |
| Siliciumdioxid      | SiO <sub>2</sub>  |       |                               |                |
| Silikonöl           |   |       |                               |                |
| Stärke              | (C <sub>6</sub> H <sub>10</sub> O <sub>5</sub> ) <sub>n</sub> |       |                               |                |
| Stearinsäure        |   |       |                               |                |
| Strontiumchlorid    | SrCl <sub>2</sub>   |       |                               |                |
| Strontiumnitrat     | Sr(NO <sub>3</sub> ) <sub>2</sub>                             | O, Xi | 8                             | 17-26          |
| Sulfanilsäure       | C <sub>6</sub> H <sub>7</sub> NO <sub>3</sub> S               | Xi    | 36/38-43                      | 24-37          |
| Tannin              |   |       |                               |                |
| Terpentinöl         |   | Xn, N | 10-20/21/22-36/38-43-51/53-65 | 36/37-46-61-62 |
| Thioharnstoff       | (NH <sub>2</sub> ) <sub>2</sub> CS                            | Xn, N | 22-40-50/53-63                | 36/37-61       |
| Thymolblau          |   |       |                               |                |
| Toluol              | C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>                 | F, Xn | 11-58-48/20-63-65-67          | 36/37-62       |
| Triphenylmethanol   |   |       |                               |                |
| Urease              |   |       |                               |                |
| Wasserstoff         | H <sub>2</sub>  | F+    | 12                            | 9-16-33        |



| Stoffbezeichnung   | Formel  |      | R-Sätze        | S-Sätze              |
|--------------------|---|------|----------------|----------------------|
| Wasserstoffperoxid | H <sub>2</sub> O <sub>2</sub>                                 | O,C  | 5-8-20/22-35   | 17-26-28-36/37/39-45 |
| Weinsäure, L(+)    | C <sub>4</sub> H <sub>6</sub> O <sub>6</sub>                  | Xi   | 36             | 24/25                |
| Wismut(III)-nitrat | Bi(NO <sub>3</sub> ) <sub>3</sub>                             | O,Xi | 8-36/38        | 26-37                |
| Woodsche Legierung |   | Xn   | 20/22-33       | 13-20/21             |
| Xylol              | C <sub>6</sub> H <sub>4</sub> (CH <sub>3</sub> ) <sub>2</sub> | Xn   | 10-20/21-38    | 25                   |
| Zellulose          |   |      |                |                      |
| Zink               | Zn  | F,N  | 15-17-50/53    | 43-44-60-61          |
| Zinkchlorid        | ZnCl <sub>2</sub>   | C,N  | 36/37/38       | 26-36-45-60-61       |
| Zinkiodid          | ZnI <sub>2</sub>  | Xi   | 36/38          |                      |
| Zinkoxid           | ZnO   | N    | 50/53          | 60-61                |
| Zinksulfat         | ZnSO <sub>4</sub>   | Xn,N | 22-41-50/53    | 22-26-39-46-60-61    |
| Zinn               | Sn  |      |                |                      |
| Zinn(II)-chlorid   | SnCl <sub>2</sub>   | Xn   | 22-36/37/38-43 | 24-26-37             |
| Zinn(II)-sulfat    | SnSO <sub>4</sub>   | Xn,N | 22-41-50/53    | 22-26-39-46-60-61    |