


Table E.12 Les constantes de solubilité de produits dans l'eau à 25 °C

| Bromates | | Hydroxydes | |
|----------------------------------|------------------------|---|------------------------|
| AgBrO ₃ | $5,38 \times 10^{-5}$ | Be(OH) ₂ | $6,92 \times 10^{-22}$ |
| TlBrO ₃ | $1,10 \times 10^{-4}$ | Cd(OH) ₂ | $7,2 \times 10^{-15}$ |
| Bromures | | Ca(OH) ₂ | $5,02 \times 10^{-6}$ |
| AgBr | $5,35 \times 10^{-13}$ | Co(OH) ₂ | $5,92 \times 10^{-15}$ |
| CuBr | $6,27 \times 10^{-9}$ | Eu(OH) ₃ | $9,38 \times 10^{-27}$ |
| PbBr ₂ | $6,60 \times 10^{-6}$ | Fe(OH) ₂ | $4,87 \times 10^{-17}$ |
| Carbonates | | Fe(OH) ₃ | $2,79 \times 10^{-39}$ |
| Ag ₂ CO ₃ | $8,46 \times 10^{-12}$ | Pb(OH) ₂ | $1,43 \times 10^{-20}$ |
| BaCO ₃ | $2,58 \times 10^{-9}$ | Mg(OH) ₂ | $5,61 \times 10^{-12}$ |
| CaCO ₃ | $3,36 \times 10^{-9}$ | Ni(OH) ₂ | $5,48 \times 10^{-16}$ |
| MgCO ₃ | $6,82 \times 10^{-6}$ | Sn(OH) ₂ | $5,45 \times 10^{-27}$ |
| PbCO ₃ | $7,40 \times 10^{-14}$ | Zn(OH) ₂ | 3×10^{-17} |
| Chlorures | | Iodates | |
| AgCl | $1,77 \times 10^{-10}$ | Ba(IO ₃) ₂ | $4,01 \times 10^{-9}$ |
| CuCl | $1,72 \times 10^{-9}$ | Ca(IO ₃) ₂ | $6,47 \times 10^{-6}$ |
| Chromates | | Sr(IO ₃) ₂ | $1,14 \times 10^{-7}$ |
| Ag ₂ CrO ₄ | $1,12 \times 10^{-12}$ | Y(IO ₃) ₃ | $1,12 \times 10^{-10}$ |
| BaCrO ₄ | $1,12 \times 10^{-10}$ | Iodures | |
| PbCrO ₄ | $2,3 \times 10^{-13}$ | CuI | $1,27 \times 10^{-12}$ |
| Cyanures | | PbI ₂ | $9,8 \times 10^{-9}$ |
| AgCN | $5,97 \times 10^{-17}$ | AgI | $8,52 \times 10^{-17}$ |
| CuCN | $3,47 \times 10^{-20}$ | Phosphates | |
| Fluorures | | AlPO ₄ | $9,84 \times 10^{-21}$ |
| BaF ₂ | $1,84 \times 10^{-7}$ | Ca ₃ (PO ₄) ₂ | $2,07 \times 10^{-33}$ |
| CdF ₂ | $6,44 \times 10^{-3}$ | Co ₃ (PO ₄) ₂ | $2,05 \times 10^{-35}$ |
| CaF ₂ | $3,45 \times 10^{-11}$ | Cu ₃ (PO ₄) ₂ | $1,40 \times 10^{-37}$ |
| FeF ₂ | $2,36 \times 10^{-6}$ | Ni ₃ (PO ₄) ₂ | $4,74 \times 10^{-32}$ |
| | | Sulfates | |
| | | BaSO ₄ | $1,08 \times 10^{-10}$ |
| | | CaSO ₄ | $4,93 \times 10^{-5}$ |
| | | Hg ₂ SO ₄ | $6,5 \times 10^{-7}$ |
| | | Thiocyanates | |
| | | CuSCN | $1,08 \times 10^{-13}$ |
| | | Pd(SCN) ₂ | $4,39 \times 10^{-23}$ |

Tableau 15.2 Prédiction qualitative de la solubilité dans l'eau.

| IONS POSITIFS (cations) | | | | | | | | | | IONS NÉGATIFS (anions) | | | |
|---|--------------------------------------|------------------|------------------|------------------|------------------|--|-----------------|------------------|---|----------------------------------|-------------------------------|--------------------------------|-------------------------------|
| Li ⁺ Na ⁺ K ⁺ Rb ⁺ Cs ⁺ Fr ⁺ H ⁺ NH ₄ ⁺ | | | | | | Éléments de transition et Ga ³⁺ Ge ⁺ Bi ³⁺ As ³⁺ As ⁵⁺ In ³⁺ Sn ²⁺ Sn ⁴⁺ Al ³⁺ | Ti ⁺ | Pb ²⁺ | Ag ⁺ Cu ⁺ Hg ₂ ²⁺ | | | | |
| | Be ²⁺ Mg ²⁺ | Ca ²⁺ | Ba ²⁺ | Sr ²⁺ | Ra ²⁺ | | | | | | | | |
| | | | | | | | | | | CH ₃ COO ⁻ | NO ₃ ⁻ | ClO ₃ ⁻ | |
| | | | | | | | | | | | SO ₄ ²⁻ | | |
| | | | | | | | | | | | SO ₃ ²⁻ | PO ₄ ³⁻ | CO ₃ ²⁻ |
| | | | | | | | | | | | S ²⁻ | | |
| | | | | | | | | | | | OH ⁻ | | |
| | | | | | | | | | | | Cl ⁻ | Br ⁻ | I ⁻ |
| | | | | | | | | | | | | CrO ₄ ²⁻ | |

 peu soluble à 25°C.