

**Table 2.2** The determination of oxidation number\*

	Oxidation number
1	The sum of the oxidation numbers of all the atoms in the species is equal to its total charge
2	For atoms in their elemental form 0
3.	For atoms of Group 1 + 1 For atoms of Group 2 + 2 For atoms of Group 13/III (except B) + 3 ( $EX_3$ ), + 1 (EX) For atoms of Group 14/IV (except C, Si) + 4 ( $EX_4$ ), + 2 ( $EX_2$ )
4.	For hydrogen + 1 in combination with nonmetals - 1 in combination with metals
5.	For fluorine - 1 in all its compounds
6.	For oxygen - 2 unless combined with F - 1 in peroxides ( $O_2^{2-}$ ) - $\frac{1}{2}$ in superoxides ( $O_2^-$ ) - $\frac{2}{3}$ in ozonides ( $O_3^-$ )
7	Halogens - 1 in most compounds, unless the other elements include oxygen or more electronegative halogens

\*To determine an oxidation number, work through the following rules in the order given. Stop as soon as the oxidation number has been assigned.

These rules are not exhaustive, but they are applicable to a wide range of common compounds.