|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Non-ring increments** | | **Ring increments** | | **Halogen increments** | |
| -CH3 | [CH3;A;X4;!R] | -CH2- | [CH2;A;X4;R] | -F | [F] |
| -CH2- | [CH2;A;X4;!R] | >CH- | [CH1;A;X4;R] | -Cl | [Cl] |
| >CH- | [CH1;A;X4;!R] | >C< | [CH0;A;X4;R] | -Br | [Br] |
| >C< | [CH0;A;X4;!R] | =CH- | [CH1;X3;R] | -I | [I] |
| =CH2 | [CH2;A;X3;!R] | =C< | [CH0;X3;R] |  |  |
| =CH- | [CH1;A;X3;!R] |  |  |  |  |
| =C< | [CH0;A;X3;!R] |  |  |  |  |
| =C= | **[$([CH0;A;X2;!R](=\*)=\*)]** |  |  |  |  |
| #CH | **[$([CH1;A;X2;!R]#\*)]** |  |  |  |  |
| #C- | **[$([CH0;A;X2;!R]#\*)]** |  |  |  |  |
| **Oxygen increments** | | **Nitrogen increments** | | **Sulfur increments** | |
| -OH (alcohol) | **[O;H1;$(O-!@[C;!$(C=!@[O,N,S])])]** | -NH2 | [NH2;X3] | -SH | [SH1] |
| -OH (phenol) | **[O;H1;$(O-!@c)]** | >NH (nonring) | [NH1;X3;!R] | -S- (nonring) | [SH0;!R] |
| -O- (nonring) | [OH0;X2;!R] | >NH (ring) | [NH1;X3;R] | -S- (ring) | [SH0;R] |
| -O- (ring) | [OH0;X2;R] | >N- (nonring) | [NH0;X3;!R] |  |  |
| >C=O (nonring) | [CH0;A;X3;!R]=O | -N= (nonring) | [NH0;X2;!R] |  |  |
| >C=O (ring) | [CH0;A;X3;R]=O | -N= (ring) | [NH0;X2;R] |  |  |
| O#CH- (aldehyde) | **[CH;D2;$(C-!@C)](=O)** | =NH | [NH1;X2] |  |  |
| -COOH (acid) | **[$(C-!@[A;!O])](=O)([O;H,-])** | -CN | C#N |  |  |
| -COO- (ester) | C(=O)[OH0] | -NO2 | N(=O)=O |  |  |
| =O  (except as above) | [OX1] |  |  |  |  |