

Fe[NO]<sub>3</sub>Cl*hP16*(186) *P6<sub>3</sub>mc* – *c*<sup>2</sup>*b*<sup>2</sup>**Fe(NO)<sub>3</sub>Cl** [1]

Structural features: Fe(NO)<sub>3</sub>Cl tetrahedral units (a central Fe(N<sub>3</sub>Cl) tetrahedron, approximately linear Fe-N=O segments) in a Mg-type (h.c.p.) arrangement.

Hayton T.W. et al. (2003) [1]

ClFeN<sub>3</sub>O<sub>3</sub>*a* = 0.71701, *c* = 0.60403 nm, *c/a* = 0.842, *V* = 0.2689 nm<sup>3</sup>, *Z* = 2

| site | Wyck.      | sym.         | <i>x</i>                    | <i>y</i>                    | <i>z</i> | occ. | atomic environment                   |
|------|------------|--------------|-----------------------------|-----------------------------|----------|------|--------------------------------------|
| N1   | 6 <i>c</i> | . <i>m</i> . | 0.7934                      | 0.2065                      | 0.39293  |      | single atom O                        |
| O2   | 6 <i>c</i> | . <i>m</i> . | 0.8637                      | 0.1363                      | 0.26823  |      | single atom N                        |
| Fe3  | 2 <i>b</i> | 3 <i>m</i> . | <sup>1</sup> / <sub>3</sub> | <sup>2</sup> / <sub>3</sub> | 0.0      |      | non-coplanar triangle N <sub>3</sub> |
| Cl4  | 2 <i>b</i> | 3 <i>m</i> . | <sup>1</sup> / <sub>3</sub> | <sup>2</sup> / <sub>3</sub> | 0.37273  |      | single atom Fe                       |

Transformation from published data: origin shift 0 0 0.78987

Experimental: single crystal, diffractometer, X-rays, R = 0.024, T = 173 K

References: [1] Hayton T.W., McNeil W.S., Patrick B.O., Legzdins P. (2003), J. Am. Chem. Soc. 125, 12935-12944.