



>>Entry Name: Fluorine nitrate, 11Cl

Synonym(s): Nitroxy fluoride. Nitryl hypofluorite. Nitrogen trioxyfluoride

CAS Registry Number: 7789-26-6

FONO₂

Molecular Formula: FNO₃

Molecular Weight: 81.003

Accurate Mass: 80.986222

Percentage Composition: F 23.45%; N 17.29%; O 59.25%

General Statement: Interatomic distances: F-O 142, FO-N 139, N-O 129 pm

Source/Synthesis: Synth. from HNO₃ + F₂

Use/Importance: Powerful oxidising agent

Physical Description: Colourless gas, with acrid odour. Hydrol. to OF₂, O₂, HF and HNO₃

Melting Point: Mp -175°

Boiling Point: Bp -45.9°

Solubility: Sol. Me₂CO

Density: d^{-45.9} 1.507

Hazard & Toxicity: Toxic. Powerful irritant. Explodes when shaken or with org. solvs. Dangerous fire hazard

References:

Kemmitt, R.D.W. *et al.*, *Adv. Fluorine Chem.*, 1965, **4**, 142, (*rev*)

Woolf, C., *Adv. Fluorine Chem.*, 1965, **5**, 1, (*rev*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **1**, 204, (*synth*)

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, NMU000