



>>Entry Name: Nitrogen oxide (NO₂)

Synonym(s): Nitrogen dioxide

CAS Registry Number: 10102-44-0

NO₂ (C_{2v})

Molecular Formula: NO₂

Molecular Weight: 46.005

Accurate Mass: 45.992904

Percentage Composition: N 30.45%; O 69.55%

Source/Synthesis: Formed e.g. by heating Pb(NO₃)₂

Use/Importance: Intermed. in HNO₃ formation. Oxidises alkyl methyl ethers to carbonyl compds. in the presence of H₂O

Physical Description: Brown gas. Reacts with H₂O giving HNO₃ + NO

Other Data: Paramagnetic

Hazard & Toxicity: Highly toxic

Aldrich: 29558-2

>>Derivative: Dimer

References:

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1690A, (*ir*)

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Brand, J.C.D. *et al.*, *J. Mol. Spectrosc.*, 1975, **56**, 309, (*struct*)

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