>>**Entry Name: Acetyl nitrate**

CAS Registry Number: 591-09-3
$H_3CCOONO_2$

Molecular Formula: $C_2H_3NO_4$
Molecular Weight: 105.05
Accurate Mass: 105.006209
Percentage Composition: C 22.87%; H 2.88%; N 13.33%; O 60.92%
Use/Importance: Powerful nitrating agent with selective action
Physical Description: Hygroscopic fuming liq.
Boiling Point: Bp_{70} 22°
Density: d^{15} 1.24
Hazard & Toxicity: Explodes violently if suddenly heated. Sensitive to shock. Corrosive to the eye and other tissues

References:

Pictet, A. *et al.*, *Ber.*, 1907, **40**, 1164, *(synth)*
Konig, W., *Angew. Chem.*, 1955, **67**, 157, *(haz)*
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Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials, 8th edn., Van Nostrand Reinhold*, 1992, ACS750
Bretherick, L., *Handbook of Reactive Chemical Hazards, 4th edn., Butterworths*, 1990, 0717
Luxon, S.G., *Hazards in the Chemical Laboratory, 5th edn., Royal Society of Chemistry*, 1992, 15