>>**Entry Name: Barium nitrite ($Ba(NO_2)_2$)**
Synonym(s): Nitrous acid, barium salt, 8CI

CAS Registry Number: 13465-94-6
Related CAS Registry Numbers(s): 115216-77-8
$Ba(NO_2)_2$

Molecular Formula: BaN_2O_4
Molecular Weight: 229.338
Accurate Mass: 229.89104
Percentage Composition: Ba 59.88%; N 12.21%; O 27.91%
Source/Synthesis: Cryst. from aq. soln. affords the hydrate which is fully dehydrated at 182°
Use/Importance: Reagent for converting metal sulfates to nitrites. Component of pyrotechnic compositions; oxidiser and colourant
Physical Description: Colourless hexagonal cryst. Dec. on heating with intermed. formation of $Ba(NO_3)_2$ and final formation of BaO. Pyroelectric
Melting Point: Mp 243°
Solubility: V. sol. H_2O (67 g per 100 cm^3 at 20°; 300 g per 100 cm^3 at 100°); mod. sol. EtOH; insol. Me_2CO
Hazard & Toxicity: Oxidiser, highly toxic

>>**Derivative:** Monohydrate

CAS Registry Number: 7787-38-4
Molecular Formula: $BaH_2N_2O_5$
Molecular Weight: 247.353
Accurate Mass: 247.901605
Percentage Composition: Ba 55.52%; H 0.81%; N 11.33%; O 32.34%
Source/Synthesis: Cryst. from aq. solns. of $Ba(NO_2)_2$
Use/Importance: Commercially available. Reagent for converting metal sulfates to metal nitrites; piezoelectric and pyroelectric
Physical Description: Pale yellow hexagonal cryst.; dec. on heating with H_2O loss (–H_2O at 182°). Undergoes sluggish reversible phase transition at 77°
Solubility: V. sol. H_2O (63 g per 100 cm^3 at 20°); mod. sol. EtOH; insol. Me_2CO
Hazard & Toxicity: Oxidiser, toxic
Fluka: 11790

References:

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