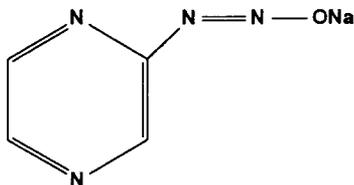


PYRAZINE DIAZOHYDROXIDE

NSC - 361456



Chemical Name:

N-Nitrosopyrazinamine, sodium salt

Other Names:

Sodium *N*-Nitrosopyrazinamine

CAS Registry Number: 103829-56-7

Molecular Formula: C₄H₃N₄ONa

M.W.:146.1

Approximate Solubility:

(mg/mL)

Water	> 9.3
Buffer, pH 4	> 15.2
Buffer, pH 9	> 12.8
Ethanol	7.2 - 14.4
Dimethylacetamide	> 17.4
DMSO	> 18.7
Chloroform	< 0.9
Ethyl acetate	< 0.7
t-Butanol	< 1.1

Stability:

Bulk:

The rate of degradation was variable, ranging from $\approx 14\%$ at room temperature in light conditions to $\approx 4\%$ under dark conditions. At $50\text{ }^\circ\text{C}$ under light conditions, degradation averaged $\approx 4\%$. There was no apparent degradation at $50\text{ }^\circ\text{C}$ in the dark.

Solution:

In reagent grade water, the $t_{1/2}$ was calculated to be ≈ 27.6 hr. In phosphate buffer at pH 7.32, $t_{1/2}$ was found to be 91 min. In borate buffer at pH 8.98, $t_{1/2}$ was found to be 53.8 hr.

Ultraviolet Absorption:

(methanol)

λ_{max}	ϵ
286 ± 5 nm	7748
254 ± 5 nm	4180

High Performance Liquid Chromatography:

Column: PRP-1 (Hamilton Co.), 260 x 4.2 mm, with a 30 x 4.6 mm i.d. (Brownlee) guard column.

Mobile Phase: 35% Methanol/65% 0.005M phosphoric acid (0.23 mL conc. acid in 650 mL water, adjusted to pH 10 with NaOH), containing 0.005 M tetrabutylammonium hydrogen sulfate in the mobile phase.

Flow Rate: 1.5 mL/min

Detection: UV at 254 nm

Sample Preparation: 0.5 mg/mL in Internal Standard Solution.

Internal Standard: 10mg/mL thymidine in methanol.

Retention Volume: 7.98 mL (NSC 361456)
3.05 mL (I.S.)