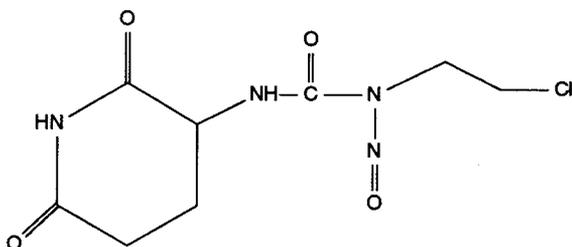


PCNU

NSC - 95466



**Chemical Name:** *N*-(2-Chloroethyl)-*N'*-(2,6-dioxo-3-piperidinyl)-*N*-nitrosourea

**CAS Registry Number:** 13909-02-9

**Molecular Formula:** C<sub>8</sub>H<sub>11</sub>ClN<sub>4</sub>O<sub>4</sub>

**M.W.:** 262.7

**Approximate Solubility:**

(mg/mL)

Water	< 1
Water pH 4	< 1
Water pH 9	2-3
10% EtOH	< 1
95% EtOH	2-3
MeOH	3-4
CHCl <sub>3</sub>	1-3
Acetone	12.5-15

## Stability:

### Bulk:

A sample stored at 60 °C for 10 days decomposed 18% (UV). The compound was found to be stable in bulk form at room temperature exposed to lab light through 60 days (UV, TLC and ionic chloride). For long-term storage the bulk compound should be protected from moisture and stored at -15 °C.

### Solution:

The compound dissolved in 3% methanol/ water decomposed 4% in one hour, 6.5% in three hours 15% in six hours, and 38% in 24 hours (UV). There was no formation of ionic chloride during the 24 hours. Solutions should be prepared immediately before use.

## High Performance Liquid Chromatography:

<b>Column:</b>	μBondapak C <sub>18</sub> , 300 x 3.9 mm i.d.
<b>Mobile Phase:</b>	CH <sub>3</sub> CN/1% HOAc (aq.), 15/85, v/v
<b>Flow Rate:</b>	2 mL/min
<b>Detection:</b>	UV at 254 nm
<b>Sample Preparation:</b>	0.45 mg/mL in internal standard solution.
<b>Internal Standard:</b>	Acetonitrile containing 0.04 μL acetophenone per mL as the internal standard/1% HOAc (aq), 50/50, (v/v).
<b>Retention Volume:</b>	11.0 mL (NSC - 95466) 23.0 mL (I.S.)

### Ultraviolet Absorption:

(3% Methanol/water)

$$\lambda_{\max} = 230 \pm 2\text{nm}$$

$$\epsilon = 6,052 - 6,270$$

### Toxicity Data:

Mouse(po): LD<sub>50</sub>: 35700  $\mu\text{g}/\text{kg}$

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Mouse(iv): LD<sub>50</sub>: 22 mg/kg

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Dog(iv): LD<sub>Lo</sub>: 3 mg/kg

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Monkey(iv): LD<sub>Lo</sub>: 10 mg/kg

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