Phenazepam
Item No. 9000849

CAS Registry No.: 51753-57-2
Formal Name: 7-bromo-5-(2-chlorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one
Synonyms: BD 98, Fenazepam
MF: C_{15}H_{10}BrClN_{2}O
FW: 349.6
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: \( \lambda_{\text{max}}: 230, 321 \text{ nm} \)

**Laboratory Procedures**

For long term storage, we suggest that phenazepam be stored as supplied at -20°C. It should be stable for at least two years.

Phenazepam is supplied as a crystalline solid. A stock solution may be made by dissolving the phenazepam in the solvent of choice. Phenazepam is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of phenazepam in these solvents is approximately 0.2 mg/ml in ethanol and approximately 12.5 mg/ml in DMSO and DMF.

Phenazepam is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, phenazepam should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Phenazepam has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

**Description**

Phenazepam is a benzodiazepine agonist of the GABA\text{A}-benzodiazepine receptor chloride channel complex.\(^1\) It has been shown to have strong anxiolytic, sedative, anticonvulsive, and hypnentic properties in humans, as well as in animal species when administered at 1 mg/kg.\(^2\) At very low doses (10\textsuperscript{-5} to 10\textsuperscript{-10} mg/kg), phenazepam has been shown to act as an anxioselective tranquilizer.\(^2\)\textsuperscript{-4}

**References**