

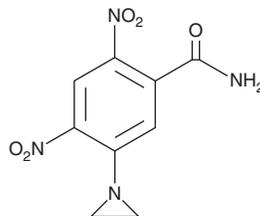
# PRODUCT INFORMATION



## CB-1954

Item No. 21023

**CAS Registry No.:** 21919-05-1  
**Formal Name:** 5-(1-aziridinyl)-2,4-dinitro-benzamide  
**Synonyms:** NSC 115829, Tretazicar  
**MF:** C<sub>9</sub>H<sub>8</sub>N<sub>4</sub>O<sub>5</sub>  
**FW:** 252.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 223, 269, 328 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

CB-1954 is supplied as a crystalline solid. A stock solution may be made by dissolving the CB-1954 in the solvent of choice, which should be purged with an inert gas. CB-1954 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CB-1954 in these solvents is approximately 20 mg/ml.

CB-1954 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CB-1954 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CB-1954 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

CB-1954 is a prodrug that is enzymatically activated to generate an antitumor agent that forms DNA-DNA interstrand crosslinks.<sup>1</sup> In rat Walker 256 carcinoma cells, CB-1954 is reduced by NAD(P)H:quinone oxidoreductase (NQO1) to the cytotoxic derivative 5-(aziridin-1-yl)-4-hydroxylamineo 2 nitrobenzamide, a bifunctional alkylating agent.<sup>1</sup>

### Reference

1. Knox, R.J., Jenkins, T.C., Hobbs, S.M., *et al.* Bioactivation of 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB 1954) by human NAD(P)H quinone oxidoreductase 2: A novel co-substrate-mediated antitumor prodrug therapy. *Cancer Res.* **60(15)**, 4179-4186 (2000).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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