

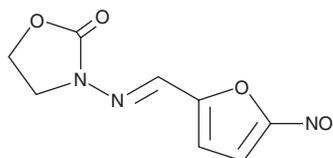
# PRODUCT INFORMATION



## Furazolidone

Item No. 34090

**CAS Registry No.:** 67-45-8  
**Formal Name:** 3-[[[5-nitro-2-furanyl)methylene]amino]-2-oxazolidinone  
**Synonyms:** Furoxone, NSC 6469, Nifulidone, Nitrofurazolidone, Nitrofuroxon, Tikofuran, Trifurox  
**MF:** C<sub>8</sub>H<sub>7</sub>N<sub>3</sub>O<sub>5</sub>  
**FW:** 225.2  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 261, 355 nm  
**Supplied as:** A 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

Furazolidone is supplied as a solid. A stock solution may be made by dissolving the furazolidone in the solvent of choice, which should be purged with an inert gas. Furazolidone is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of furazolidone in these solvents is approximately 1 mg/ml.

Furazolidone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, furazolidone should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Furazolidone has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Furazolidone is a nitrofuran antiprotozoal agent and antibacterial agent.<sup>1-3</sup> It is active against *G. lamblia* trophozoites (IC<sub>50</sub> = 2.9 μM), as well as metronidazole-susceptible and -resistant *T. vaginalis* clinical isolates with minimum lethal concentration (MLC) values of less than 3.1 μg/ml.<sup>1,2</sup> Furazolidone is also active against clinical isolates of *Salmonella*, *Shigella*, *E. coli*, and *V. parahaemolyticus* (MICs = ≤0.5-4 μg/ml).<sup>3</sup> *In vivo*, furazolidone (50 mg/kg per day) reduces splenic and hepatic parasite burden in a golden hamster model of *L. chagasi* infection.<sup>4</sup> Formulations containing furazolidone have been used in the treatment of bacterial and protozoal infections.

### References

1. Campanati, L. and Monteiro-Leal, L.H. The effects of the antiprotozoal drugs metronidazole and furazolidone on trophozoites of *Giardia lamblia* (P1 strain). *Parasitol Res.* **88(1)**, 80-85 (2002).
2. Narcisi, E.M. and Secor, W.E. *In vitro* effect of tinidazole and furazolidone on metronidazole-resistant *Trichomonas vaginalis*. *Antimicrob. Agents and Chemother.* **40(5)**, 1121-1125 (1996).
3. Carlson, J.R., Thornton, S.A., Dupont, H.L., et al. Comparative in vitro activities of ten antimicrobial agents against bacterial enteropathogens. *Antimicrob. Agents Chemother.* **24(4)**, 509-513 (1983).
4. Tempone, A.G., Mortara, R.A., de Andrade, H.F., Jr., et al. Therapeutic evaluation of free and liposome-loaded furazolidone in experimental visceral leishmaniasis. *Int. J. Antimicrob. Agents* **36(2)**, 159-163 (2010).

#### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM