



Product Information

Product ID H9614
CAS No. 58-93-5
Chemical Name 6-chloro-1,1-dioxo-3,4-dihydro-2H-benzo[e][1,2,4]thiadiazine-7-sulfonamide

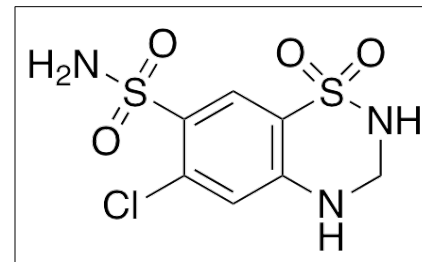
Synonym

Formula C₇H₈ClN₃O₄S₂
Formula Wt. 297.74
Melting Point 274°C
Purity ≥98%
Solubility 200 mM ethanol; 100 mM
50% ethanol

Store Temp Ambient

Ship Temp Ambient

Description Hydrochlorothiazide (HCT) is an antihypertensive thiazide diuretic that is used to treat hypertension and chronic kidney disease. HCT competes for the Cl⁻ site on the Na⁺/Cl⁻ co-transporter (NCCT), decreasing reabsorption of Na⁺ in the distal convoluted tubule, inducing natriuresis and decreasing blood volume. HCT also partially inhibits carbonic anhydrase I in erythrocytes and vascular smooth muscle cells; this mechanism may be behind the ability of HCT to decrease peripheral vascular resistance and blood pressure. Separately, HCT may also increase reabsorption of Ca²⁺. This compound may also exhibit anticancer chemotherapeutic benefit in conjunction with UVA light, as it enhances production of TT dimers in vitro and in vivo.



Bulk quantities available upon request

Product ID	Size
H9614	100 mg
H9614	5 g
H9614	25 g

References Kunisada M, Masaki T, Ono R, et al. Hydrochlorothiazide enhances UVA-induced DNA damage. *Photochem Photobiol.* 2013 May-Jun;89(3):649-54. PMID: 23331297.

Karadsheh F, Weir MR. Thiazide and thiazide-like diuretics: an opportunity to reduce blood pressure in patients with advanced kidney disease. *Curr Hypertens Rep.* 2012 Oct;14(5):416-20. PMID: 22886538.

Duarte JD, Cooper-DeHoff RM. Mechanisms for blood pressure lowering and metabolic effects of thiazide and thiazide-like diuretics. *Expert Rev Cardiovasc Ther.* 2010 Jun;8(6):793-802. PMID: 20528637.

Puscas I, Coltau M, Baican M, et al. Vasodilatory effect of diuretics is dependent on inhibition of vascular smooth muscle carbonic anhydrase by a direct mechanism of action. *Drugs Exp Clin Res.* 1999;25(6):271-9. PMID: 10713865.

Shirley DG, Walter SJ, Laycock JF. The role of sodium depletion in hydrochlorothiazide-induced antidiuresis in Brattleboro rats with diabetes insipidus. *Clin Sci Mol Med.* 1978 Mar;54(3):209-15. PMID: 630797.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.