

<b>Product Name:</b>	Cefteram pivoxil
<b>Product Number:</b>	C144
<b>CAS Number:</b>	82547-81-7
<b>Molecular Formula:</b>	$C_{22}H_{27}N_9O_7S_2$
<b>Molecular Weight:</b>	593.64
<b>Form:</b>	Powder
<b>Appearance:</b>	Off-white or light yellow powder
<b>Source:</b>	Synthetic
<b>Water Content (Karl Fischer):</b>	≤2.0%
<b>Optical Rotation:</b>	+35° - +43°
<b>Storage Conditions:</b>	-20°C
<b>Description:</b>	Cefteram pivoxil is a third generation cephalosporin antibiotic. Cefteram pivoxil contains a pivoxil group which increases lipophilicity. Cefteram pivoxil is freely soluble in ethanol, acetonitrile, methanol, and chloroform.
<b>Mechanism of Action:</b>	Like $\beta$ -lactams, cephalosporins interfere with PBP (penicillin binding protein) activity involved in the final phase of peptidoglycan synthesis. PBP's are enzymes which catalyze a pentaglycine crosslink between alanine and lysine residues providing additional strength to the cell wall. Without a pentaglycine crosslink, the integrity of the cell wall is severely compromised and ultimately leads to cell lysis and death. Resistance to cephalosporins is commonly due to cells containing plasmid encoded $\beta$ -lactamases.
<b>Spectrum:</b>	Like many third generation cephalosporins, cefteram is mostly active against gram negative bacteria especially those which cause meningitis and gonorrhea.
<b>References:</b>	"Serious hypocarnitinemia and hypoglycaemia in Children treated with antibacterials with a Pivoxil group." Pmda.go.jp. N.p., n.d. Web. 8 Apr. 2014. Fuchs, Tarr. "Case Study: Cefditoren Pivoxil: An Oral Prodrug of Cefditoren." Prodrugs V (2007): 1185-194. Link.springer.com. Web. 8 Apr. 2014.