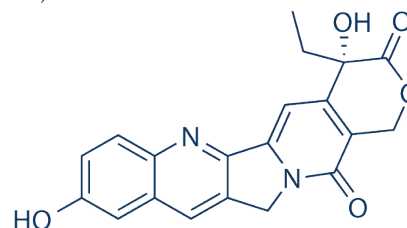


# TECHNICAL DATA SHEET


<b>Product name</b>	: 10-hydroxycamptothecin	<b>Sources</b>	: Chemical semi-synthesis
<b>Synonyms</b>	: (+/-)-10-Hydroxycamptothecin; (S)-10-Hydroxycamptothecin; (+/-)-4-Ethyl-4,9-dihydroxy-1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione		
<b>CAS No.</b>	: 64439-81-2 ; 19685-09-7		
<b>EINECS/ELINCS</b>	: 2017-001-1		
<b>Molecular formula</b>	: C <sub>20</sub> H <sub>16</sub> N <sub>2</sub> O <sub>5</sub>		
<b>Molecular weight</b>	: 364.357		



## Description

Camptothecin is a modified monoterpene indole alkaloid, first isolated from the extract of a Chinese medicinal tree *Camptotheca acuminata* Decne, and has been extensively used in traditional Chinese medicine. Various organs of the species contain camptothecin and its derivatives, which inhibit the activity of topoisomerase I and have a broad spectrum of anticancer activity in vitro and in vivo. As the 10-hydroxy isomer, 10-Hydroxycamptothecin (10-HCPT) shows less toxicity but similar activity. However, its use has still been limited due to its water-insolubility and toxicity with i.v. administration. Therefore, researchers are working on the developments in drug delivery of such alkaloids, which are of significance in improving their drug-like properties and, thus, treatment efficiencies in clinic. Strategies, including specific delivery via liposomes; sustained delivery via nanoparticles, gels, and emulsions; and transdermal delivery via ethosomes, solid lipid nanoparticles, and penetrating enhancers, have been reported to improve the pharmacokinetic and physicochemical characters of problematic TCM alkaloids, decline their adverse effects, and thus, boost their curative efficacies. Nowadays, the camptothecin derivatives are used throughout the world for the treatment of various cancers, and over a dozen more camptothecin analogues are currently at various stages of clinical development.

## Specifications

Purities	99%
Color	Off White
Form	Light yellow powder
Loss on drying	≤ 5.0%
Heavy metals	≤ 10ppm
Lead	≤ 1ppm
Cadmium	≤ 0.5ppm
Arsenic	≤ 0.5ppm
Mercury	≤ 0.5ppm
Microbials	
Total Plate Count	NMT 1000 cfu/g
Yeast and Mold	NMT 100 cfu/g
Escherichia coli	Negative
Salmonella	Negative
Solubility (in vitro)	Soluble in chloroform, methanol, ethanol, insoluble in water.
Density	1.6 g/cm <sup>3</sup>
Melting Point	230-237°C
GHS Classification & Signal:	H315 (100%): Causes skin irritation
	H319 (100%): Causes serious eye irritation
<b>Warning</b> 	H335 (100%): May cause respiratory irritation

## Allergement Statements

	Absent	Present
Milk and products thereof		X
Eggs and products thereof		X
Fish and products thereof		X
Crustaceans and products thereof		X
Tree nuts		X
Wheat and products thereof		X
Peanuts and products thereof		X
Soybeans and products thereof		X

## Applications

Pharmaceuticals;

## Status

Non GMO product.  
 Not Irradiated product.  
 Gluten Free product.  
 Animal Origin Free product.

## Packaging

10g per foil bag.

## Shelf life and Storage

24months unopened stored in a cool and dry location.