

Product Name:	Amygdalin (Vitamin B17)
Product Number:	A066
CAS Number:	29883-15-6
Molecular Formula:	$C_{20}H_{27}NO_{11}$
Molecular Weight:	457.43
Form:	Powder
Appearance:	White Powder
Solubility:	Water: 83 mg/mL
Source:	Almonds and apricot kernels
Melting Point:	210-215°C
Optical Rotation:	-40° to -45°
Storage Conditions:	2-8°C
Description:	Amygdalin (Vitamin B17) is a glucoside derived from almonds and apricot kernels and is structurally related to vitamin B17. In the 1950s, amygdalin was a proposed anti-cancer agent; however, because of its cyanogenic properties, its use is highly avoided. Amygdalin is freely soluble in water at 83 mg/mL.
Mechanism of Action:	After ingestion of amygdalin, β -glucosidase enzymes in the digestive system metabolize amygdalin producing hydrogen cyanide. Some of the hydrogen cyanide produced can find its way to tumor cells which is thought to have a potent cytotoxic effect.
Cancer Applications	Amygdalin can be used to study cytotoxic effects of cyanide on cancerous cells.
References:	Miazzo, S., et al. "Laetrile Treatment for Cancer." Cochrane Database of Systematic Reviews 9.11 (2011): n. pag. Ncbi.gov. Web. 5 Nov. 2012.