

# Vitamin A Palmitate USP

**INCI Name: Retinyl Palmitate**

**CAS Numbers: 79-81-2**

## Description:

Retinyl (alt. "Retinol") palmitate, or vitamin A palmitate, is the ester of retinol (vitamin A) and palmitic acid. Retinyl palmitate is approved by the FDA as a food additive, as an over-the-counter (OTC) drug, and a prescription drug. Retinyl palmitate has been shown in UVB exposure studies to offer sun protection all by itself, and it is a potent antioxidant and skin-cell regulator.



## Technical Data:

### CHARACTERISTICS

<b>Appearance</b>	Light yellow oily liquid
<b>Solubility</b>	Soluble in fats, oils, and hydrocarbons
<b>Stability</b>	Sensitive to oxygen, light, moisture, and heat; when stored in an unopened container at above 20°C, a certain percentage of potency loss is expected

### SPECIFICATIONS

<b>Carrier/Other Ingredients</b>	Tocopherol	<b>Heavy Metals</b>	≤ 10 Parts per million
<b>Identification</b>	Positive	<b>Arsenic</b>	≤ 3 Parts per million
<b>Absorbance Ratio</b>	Observed absorbance $A_{(325)} \geq 0.85$	<b>Cadmium</b>	≤ 1 Part per million
<b>Peroxide Value</b>	≤ 2	<b>Lead</b>	≤ 1 Parts per million
<b>Acidity (pH)</b>	≤ 1	<b>Mercury</b>	≤ 0.1 Part per million
<b>Assay</b>	≥ 1.7 million iu/g, Vitamin A palmitate		
<b>Residual Solvent</b>			
Ethanol	≤ 3,000 Parts per million		

### MICROBIOLOGY SPECIFICATIONS

<b>Total Plate Count</b>	≤ 1000 cfu/g
<b>Yeast &amp; Mold</b>	≤ 100 cfu/g
<b>Coliforms</b>	≤ 10 cfu/g
<b>E. Coli</b>	Negative
<b>Salmonella</b>	Negative
<b>Staph. Aureus</b>	Negative

## Applications:

Vitamin A palmitate is very popular in moisturizers, anti-aging products, lipsticks, foundations, sunscreens, shampoos and conditioners, eye creams, and scores of other skin care and cosmetic products.



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