



Retinol CT50

Description: Retinol CT50 is a California Proposition 65 compliant source of anti-aging retinol for use in cosmetic formulations. Retinol is the most efficacious form of vitamin A for cosmetic use. This retinol ingredient is free of both BHA (butylated hydroxyanisole) and BHT (butylated hydroxytoluene) which are often present in retinol sources to prevent oxidation of the retinol.

The retinol in CT50 is protected from oxidation by Vitamin E (dl-alpha Tocopherol) which provides effective protection and yields a more consumer friendly ingredient profile. The use of this retinol source avoids the requirement for a California Proposition 65 warning label for retinol products that contain BHA and also addresses customer concerns for products containing BHT.

Typical Properties

INCI Name:	Retinol, Polysorbate 20 and dl Tocopherol
Appearance:	Off-white to pale yellow oily, viscous liquid
Retinol concentration:	50% \pm 5%

Packaging:

Aluminum bottles

Standard packouts:

1.0 kg
5.0 kg

Formulation Guidelines

It is recommended that Retinol be handled under yellow light to prevent isomerization and exposure to oxygen should be minimized by sparging the formulation with nitrogen and adding the CT50. Retinol during the cool down phase of making an emulsion. Once the original package has been opened, use all of the retinol or purge the bottle with inert gas (oxygen free nitrogen or argon) and then reseal the bottle.

Storage Conditions & Preparation for Use

Recommended storage conditions are at 6°C/43°F or below.

Retinol must be thawed immediately prior to use. To thaw, maintain product at 50°C/122°F until retinol crystals are completely thawed and then rotate the container to ensure that the product is homogenous. Product remaining after use should be protected in the container by purging the container headspace with inert gas (Nitrogen or Argon), resealing and storing at the low temperature conditions recommended above.





Retinol CT50

INCI Name	CAS Number	EINECS Number	Origin
Retinol	68-26-8	200-683-7	Petroleum sources

Preservatives: None

Stabilizers: dl-alpha Tocopherol

Specifications

Test Description	Acceptance Criteria	Method
Appearance	Pale yellow to yellow oily viscous liquid	Visual
Identification	Exhibits maxima between 324 and 326 nm	UV
	Develops blue color with a antimony tri chloride solution in chloroform	Visual
Absorption in IPA	324.0 - 326.0	UV
Assay	45.0 - 55.0 %	UV
Solubility	Dispersible in water	Visual
Microbiological	TPC: ≤100 CFU/g Yeast + Mold: ≤10 CFU/g No specified microorganisms present	USP Microbial Limits
Residual Solvents	<3000 ppm Methanol <5000 ppm n-Pentane <290 ppm Hexane	GC

All HBS test methods are available to customers upon request

