

# Technical Data Sheet

## Eastman GEM™ Retinyl Sunflowerate

### Chemical Synonym

INCI: retinyl sunflowerseedate

### Applications

- Cosmetic ingredients - lips
- Cosmetic ingredients eyes & face
- Skin care ingredients

### Key Attributes

- High purity anti-aging active
- Liquid form without added solvents, oils or diluents
- No added ingredients and no preservatives
- Prepared using GEM™ technology, which significantly reduces energy, CO2 emissions, waste, and water usage

### Product Description

Eastman GEM™ retinyl sunflowerate is a pro-retinol derivative composed of retinol and sunflower fatty acids. It is a biobased, formulation-stable, easy-to-handle, nonirritating antiaging ingredient. Retinyl sunflowerate is manufactured using Eastman's EPA award-winning GEM technology, which applies the 12 Design Principles of Green Chemistry. At room temperature, it is a pourable liquid and supplied as a high-purity (>95%) assay; therefore, it is free of carriers. Eastman GEM retinyl sunflowerate is made from sunflower seed oil that contains >70% healthy unsaturated fatty acids.

### Typical Properties

Property	Typical Value, Units
<b>General</b>	
Odor	Low
Gardner Color	< 12
Bio-based Content	47 %
Water	< 0.5 %
Retinyl acetate	< 2 %
Retinol	< 2 %
Assay	97 %
Appearance	Clear Yellow Liquid
Form	Liquid

### Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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