

## General information:

<b>INCI Name</b>	Polyurethane-64
<b>Ingredient category</b>	Film former
<b>Chemical description</b>	Ethanol- based polyurethane polymer (non-ionic)
<b>Appearance</b>	Transparent solution
<b>Solid content</b>	40.0±5.0
<b>Viscosity</b>	<10000 mPa.s

## Sustainability profile:

- **Biodegradability:** Reached a mean biodegradation rate of 15% within 28 days (OECD 301 ready biodegradability test\*).
- **Microplastics status:** out of scope (2019 ECHA restriction proposal).

\*Test performed on the polymer itself.

## Applications:

- **Sun care:** (hydro-) alcoholic system (sun protection, spray, aerosol, gel) & sun protective oil
- **Hair care:** hair oil

## Technical benefits:

### Sun care

- (Salt) water resistance
- Sweat resistance
- SPF boost
- Wet skin application
- Non-greasy
- Not sticky

### Hair care

- High humidity
- Style retention
- Long-lasting & flexible hold

## Others:

- Suitable for **vegan** products.
- Suitable for **cruelty-free** products.



## Recommendations/Formulating tips:

### Use level

- 3-7% as supplied

### Compatibility

- **Chelating agents:** Compatible with state-of-the-art chelating agents.
- **Water:** limited compatibility (up to 15% water for 2% active polymer)
- **Ethanol:** soluble in ethanol
- **Propellants:** compatible with DME
- **Emollients:** very selective compatibility. We recommend the use of polar emollients e.g. benzoates, lactates, tartrates and malates. Non-polar emollients are not compatible if not blended with polar emollients.



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