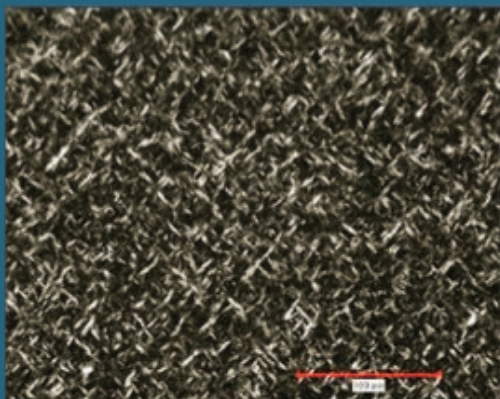


# CosmoSurf® CE-140

with both solid & liquid peripheries, CE-140 provides structure to formulation while maintaining exceptional spreadability.



The image shows how CE-140's liquid and solid portions orient. The liquid portion of the polymer (shown in black) allows CE-140 to enhance feel and provide a shear induced flow. The solid (shown in white) provides structure and sustainability. CE-140 orientates to form a matrix, as if it is chain linked.

This orientation makes CE-140 a fantastic waterproofing agent. A sunscreen using CE-140 (see a sample formulation on the other side) not only felt great but also maintained high-levels of SPF after an 80 min water emersion test.

## High performance, natural based waterproofing polymer

FILM FORMING POLYMER

Derived from:  
**citric acid, octyldodecanol, stearyl alcohol crosslinked with 1,3 propane diol**

Key properties:

- passes 80 min water emersion test
- exceptional sensory and skin feel
- functional performance at low concentrations

Suggested use:

**for waterproof sun care sport line with high spf (see other side for a sample formulation)**

For more information,  
**contact us at [ctarletsky@surfatech.com](mailto:ctarletsky@surfatech.com)**  
**for ingredient supply and customized consulting**

**SurfaTech Corporation**  
1625 Lakes Pkwy suite N  
Lawrenceville, GA 30043

**770-876-6983**

# CosmoSurf® CE-140

## Sample formulation: high SPF waterproof sunscreen

	A	B	C
Water	74.20	83.10	83.10
Carbomer	0.25	0.25	0.25
Disodium Ethylenediaminetetraacetic acid	0.05	0.05	0.05
Triethanolamine	1.00	1.00	1.00
Octocrylene	3.00	3.00	3.00
Octisalate	3.00	3.00	3.00
Oxybenzone	2.00	2.00	2.00
Avobenzone	1.00	1.00	1.00
<i>Stearic Acid</i>	<i>2.00</i>	<i>1.00</i>	<i>1.00</i>
<i>Sorbitan Isostearate</i>	<i>0.00</i>	<i>1.00</i>	<i>1.00</i>
<i>Polyglyceryl-3 Distearate</i>	<i>0.00</i>	<i>1.00</i>	<i>1.00</i>
<i>Glyceryl Stearate</i>	<i>3.00</i>	<i>0.00</i>	<i>0.00</i>
Benzyl Alcohol	1.00	1.00	1.00
Dimethylpolysiloxane	0.50	0.50	0.50
VP/Eicosene Copolymer	0.00	0.00	2.00
<i>Methylparaben</i>	<i>0.00</i>	<i>0.10</i>	<i>0.10</i>
<i>C12-15 Alkyl Benzoate</i>	<i>8.00</i>	<i>0.00</i>	<i>0.00</i>
<b>CosmoSurf® CE-140</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>
Phenoxyethanol (and) Isopropylparaben (and) Isobutylparaben (and) Butylparaben	1.00	0.00	0.00

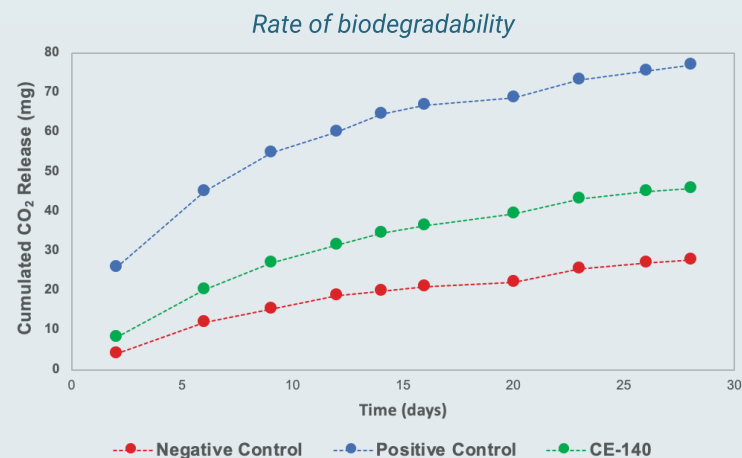
	SPF	Result
<b>A</b>	< 19	-
<b>B (CE-140)</b>	28.85	VWR
<b>C</b>	29.05	VWR

5 subject in vivo 80 min water immersion

## Natural waterproofing polymer for “microplastic free” sun care product

### OCEAN SAFE COMMITMENT

SurfaTech is committed to creating **microplastic free, coral reef safe, biodegradable ingredients** using patented molecular technology.



It is our belief that it is our responsibility to protect the environment for future generations. We accomplish this by producing green materials. We believe the path to a greener tomorrow moves away from non-green plastics (polyacrylates, polyethylene, PEG, ect.) to high-functioning polymers that are naturally derived and made from renewable resources without catalyst or solvents.

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