



Hydroalcoholic Gel Regulation update

Hydroalcoholic gels for hand antiseptics are regulated by the **European Biocide Directive**.

(Regulation (EU) n°528/2012). They belong to "biocidal products used for human hygiene purposes, applied on or in contact with human skin or scalps for the primary purpose of disinfecting the skin or scalp."

Ingredients that inspire

A new French decree has just been published on **20 March 2020**. It allows the temporary availability on the market and use of **approved hydroalcoholic formulas with new polymers** by derogation.

Hydroalcoholic Gel 1

Ingredient	Quantity
Ethanol absolute	650 to 750 ml
or 96° % v/v	675 to 777 ml
or 95° % v/v	681 to 786 ml
or 90° % v/v	720 to 830 ml
Glycerin	50 ml
Among listed thickeners:	
SEPINOV™ EMT 10	10 to 20 ml
Aqua/Water	Up to 1000 ml

Hydroalcoholic Gel 2

Ingredient	Quantity
Ethanol	
or 96° % v/v	58% p/p (~ 65% v/v at 20 °C)
or 95° % v/v	59.1% p/p (~ 65% v/v at 20 °C)
or 90° % v/v	63.7% p/p (~ 65% v/v at 20 °C)
Glycerin or Propylene glycol or Butylene glycol or Propanediol or Diglycerin	0.5 to 5% p/p
Among listed thickeners:	
SEPIMAX ZEN™	0.4 to 0.8% p/p
or SEPINOV™ EMT 10	0.5 to 2% p/p
or SIMULGEL™ 600	1 to 4% p/p
Aqua/Water	Up to 100%

Source: <https://www.legifrance.gouv.fr/eli/arrete/2020/3/20/TREP2008113A/ja/texte>

Seppic polymers make hydroalcoholic formulas easy to use with gel texture. Formulas have variable viscosities and rheological behaviour. All these **indicative formulas** below contain **more than 60% of alcohol**.

Addition of 3 - 5% glycerin can prevent dehydrated skin. Compliance with standard NF EN 14476 is not verified on these formulas.

Hydroalcoholic Gel
EU06371A

A	Aqua/Water	Up to 100%
	Ethanol 95°	67.00%

B	SEPIGEL™ 305	3.00%

Turbid Gel
35,000 mPa.s Brookfield S4S6
68.37% v/v*

Hydroalcoholic blue Gel
EU07037A

A	Aqua/Water	Up to 100%
	Ethanol 95°	65.00%
	Colorant	Up to
	SEIPLUS™ 400	2.25%

Turbid Gel
46,000 mPa.s Brookfield S4S6
72.84% v/v*

Translucid Hydroalcoholic Gel - EU7614

A	Aqua/Water	Up to 100%
	Ethanol 95°	65.00%
	SEPINOV™ EMT 10	0.80%

Translucid liquid
580 mPa.s Brookfield S3S6
71.49% v/v*
Gel texture with SEPINOV™ EMT 10 (ethanol 95° 65%w/w ~68.27% v/v*) available on www.seppic.com

Moisturizing hydroalcoholic Gel - AS40067A

A	Aqua/Water	Up to 100%
	Glycerin	3.00%
	Ethanol 95°	66.00%

B	SEPIMAX ZEN™	0.80%

C	AQUAXYL™	1.00%

Transparent Gel
14,000 mPa.s Brookfield S3S6
74.4% v/v*

*Equivalence in accordance with JORF Decree 20th march 2020

They allow to incorporate **high levels of solvents, especially 95° of alcohol**. Handling is easy with immediate thickening without neutralization, cold processable.

SEPIGEL™ 305 (liquid)

Polyacrylamide - C13-14 Isoparaffin - Laureth-7

Compatibility ethanol 95°:
70% p/p (~76.99% v/v) at 3%
Equipment :



SEIPLUS™ 400 (liquid)

Polyacrylate 13 - Polyisobutene - Polysorbate 20

Compatibility ethanol 95°:
>65% p/p (~71.49% v/v) at 2%
Equipment :



SEPINOV™ EMT 10 (powder)

Hydroxyethyl Acrylate/Sodium Acryloyldimethyl Taurate Copolymer

Compatibility ethanol 95°:
65% p/p (~71.49% v/v) at 2%
Equipment :



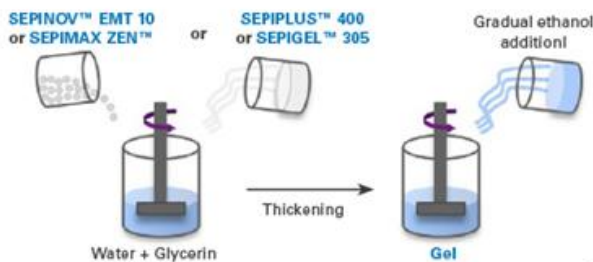
SEPIMAX ZEN™ (powder)

Polyacrylate Crosspolymer-6

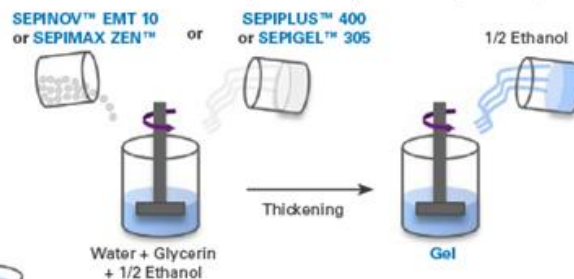
Compatibility ethanol 95°:
>95% p/p (~95% v/v) at 2.8%
Equipment :



Process 1 :
Gradual ethanol addition



Process 2 :
Dilution of initial gel for easier shearing and polymer dispersion (powder grades)



Hydroalcoholic gel

- Appearance of the gel becomes more transparent with a high percentage of ethanol
- Let stand the gel for better homogenization and more transparency

A company

