



## NovaSpray HFC 227ea

### PERFORMANCES

The **NovaSpray™ HFC 227ea** is an aerosol grade heptafluoropropane. With a constant quality, it meets all the requirements of a propellant.

Its **non-flammability** allows a wide range of formulations requiring safety measures (*regulations, hazardous environments, confined spaces*).

Potentially Explosive Atmospheres (**ATEX**) **equipment and protective systems are not required.**  
With no effect on the ozone layer.

### SPECIFICATIONS

Standard Characteristics	Limit values
Appearance	<b>Clear</b>
Purity	<b>≥ 99.5 % weight</b>
Moisture content	<b>≤ 10 ppm weight</b>
Acidity (HCl)	<b>≤ 1 ppm weight</b>
Non condensable ( <i>gaseous phase</i> )	<b>≤ 1.5 % volume</b>
Non volatile residue	<b>≤ 100 ppm weight</b>

### CHARACTERISTICS

		Units	Values
Chemical formula			<b>CF<sub>3</sub>-CHF-CF<sub>3</sub></b>
Chemical name			<b>1,1,1,2,3,3,3-heptafluoropropane</b>
Molecular weight		g/mol	<b>170</b>
Boiling point	at 1.013 bar	°C	<b>-16.5</b>
Liquid density	at 20°C at 50°C	kg/dm <sup>3</sup>	<b>1.41</b> <b>1.26</b>
Relative pressure	saturation vapor at 20°C saturation vapor at 50°C	bar	<b>3.0</b> <b>8.6</b>
Kauri-Butanol index			<b>13</b>
HFC 227ea solubility	in water at 20°C	% weight	<b>0.06</b>
Water solubility	in HFC 227ea at 25°C	% weight	<b>0.06</b>
Lower flammability limit Upper flammability limit	in the air at 20°C below 1.013 bar	% volume	<b>none</b>
Auto-ignition temperature		°C	<b>&gt; 650</b>



### PACKAGING

	Bottles		Container	Bulk
Capacity (liter)	26	88	930	5 to 20 T
Tare (kg)	16	38	460	
Load (kg)	30	100	1000	
Diameter (mm)	300	300	860	
Height (mm)	630	1530	2330	
Outflow external diameter (mm)	21.7	21.7	26.1	
Tap: right pitch (mm)	1.814	1.814	1.814	
Test pressure (bar)	30	33	33	

- Packaging technical characteristics are available upon request to the commercial department.
- Feasibility of filling packaging of the customers if they are in conformity with the legislation.
- Contact us for any other specific packaging.

### STORAGE AND SHELF LIFE

#### Précautions for handling and storage :

**French plants are controlled by the regulation of listed Establishments and have to comply with it (or with the local legislation).**

- All packaging will be stored in a dry, well ventilated, easily accessible place, sheltered from sunlight and bad weather, away from any ignition source.
- It is recommended to store all packaging either in a specific place or isolated and sheltered by a fence.
- All packaging and piping will be grounded to discharge static electricity.
- Leak detectors, put at ground level, will be connected to an audible alarm, which will trigger in the event of leaks.
- The whole equipment will be tested with an appropriate leak detector before use.
- Material and electrical equipment in an explosive atmosphere will comply with the regulations (*grounding, equipotential bonding, ATEX material*).

**Climalife can study the set up and assembling of your storage tanks, piping, and pumps, according to the prevailing regulations**



### CONDITIONS OF USE

Please refer to the Material Safety Data Sheet (MSDS) before using the product.

Workers handling the product should be trained about risks and preventive measures.

The product is compatible with:

COMPATIBILITY	INCOMPATIBILITY
<p>Plastics:</p> <ul style="list-style-type: none"><li>▪ Polyvinyl chloride (PVC)</li><li>▪ Polypropylene</li><li>▪ Polyethylene</li><li>▪ Teflon</li></ul> <p>Elastomers:</p> <ul style="list-style-type: none"><li>▪ BUNA N®</li><li>▪ Natural rubbers</li></ul> <p>Metals:</p> <ul style="list-style-type: none"><li>▪ Ordinary steel</li><li>▪ Stainless steel</li></ul>	<ul style="list-style-type: none"><li>▪ Viton®</li><li>▪ Urethane</li><li>▪ Strong bases</li><li>▪ Oxidizing agents</li></ul>

The information above is intended as a guide only. We assume no liability for its accuracy on its use. The user should make its own tests under its conditions in order to determine the suitability of any compound in a peculiar application.

Handle :

- away from heat sources (flames or hot metallic surfaces)
- in cool and aired premises

### HEALTH SAFETY ENVIRONMENT (HSE)

Consult the Material Safety Datasheet (MSDS) on the website: [www.quickfds.com](http://www.quickfds.com)

*This data is based on information that the manufacturer believed to be reliable and offered in good faith. In no event will Climalife be responsible for special, incidental and consequential damages. The user is responsible, to the Administrative Authorities (Regulation of the listed establishments for the protection of the environment), for the conformity of his installation.*