

## A special liquid for inflating tyres.

LESTOGEL R is a special organic antifreeze for inflating and ballasting tyres. Used diluted in demineralised water, it prevents the formation of potentially damaging ice blocks in the inner tubes.

### USES

LESTOGEL R can be used, among other things, for agricultural and forestry tractors, and for snow ploughs.

It is sometimes necessary to ballast tyres in order to increase adhesion and limit slipping. When the temperature falls below zero, it is strongly recommended to add a glycol-based antifreeze to the ballast water. Our LESTOGEL R product is specifically intended for this use.

Tyres and their "air/water" valve systems are designed to allow them to be filled with up to 75% liquid. The quantity of water + antifreeze therefore ranges from **a few hundred litres to more than 1,000 litres** for the largest tyres.

The ability of a water + glycol mixture to remain liquid is measured by a standardised test (NF T 78-102) that allows the freezing point to be determined. This test indicates **the freezing temperature of a sample of only 100 millilitres of liquid** (1/10 of a litre). Using the freezing point as a reference at the outside temperature is therefore not appropriate, given the substantial volume of liquid inside the tyre and the duration of the agricultural machinery's exposure to that temperature.

In practice, some professionals recommend an antifreeze content of 5%, which provides protection in most circumstances (temperature between 0 and -10°C).

Based on experience, the table below can be used to determine the concentration of LESTOGEL R according to the minimum outside temperature.

<b>LESTOGEL R (% by volume)</b>	5%	10%	15%
<b>Outside temperature °C</b>	>-10°	>-18°	>-24°

The operator should strengthen these concentrations (increase the % of LESTOGEL – see the freezing points in the table of characteristics) if the machinery is to be used in extreme conditions of very low temperatures for long periods.

### ADVANTAGES

- Borax-free
- Nitrite-free
- Amine-free

LESTOGEL R does not attack rubber, pump components or valves. Its intrinsic biodegradability is 100% at 14 days according to the OCDE 302 B method.

LESTOGEL R contains monoethylene glycol. For the protection of public health, and especially of children, LESTOGEL R contains a product that gives it a bitter taste.

It also contains corrosion inhibitors that protect metals in certain specific applications. In this case, do not dilute below 33% in order to retain the anti-corrosion properties.

Characteristic	Method	Unit	Value
Freezing point at 33% vol.	NF T 78-102	°C	-18
Freezing point at 40% vol.	NF T 78-102	°C	-25
Freezing point at 50% vol.	NF T 78-102	°C	-37
Alkaline reserve	NF T 78-101	ml	≥ 4
Density	NF T 60-172	kg/dm <sup>3</sup>	1117
Refractive index (at 20°C)	NF R 15-602-2	-	1430
Boiling point	NF R 15-602-4	°C	161
Flash point	ASTM D93	°C	125

*The characteristics are given purely for information and are consistent with our current production standards. IGOL reserves the right to modify them, in order to pass on technical developments to its customers. Before using this product, you should consult the instructions for use and the environmental impacts shown on the technical and safety data sheets. The information given above is based on the current state of our knowledge of the product in question. The product user should take all relevant precautions relating to its use. Under no circumstances may IGOL be held liable for damages resulting from misuse.*

Document ref.: VIII-IGOL013-2308

Published: 11 October 2023