

FAQ

What are the essential Prefirex specs and KSP (Key Selling Points)?

Neutral and free of ammonium polyphosphate (APP)

PH = 6.5

Colour: white (to differentiate for people on the ground: no APP!)

Easy to spray:

- Relative density: 1.25 g/ml
- Viscosity: 140 cP (mPas)

Only on the surface: our special formula uses biodegradable nanocellulose to stay on the surface only while being a liquid fire retardant. Prefirex will not filter to the underground!

Ready to use: no need of mixing or water addition.

Long term storage and protection:

- Long protection: up to 5 days, depending on weather conditions.
- Long storage life: 2 years in storage.

And also a fertilizer!

Prefirex becomes non-toxic natural magnesium sulfate fertilizer after fire or rain.

Can Prefirex be used also from aircrafts?

Yes, Prefirex can be used on the ground and also from aircrafts.

→ Please contact our team for a more detailed answer on this topic.

How deep does Prefirex filter into the ground?

Prefirex key innovation -beyond the use of Magnesium sulfate as main active ingredient- is the ability to be liquid while remaining only on the top layer of foliage and soil, thanks to the use of biodegradable cellulose compounds.

Prefirex will not filter into deeper grounds or reach underwater reserves.

→ Please contact our team for a more detailed answer on this topic.

Why use Magnesium sulfate?

Traditional fire retardants use APP as main ingredient. These are good fire retardants and are often marketed as “fertilizers” since, in the right dosage, that active ingredient is used commonly in agriculture.

However, those solutions pose certain challenges for the people on the ground during fires,

and for the environment after use.

Magnesium sulfate, due to its nature as water-retainer (or, in the case of Prefirex, “Petrified Water” which binds 7 molecules of water per each MgSO_4 molecule), allows to create an extremely effective long-term retardant, being friendlier for the people on the ground and the environment as a whole. And magnesium sulfate is also commonly used as fertilizer!

→ Please contact our team for a more detailed answer on this topic.

What is Prefirex PH level?

Prefirex: PH = 6.5

What happens when planes drop Prefirex directly on firemen on the ground?

The magnesium salt

Mg-salt itself dries the skin if there is a prolonged contact, but this same salt is also used in skincare products, bath, salts, (ie: in Spanish, Sal de Epsom).

Of course, some isolated person may have some hypersensitivity or allergic reaction issues, but these should not be common.

Other components

There is only one preservative component in our cellulose stabilizer component (used for preventing filtering to the deeper ground) that may cause skin irritation, but its concentration is much lower than the warning limit: ca < 0.0003% vs reported issues noted at > 0.1%).

Xpyro team operates with these components in the lab without the use PPE equipment.

What happens to the soil if you put Prefirex but there is no fire or no rain? How does it impact the ground?

You get nice Mg and S fertilizing and watering the soil locally.

A bit expensive maybe but no other harm done!

How much use per m^2 ?

Typically, $3\text{l}/\text{m}^2$, but can vary depending on the type and height of vegetation at the site.

→ Please contact our team for a more detailed answer on this topic.

What happens at very high temperatures?

Starting at about 1124°C , it decomposes into magnesium oxide (MgO) and sulfur dioxide (SO_2) and trioxide (SO_3), the latter being also potentially acidifying and corrosive, at high

concentrations will contribute to respiratory issues, and to acid rain formation in the atmosphere.

Does Prefirex work with standard fire-truck and other emergency ground service pump devices?

Yes, Prefirex is made to work with the pumps and pumping tools used by most emergency services and other private users. Below some specifications:

- relative density: 1.25 g/ml
- viscosity: 140 cP (mPas)

→ Contact our team if you require confirmation for your equipment.

How long can I store Prefirex?

Up to 2 years.

Do I need to mix Prefirex with water before use?

No, Prefirex is ready to use.

Do I need to shake it or stir it if in storage for a long time?

In general, no. If the container has been completely still for months, starting to pump it from storage forward may be sufficient agitation.

How much in advance can I apply Prefirex on my ground?

If no rain in between, Prefirex will remain an active fire retardant for up to 5 days since applied on the ground, depending on the weather conditions.