

# AERIAL FIRE RETARDANT GEL



# USER MANUAL

# THE WILDFIRE CRISIS: TIME TO FIGHT FIRE SMARTER

## THE WILD / VELD FIRES CHALLENGE

Wild / Veld Fires are growing in intensity and frequency, wreaking havoc on ecosystems, economies, and communities worldwide. Climate change, drought, and human impact are accelerating the threat.

## GLOBAL WILDFIRE IMPACT (2023)

40+ million acres (16.2 million ha) burned globally

USA: 66,000+ fires; 3.1 million ha burned

Canada: Record-breaking 18.5 million ha burned

Europe: 500,000+ ha affected; 41 fatalities; major protected areas burned

## SOUTH AFRICA SNAPSHOT

41,568 fires annually (avg)

Western Cape (Jul 2023–Apr 2024):

- 1,435 veld fires reported in Cape Winelands
- 52,501 ha burned; 15,587 ha on CapeNature estates
- 69% of fires occurred in Stellenbosch and Drakenstein

## TRADITIONAL RETARDANTS: HIGH IMPACT, HIGH RISK

First used in the 1960s, ammonium phosphate-based retardants:

- Are toxic to aquatic ecosystems
- Cause residue buildup in soil and water
- Harm biodiversity and flora
- Are under increasing regulatory restrictions

# FIREBLOCK AIR

FIREBLOCK AIR is a deep orange, non-toxic, biodegradable aerial fire retardant gel that combines powerful fire suppression with minimal environmental impact.

## PRODUCT OVERVIEW



FIREBLOCK AIR is a deep orange, high-performance gel designed to:

- Prevent wildfire spread and control operations
- Excellent adhesion to vegetation and terrain, superior bonding properties reduce application requirements.
- Provide long-lasting protection from heat and flame
- Visibility ensures precision drop zones
- Safe firebreak creation

## KEY INGREDIENTS & COMPOSITION

COMPONENT	DETAILS
Biodegradable thickeners	Form strong gel matrix
Natural gel-forming agents	Improve viscosity and adhesion
Water base	Ensures safe mixing and application
Non-toxic colorant	Enhances drop visibility
100% phosphate-free	Safe for soil and wildlife

# HOW FIREBLOCK AIR WORKS



## DIRECT ATTACK

- Applied directly to fire front to cool flames and prevent spread

## INDIRECT ATTACK

- Dropped ahead of fire line to form moisture-rich firebreaks
- Clings to vegetation, preventing ignition

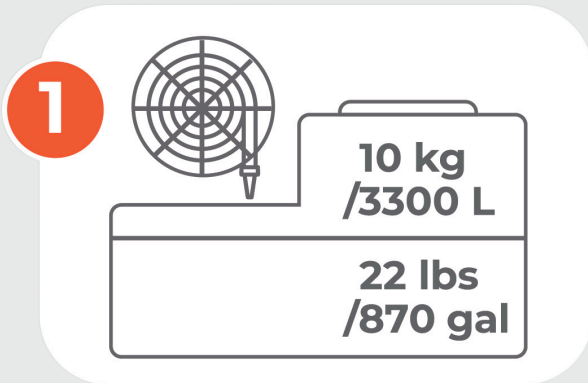
# APPLICATION & DEPLOYMENT (TBA)

PARAMETER	RANGE
Drop Altitude	60–90 meters (200–300 feet)
Coverage Rate	3,000–6,000 litres/km
Drop Width	10–30 meters (33–98 feet)
Compatible Systems	Helicopters, fixed-wing aircraft, ground units

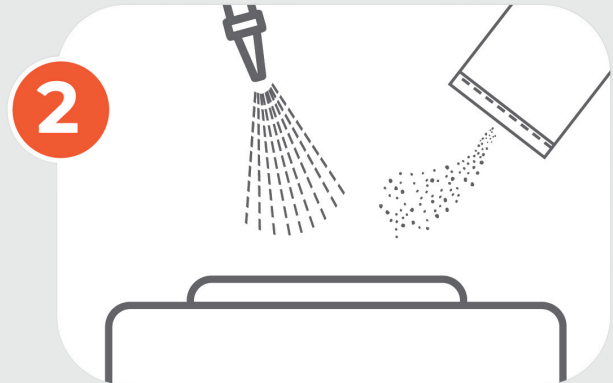


# MIXING INSTRUCTIONS

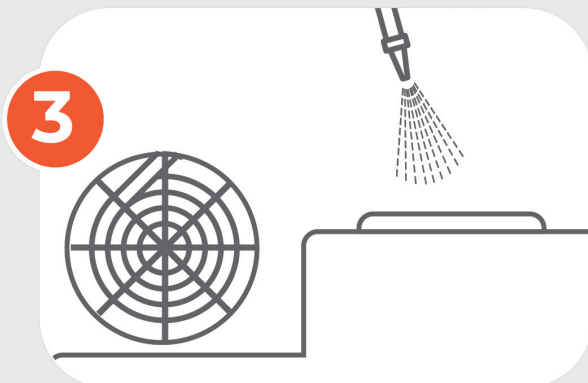
## DIRECTIONS FOR USE



How to add 10 kg(22 lbs) of Fireblock to 3300L (870 gal) of water



Spray nozzle back into tank while slowly adding the powder



Circulate for 4 minutes

4

Ready to use in 4 minutes

Best result when premixed

Premix can be stored in a tank for up to 12 months

Ratio might change depending on water quality

Visit [www.fireblock.co.za](http://www.fireblock.co.za) for instruction video

# ENVIRONMENTAL CONSIDERATIONS

- 01 ▶ 100% biodegradable
- 02 ▶ No phosphate runoff
- 03 ▶ Leaves no long-term residue in soil or vegetation



# CLEANUP & RESIDUAL EFFECTS

- 01 ▶ Washes away naturally with rainfall or irrigation
- 02 ▶ No soil contamination
- 03 ▶ Supports post-fire ecosystem recovery and agriculture

# SAFETY & HANDLING

- 01 ▶ Non-toxic and skin-safe
- 02 ▶ Minimal PPE required
- 03 ▶ Easy cleanup from vehicles and equipment
- 04 ▶ Non-corrosive – safe for tanks and aircraft

# PACKAGING & AVAILABILITY

01▶

## **10kg / 22lbs bags**

Concentrated powder formula (mixing plant required)

02▶

## **1,000L flow bins**

For fixed installations or logistics hubs

03▶

## **30 000L tanker units**

Mixed and ready to move to required fire zone

04▶

## **Shelf Life**

12 months if mixed. 3 years kept sealed in bags

05▶

## **Versions**

Ready-to-use or concentrated powder



# WHY CHOOSE FIREBLOCK AIR?

FEATURE	FIREBLOCK AIR	TRADITIONAL RETARDANTS
Non-toxic	Yes	Often toxic to aquatic life
Biodegradable	Yes	Partial or none
Phosphate-free	Yes	No
Visibility (deep orange tint)	Excellent	May fade quickly
Vegetation adhesion	Excellent	Poor
Drop efficiency	Long-lasting	Requires reapplication
Clean-up	Natural rainwash	Requires manual cleanup

## FIREBLOCK AIR VS. WATER

FEATURE	FIREBLOCK AIR	WATER
Evaporation Rate	Low	High
Vegetation Adhesion	Excellent	Poor
Fire Prevention	High	Minimal
Residual Protection	Long-lasting gel layer	None
Environmental Safety	Highly Safe & Non-toxic	Neutral

# FREQUENTLY ASKED QUESTIONS (FAQS)

01▶

## **Why is FIREBLOCK AIR important in fighting Wild/Veld Fires?**

With fires becoming more intense, frequent, and costly, FIREBLOCK AIR offers a smarter and cleaner way to suppress them, reducing damage while protecting the environment..

02▶

## **What makes FIREBLOCK AIR different from other fire suppression methods?**

It delivers powerful protection with minimal environmental impact. Unlike harsh chemical retardants, it's gentle on nature and safe for ecosystems.

03▶

## **Is FIREBLOCK AIR effective in real-world fire emergencies?**

It's a clean, biodegradable product that aligns with eco-conscious firefighting, leaving no toxic residue and supporting long-term environmental health.

04▶

## **When should I choose FIREBLOCK AIR?**

When dealing with large or rapidly growing wildfires, especially when the fire is out of control or smoke obscures ground operations.

05▶

## **How does FIREBLOCK Air compare to other aerial fire suppression products?**

FIREBLOCK Air is cheaper than most products currently on the market.

### **Material Safety and Data Sheet**

Contact FIREBLOCK ® for SDS Safety Data information sheet or [click here](#).

### **Warranty Information**

The Fireblock Air comes with a 1-year warranty against manufacturing defects. This warranty does not cover misuse, improper storage, or accidental damage.

For assistance or claims, contact our customer support team at Fireblock (PTY) Ltd:

[sales@fireblock.co.za](mailto:sales@fireblock.co.za)