

**HYGOOD**

**SAPPHIRE**

Fire Protection Systems

delivering 3M™ Novec™ 1230 Fire Protection Fluid



environmentally  
**friendly**  
fire extinguishing  
systems



# Fire Extinguishing Systems for what's precious to you

**Hygood Sapphire™ Systems, using 3M™ Novec™ 1230 Fire Protection Fluid have emerged as the solution of choice for fire extinguishing systems to protect high value assets and processes. Sapphire is a clean agent system which is proven to be environmentally friendly.**

## Hygood Sapphire Warranty

To reassure users that Sapphire systems are now and will continue to be environmentally friendly, every Sapphire installation now carries a 20-year environmental warranty. For details of the warranty please ask your approved Hygood distributor or contact Hygood at the address on this brochure.

Today's need is for a fast-extinguishing, sustainable, clean agent – free of any ozone depletion potential and with the lowest possible emission of “greenhouse gases” – that can be used in occupied spaces.

## benefits

- Sapphire Systems are custom engineered for Novec 1230
- Zero ozone depletion potential
- Global warming potential of one
- Clear, colourless, low-odour agent
- Simple to refill
- Discharges within 10 seconds

Novec 1230 fluid, delivered by Sapphire fixed systems from Hygood, meets this demanding profile, precisely. It complies with all statutory requirements, both current and anticipated.

Crucially, Sapphire Fire Extinguishing Systems are designed specifically for Novec 1230, the efficacy of which has been demonstrated by independently witnessed fire tests. It is listed as “acceptable without restrictions” by the US Environmental Protection Agency's Significant New Alternatives Policy (SNAP) and is registered under Europe's ELINCS scheme. The Sapphire system has been approved by LPCB, UL and FM, all major marine classification societies and is included in EN15004, NFPA 2001 and ISO 14520. Compare its properties with those of other chemical extinguishing agents – see chart opposite – and you will appreciate why Sapphire Fire Extinguishing Systems provide the best long-term solution to protect what really matters to you.

## applications

- Telecommunications sites
- Computer centres
- Museums and archives
- Oil and gas industry sites
- Power generation installations
- Civil and military marine
- Rail and mass transit



**high performance**

Long term, sustainable protection for high value assets - your life, your business, your world.



## More good reasons to choose Hygood Sapphire™ System Technology delivering 3M™ Novec™ 1230 Fire Protection Fluid

### Fast acting protection

Hygood Sapphire Systems using Novec 1230 fluid are designed to work fast, rapidly absorbing heat to the point where combustion ceases. Once actuated, Hygood Sapphire systems deliver the extinguishant within 10 seconds, stopping Class A, B and C fires before they have chance to spread. When fire is extinguished this quickly, the result is less damage, lower refurbishment costs and reduced downtime.

### Neighbourly protection

Almost everything we do has some impact on the environment, from switching on the air conditioner to starting the car. But Novec systems are different as the agent has zero ozone depletion potential and a global warming potential of just one, with an atmospheric lifetime of between three and five days, making Novec agent environmentally friendly, with minimal impact.

### Playing safe

Toxicity testing shows Novec 1230 fluid to be safe for use in occupied areas. Studies conducted in independent laboratories demonstrated that the agent is very low in both acute and chronic

toxicity, with an extremely high safety margin – the difference between the extinguishing design concentration and the No Observable Adverse Effect Level (NOAEL), making Sapphire fluid an extremely safe extinguishing solution for occupied areas.

Typical applications span computer centres, telecommunications installations, oil and gas exploration sites as well as trains and ships, both commercial and military.

### System recharging

Filling and recharging Sapphire systems is straight forward as the agent's high boiling point (49 degrees C) means it can be transported in lightweight drums rather than pressurised containers; air-freighting is an acceptable method for transporting unpressurised Novec storage containers, without the need or cost of hazardous cargo management.

### Low pressure technology

Hygood Sapphire systems operate at 25 bars and have been proven to achieve homogeneous distribution at this pressure resulting in the award of key internationally recognised approvals.



Properties	Sapphire/Novec 1230	HFC 125	Halon 1301
Ozone depletion potential (ODP)	0,0	0,0	12,0
Global warming potential	1	3,400	6,900
Atmospheric lifetime (years)	0,014	29	65
SNAP*	Yes	Yes	n/a

\*SNAP - Significant New Alternatives Policy (US EPA)



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Your life?  
Your business?  
Your World?



If these are precious to you...

**Protect the risk!**



**tyco** Fire Suppression  
& Building Products

Hygood Fire Extinguishing Systems are manufactured by:  
**Tyco Fire Suppression & Building Products**

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