

tyco
Fire Protection Products



SAPPHIRE

Gaseous Fire Suppression Systems
Delivering 3M™ Novec™ 1230 Fire Protection Fluid



SAPPHIRE

Gaseous Fire Suppression Systems

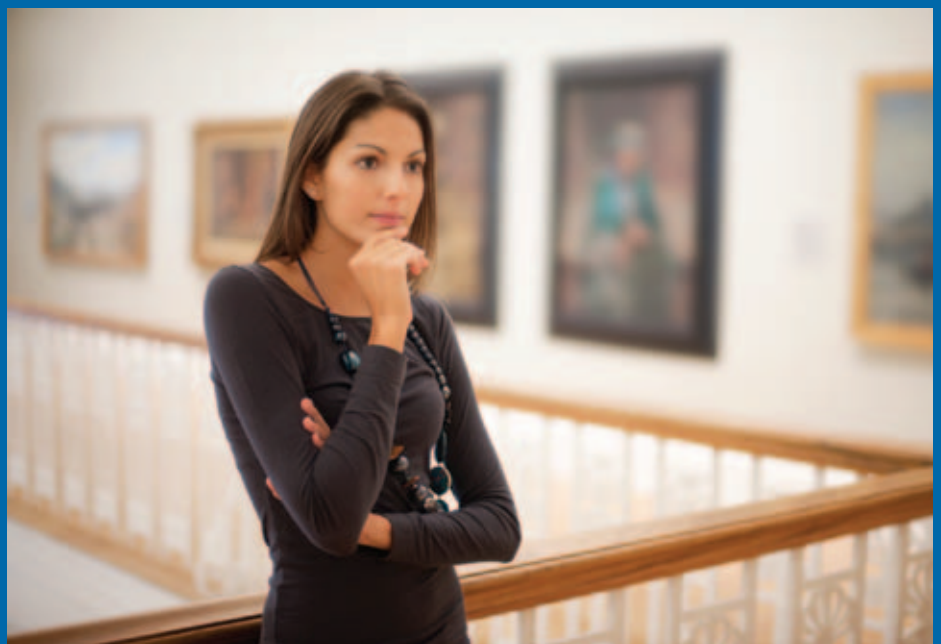
Delivering 3M™ Novec™ 1230 Fire Protection Fluid

LPG SAPPHIRE Fire Suppression System delivering 3M™ Novec™ 1230 Fire Protection Fluid is an environmentally friendly clean agent system, and the solution of choice for protecting people and high value assets.

LPG SAPPHIRE systems provide a proven and reliable fast acting, clean agent solution that is safe for use in occupied spaces. The system is environmentally friendly with zero ozone depletion potential (ODP) and negligible global warming potential (GWP).

LPG SAPPHIRE systems are specifically designed and developed based on independently witnessed fire tests. It is listed as “acceptable without restrictions” by the US Environmental Protection Agency’s Significant New Alternatives Policy (SNAP).

Every LPG SAPPHIRE installation carries a 20 year environmental warranty. For more information please contact your local approved LPG distributor for full details.



Protecting our world

Almost every aspect of modern life has a direct or indirect effect on the environment. With increasing demand for awareness and action regarding environmental issues, LPG SAPPHIRE systems help reduce environmental impact. Novec 1230 fluid has zero ozone depletion potential and a global warming potential of just one. The atmospheric lifetime is between three and five days making LPG SAPPHIRE an ideal solution without compromising the environment.

Playing Safe

LPG SAPPHIRE systems are ideal for use in occupied areas. Independent toxicity studies have established that the agent is very low in both acute and chronic toxicity with high safety margins between its normal use concentrations and the No Observable Adverse Effect Level (NOAEL).



Fast acting suppression

LPG SAPPHIRE systems work fast and are designed to rapidly absorb heat to the point where combustion ceases. Once actuated, LPG SAPPHIRE systems deliver the extinguishant within 10 seconds, stopping fires before they have the chance to spread. Most importantly when a fire is suppressed quickly, the result is less damage, lower refurbishment costs and reduced downtime.

Compact low pressure technology

LPG SAPPHIRE systems are compact and operate at both 25 and 42 bar, and have been proven to achieve homogeneous distribution of agent at these pressures complying with international standards and meeting the requirements of approval agencies globally.

System recharging

Filling and recharging LPG SAPPHIRE systems is straight forward as the agent's high boiling point of 49°C means the agent can be transported in lightweight drums rather than pressurised containers. Air freighting and other transport methods are possible for transporting unpressurised LPG SAPPHIRE containers.



Agent comparison

Properties	Novec 1230	HFC 125	HFC 23	HFC-227ea
Ozone depletion potential (ODP)	0	0	0	0
Global warming potential	1	3,500	14,800	3,220
Atmospheric lifetime (years)	0.014	29	270	24.2
SNAP*	Yes	Yes	Yes	Yes

*SNAP - Significant New Alternatives Policy (US EPA)
Environmental data from 4th Assessment report of IPCC 2007 and EPA's tables of ozone depleting substances

A close-up photograph of a woman with dark hair, seen from the side, looking down at a young girl with blonde hair in pigtails. The girl is looking down and to the right. They are in a classroom setting with wooden desks and chairs. The text is overlaid on the image, framed by two white diagonal lines.

**Trusted
gaseous
solutions
using
pioneering
technology**

SAPPHIRE

Gaseous Fire Suppression Systems

Delivering 3M™ Novec™ 1230 Fire Protection Fluid



- // *Fast Acting*
- // *Easy to Refill*
- // *Compact Storage*
- // *Environmentally Friendly*
- // *Safe for People*
- // *International Approvals*

Approvals





Global strength. Local expertise. At your service.

Head Offices:

Austria (Vienna)

Tel: +43 (0)1 271 0049
Fax: +43 (0)1 271 0142

Belgium (Mechelen)

Tel: +32 (0)15 285 555
Fax: +32 (0)15 206 076

Czech (Liberec)

Tel: + 420 482 736 291
Fax: + 420 482 736 293

France (Paris)

Tel: +33 (0)1 48 178 727
Fax: +33 (0)1 48 178 720

Germany (Rodgau)

Tel: +49 (0)6 106 84455
Fax: +49 (0)6 106 18177

Hungary (Budapest)

Tel: +36 (0)1 481 1383
Fax: +36 (0)1 203 4427

Italy (Milan)

Tel: +39 (0)331 583 000
Fax: +39 (0)331 583 030

Singapore (Asia Pacific)

Tel: +65 (0)6577 4360
Fax: +65 (0)6481 8791

Spain (Madrid)

Tel: +34 (0)91 380 74 60
Fax: +34 (0)91 380 74 61

Sweden (Lammhult)

Tel: +46 (0)472 269 980
Fax: +46 (0)472 269 989

The Netherlands (Enschede)

Tel: +31 (0)53 428 4444
Fax: +31 (0)53 428 3377

Turkey (Ankara)

Tel: +90 (0)312 473 70 11
Fax: +90 (0)312 473 73 92

United Arab Emirates (Dubai)

Tel: +971 (0)4 883 8689
Fax: +971 (0)4 883 8674

United Kingdom (Manchester)

Tel: +44 (0)161 2594 000
Fax: +44 (0)161 8750 491