

REVOLUTIONIZING FIRE SAFETY



TEMPERATURE BASED AEROSOL AUTOMATIC FIRE DETECTION AND SUPPRESSION SYSTEM

A FIRE SAFETY PRODUCTS COMPANY

THE PRIMARY CAUSES OF FIRE IN AN INDUSTRY

The primary causes of fire in an industry include-

- **Electrical Hazards**
- **Machinery and Equipment Issues**
- **Flammable Liquids and Gases**
- **Human Error**

Here's a more detailed breakdown:

ELECTRICAL HAZARDS

Faulty Wiring, Overloaded Circuits and Damaged Electrical Components can lead to sparks and fires, particularly in older facilities or those with inadequate electrical maintenance and the presence of flammable materials near electrical sources.

Faulty Wiring:

Damaged, loose or improperly installed wiring can overheat and create sparks igniting flammable materials.

Overloaded Circuits:

When too many electrical devices draw power from a single circuit, it can lead to overheating and potential fires.

Damaged Electrical Components:

Faulty appliances and equipments can malfunction and cause fires.

Poor Maintenance:

Lack of regular maintenance can cause electrical hazards increasing the risk of fire.

Improper Grounding:

Faulty grounding can lead to dangerous situations where electrical currents flow, causing sparks and fires.



PROTECT THAT TOOK YEARS TO BUILD

AUTOMATIC FIRE PROTECTION FOR
FACTORIES, OFFICES & WORKSPACES.

At SAVITUR Agni, we are dedicated to the distribution of advanced fire suppression systems. Our mission is to safeguard lives, assets, and the environment through innovative, reliable, and eco-conscious fire protection solutions.

SAVITUR Agni is an ISO 15779, Tianjin Fire Research Institute China, FM Compliant and RoHS certified next-generation fire safety technology company, committed to delivering smart, reliable, and efficient Aerosol Based Automatic Fire Detection And Suppression Systems. The product contain no fluorocarbons, hydro fluorocarbons or other green house gases with an extremely low global warming potential (GWP) and virtually no impact on green house effect. There is no ozone depleting substance (ODS), thus meeting environmental protection requirements. The chemical does not harm the sophisticated instruments inside the panel and the Aerosol chemical should be wiped as soon as possible after the release, certainly not later than 24 hours.

Aerosol Fire Suppressing Device is a clean gas fire suppressing product based on chemical inhibition. It generates ultra-fine inert solid particles mixed with inert gas through thermal reaction and quickly extinguishes enclosed space fires by oxygen barrier effects.

The principle of fire suppression is through chemical inhibition capturing combustion-free radicals and interrupting chain reactions combined with heat absorption thus rapidly extinguishing the fire.

The applicable fire types are Class A: Solid Surface Fire. Class B: Flammable Liquid Fire. Class C: Electrical Fire. This is not applicable for strong oxidizing agents, reactive metals and special chemicals.

The life of this product is 10-12 years plus.

We focus on compact, intelligent, and self-activating suppression systems that detect and extinguish fires at the source — automatically, without human intervention. Designed for demanding environments like electrical panels, engine bays and industrial enclosures, our solutions are trusted by operators who prioritize safety, uptime, and compliance.

We offer a diverse range of suppression technologies, tailored to suit varied needs and hazards.

PREVENTING ELECTRICAL FIRES IN INDUSTRY

Our Temperature Based Aerosol Automatic Detection And Suppression System with Thermal Wire installed inside Electrical Panels are designed to instantly detect and suppress fires thus minimizing damage to equipment and ensuring factory safety.

KEY FEATURES

Fast And Efficient Fire Suppression:

In case of fire, the Thermal Wire will automatically detect the Temperature and at around 100°C and above the Aerosol system attached to the Thermal Wire will get activated and automatically release a fine, strontium nitrate based aerosol that interrupts the chemical reaction of the fire, effectively extinguishing it instantly without water or other liquid agents.

Minimal Residue:

Unlike traditional suppression systems, Aerosol Suppression Systems leave minimal residue thus reducing clean-up and down time. There is no risk of damage to the costly instruments installed in the panel.

Environmentally Friendly:

Aerosol Suppression Systems use eco-friendly agents with no ozone depleting properties

Compact Design:

The Aerosol Suppression Systems are designed to fit into small spaces, making them ideal for electrical panels, machinery, server rooms, etc.

Benefits:

Shelf Life of Aerosol is 10-12 years

Rapid Detection and Suppression- Automatic Aerosol Systems detect fires quickly and automatically suppress them before they spread thus minimizing all kinds of risks

Applications:

Electrical Panels, IT Centres, Server Rooms, Warehouses, Factories, Hospitals, Hotels.

TEMPERATURE BASED AEROSOL AUTOMATIC FIRE
DETECTION AND SUPPRESSION SYSTEM
CAPACITY – 20 GRAMS AND 50 GRAMS



Description	Thermal	
Model	20 Grams	50 Grams
Model No.	QRRO.02GW/S-ZSXF	QRRO.05GW/S-ZSXF
Dimension (mm)	72 mm Dia x 50 mm Ht	76 mm Dia x 100 mm Ht
Compound Weight	20 Gram	50 Gram
Volume Coverage (m3)	0.2 m3 OR upto 3 Ft Ht x 3 Ft Lngth x 3 Ft Depth Panel	0.5 m3 OR upto 6 Ft Ht x 6 Ft Lngth x 3 Ft Depth Panel
Discharge Time	Within 6-10 seconds	Within 6-10 seconds
Activation	Automatic Thermal Activation	Automatic Thermal Activation
Operating Condition	-50deg C to +90 deg C / upto 95% RH	-50deg C to +90 deg C / upto 95% RH
Colour	Red Colour	Steel Silver
Lifespan	10 years +	10 years +
Class of Fire	A,B,C,E	A,B,C,E
Approvals and Certifications	ISO 15779 Tianjin Fire Research Institute China Relevant Chinese Fire Departments FM Compliant RoHS Certified	ISO 15779 Tianjin Fire Research Institute China Relevant Chinese Fire Departments FM Compliant RoHS Certified

PORTABLE AEROSOL FIRE EXTINGUISHING TORCH

No Refilling Needed For Upto 4-5 Years



TYPE	MANUAL FIRE EXTINGUISHER
AEROSOL CAPACITY	100 GRAMS
APPLICATION	SUITABLE FOR INITIAL FIRES AT HOMES, FACTORIES, OFFICES, EAREHOUSES, KITCHENS, ELECTRICAL ROOMS, ETC
REFILLING	NO REFILLING NEEDED FOR 4 – 5 YEARS
SUPPRESSION TIME	CAN SUPPRESS FIRE WITHIN SECONDS
EFFECTIVENESS	HIGHLY EFFECTIVE IN SUPPRESSING FIRE, PREVENTING RE-IGNITION AND MINIMIZING DAMAGE
MAINTENANCE	NO MAINTENANCE REQUIRED
CERTIFICATION	ISO 15779 COMPLIANT, FM COMPLIANT, ROHS CERTIFIED, TIANJIN FIRE RESEARCH INSTITUTE, CHINA
FEATURES	PORTABLE, NO LEAKAGE, LIGHT-WEIGHT, EASY TO USE
GUARANTY	SHELF LIFE OF 4-5 YEARS

WHAT IS AEROSOL

Multiphase systems containing liquid and/or solid particles smaller than 10 microns in diameter are known as aerosols. In the context of fire suppression, the term "Aerosol" commonly refers to extinguishing agents based on Strontium Nitrate $2\text{Sr}(\text{NO}_3 \longrightarrow 2\text{SrO} + 4\text{NO}_2 + \text{O}_2)$. These systems release a fine mist of micron-sized, non-conductive chemical particles under pressure.

Aerosol fire extinguishers work by dispersing these particles into the protected area, interrupting the chemical chain reactions that sustain fire. The extinguishing process is automatically activated through heat. Due to their effectiveness and non-conductive nature, aerosol systems are particularly suitable for electrical and sensitive equipment environments.

HOW DOES IT WORK

When the extinguisher unit is activated, a chemical reaction occurs within the extinguishing block. This reaction releases a mixture of Strontium Nitrate particles, water vapor, carbon dioxide, and dense nitrogen into the protected area. These particles work by targeting the core components of the fire—carbon, hydrogen, and hydrocarbon elements—and interrupt the chain combustion reactions and oxygen barrier effects.

The suppression effect is two-fold:

Physical: The chemical and other gases create a cooling effect, lowering the temperature of the combustion zone.

Chemical: The Strontium Nitrate based particles inhibit the chemical reactions that sustain the fire.

This dual-action approach results in rapid and highly effective fire suppression. Importantly, the oxygen concentration in the environment remains largely unaffected, making it safe for enclosed or occupied spaces.

TYPICAL APPLICATION AREAS FOR AEROSOL BASED FIRE SUPPRESSANTS AND EXTINGUISHERS

Aerosol Based Automatic Fire Detection And Suppression Systems are versatile and ideal for protecting a wide range of enclosed and sensitive environments. Key usage areas include:

- Panels of all sizes
- Industrial Facilities
- Factories
- Manufacturing Plants
- Educational Institutes like Schools, Colleges, etc
- Hospitals
- Hotels and Restaurants
- Critical IT Infrastructure
- Server Rooms, Data Centres and Electrical Panels
- Power Management Areas
- Generator Rooms, Transformer Rooms and UPS Systems
- Storage and Logistics Facilities
- Warehouses and other Enclosed Storage Areas
- Banking Equipment
- ATM Cabinets and Secure Enclosures
- Renewable Energy Systems

GET IN TOUCH WITH US



SAVITUR AGNI

7, JATINDRA MOHAN AVENUE, KOLKATA - 700006

VIPUL AGARWAL
9331017760

GAURAV GUPTA
9831029532

Website : www.savituragni.com

Email ID : info@savituragni.com