



Fire Agents  
Risk Assessment  
Fire Classifications



# BLAZECUT EXTINGUISHING AGENTS

Each environment is different, so choosing the right agent is critical. BlazeCut systems contain commonly used extinguishing agents known worldwide that suit any need, such as Novec™ 1230 fluid, HFC gaseous agent, foam agent or powder agent.

## FK-5-1-12 Clean Agent

FK-5-1-12 agent is a next-generation halon and HFC replacement, designed to address concerns for human safety, performance and the environment. FK-5-1-12 agent is stored as a liquid; however, it turns into gas upon discharge. FK-5-1-12 agent combines the key features of HFC gases with sustainable clean agent protection.

### Main features

- Zero ODP (ozone depletion potential)
- A global warming potential of less than one
- A five-day atmospheric lifetime
- A large margin of safety for occupied spaces



### Approvals

UL, ULC, FM, LPCB, SSL, VdS, CNPP, KFI, multiple global marine approvals

### Application

As a clean agent, FK-5-1-12 leaves no residues and will not affect sensitive electronics and devices. It is an ideal choice for the environment due to significant reduction in greenhouse gas emissions. The agent is suitable for Class A, Class B, Class C and Class E (electrical fires).

## Foam Agent

The BlazeCut systems use a high-end foaming agent, which is environmentally friendly and has tremendous extinguishing performance.

### Main features

- Environmentally formulated
- Non-corrosive
- 98% organic compounds
- Contains no PFOA or PFOS
- Zero discharge of hazardous chemicals
- Fully biodegradable

### Approvals

- UL/ULC Listed Foam Liquid Concentrate
- UL/ULC Listed Wetting Agent
- MPA Dresden Listed
- ICAO Certificate

### Application

Recommended for Class A and Class B fires as well as for Class F (kitchen fires) due to its high extinguishing performance and perfect results against re-ignition.



# EXTINGUISHING AGENTS

## HFC Clean Agent

HFC clean extinguishing agent is a liquefied gas used for volume fire suppression. HFC clean extinguishing agent is discharged as a stream of gas and liquid droplets that penetrate into the fire area, ceasing the combustion process through heat absorption and a chemical interaction. HFC clean extinguishing agent is considered environmentally accepted substitute for Halon extinguishing agents used in the past, which are harmful to the ozone layer.

### Main features

- Electrically non-conductive
- Non-corrosive
- Resistant to temperature changes
- Safe for people
- Leaves no residue
- Does not damage equipment, objects or sensitive devices
- Zero ODP (Ozone Depletion Potential)

### Types of HFC clean extinguishing agents used

- HFC-227ea

### Approvals

- HFC-227ea: UL recognized and FM Approved

### Application

HFC clean extinguishing agent is an agent of choice for protection of enclosures where residue may be harmful to the protected sensitive devices. The agent is suitable for Class A (creating flames), Class B, Class C and Class E (electrical fires).



## Powder Agent

The BlazeCut systems use a high quality powder extinguishing agent.

### Main features







- universal applicatoins
- electrically non-conductive
- non-corrosive
- resistant to temperature changes

### Application

Most commonly used and cost-effective extinguishing agent due to its very good extinguishing performance against Class A, Class B, Class C and Class E (electrical fires).



## FIRE CLASS RATINGS

	Description	Europe	Australia	United States
	Ordinary combustibles (wood, paper, fabric, refuse)	<b>Class A</b>	<b>Class A</b>	<b>Class A</b>
	Flammable liquids	<b>Class B</b>	<b>Class B</b>	<b>Class B</b>
	Burning gases	<b>Class C</b>	<b>Class C</b>	<b>Class B</b>
	Flammable metals	<b>Class D</b>	<b>Class D</b>	<b>Class D</b>
	Live electrical equipment	<b>Not classified (formerly Class E)</b>	<b>Class E</b>	<b>Class C</b>
	Cooking oils and fats	<b>Class F</b>	<b>Class F</b>	<b>Class K</b>

## FIRE BASICS

### THE FIRE TRIANGLE

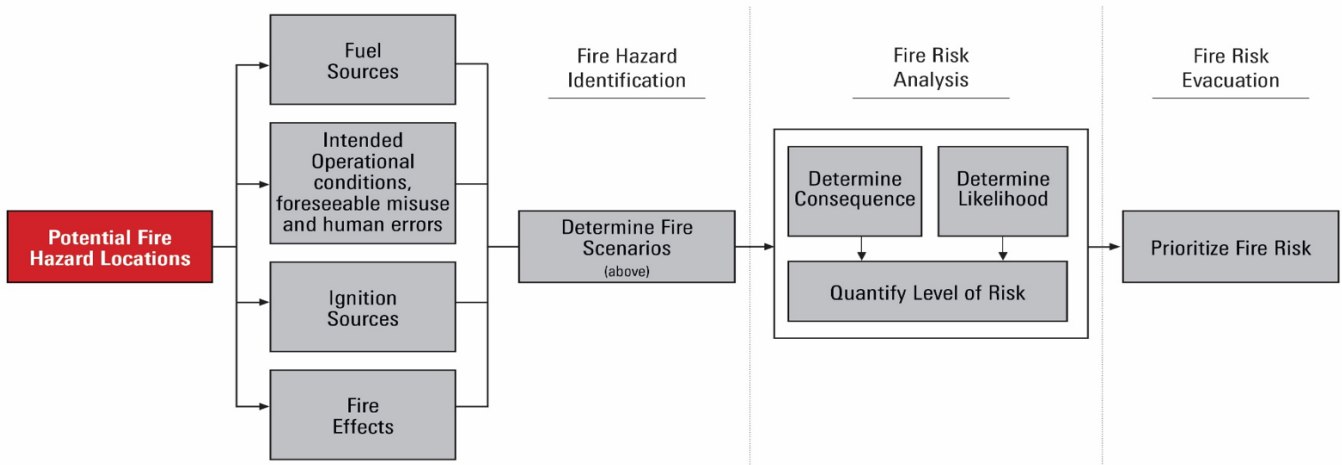


Each element of the Fire Triangle must be in place for combustion to occur. The fire is extinguished when one of the elements is removed from the reaction. The longer this takes the harder it is to suppress the fire as it transforms from a surface fire to a substance fire.

# RISK ASSESSMENTS

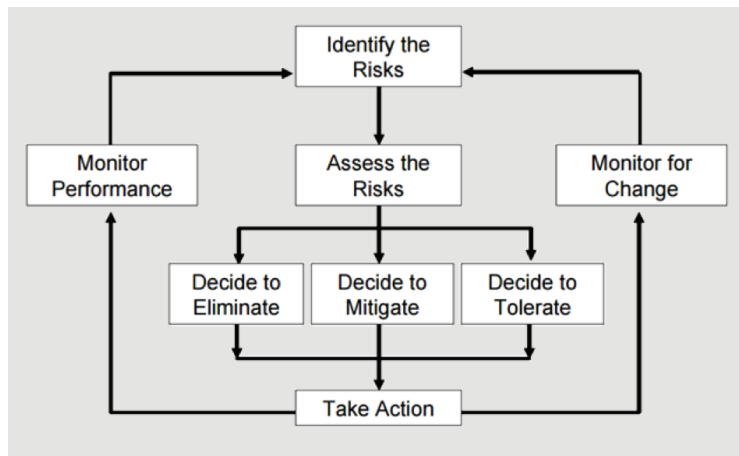
The first step before commencing any design, installation or upgrade of a fire suppression system, is to carry out a risk assessment. A Risk Assessment is an essential component of designing any fire suppression system. You need to be aware of exactly what risks need to be covered on any piece of equipment before the best solution can be achieved or the chance of something happening that will have a negative impact on the health or safety of a person and/or equipment may be increased.

A Risk assessment is the best way to identify all possible risks uniquely associated with any type of equipment assessed. Risk assessments involve a detailed and systematic examination of the equipment. The equipment's activity, location and operational system is assessed to identify any hazards.



## Risk Assessment Process

A very simple process is used to determine what is required to minimize the risks



## Risk Assessment and Control Chart

RAC Chart - Risk Assessment and Control Chart to evaluate and score the risk levels

LIKELIHOOD	CONSEQUENCE			
	CATASTROPHIC	CRITICAL	MARGINAL	NEGLIGIBLE
FREQUENT	20	18	15	5
PROBABLE	19	16	11	4
OCCASIONAL	17	13	8	3
REMOTE	14	12	7	2
IMPROBABLE	10	9	6	1
RISK SCORE	HIGH	MODERATE	LOW	VERY LOW

## BlazeCut Sales Locations

### Global Head Office

- 📍 Australia, Sydney
- ✉ sales@blazecutgroup.com
- 👁 BlazeCut.com

### Regional Sales Offices

Regional Locations:

- Chile
- Indonesia
- Philippines
- Russia
- Singapore
- Spain
- Sweden
- Thailand
- Turkey
- UK
- USA

### Production Facility:

#### BlazeCut s.r.o.

- 📍 Slovakia, Bernolákovo



## Quality Assurance

The BlazeCut s.r.o production facility is ISO 9001, ISO 14001 and AQAP 2110 certified.



**AQAP**  
2110

## Tested and Approved Products

- CE Approval
- Certificate of Conformity with design documentation
- Performance and technical specification testing in accredited testing institute: Strojírenský zkušební ústav, s.p., Czech Republic



UNECE R107  
Approved System

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