

Clean Agent FS 49 C2®

Trusted to save **lives** and **environment** in over **20 000** installations for more than **10** years

www.incosafety.com

“The Sensible Solution to a global dilemma”



General agent for **Brassbell** and **Bejaro**

Incosafety Corp (Inter Costal Safety Corporation) is the General agent for Brassbell in Latin America and the Caribbean.

The corporation is located in Panama, - a strategic location with Hub-location both for air flights and the marine traffic passing the Panama Canal. Incosafety supply fire suppression/ fire extinguishing systems including engineering, parts and assembly.

The main product is **FS 49 C2** (FS49C2). An environmentally engineered, human safe, fast extinguishing gas in fire suppression systems.

Incosafety represent experience within fire suppression technology back to as far as the 1960s. Experience with developing patents for the industry both in Europa and USA.

assembly and filling station in Panama. Incosafety works together with local agents in each location to serve with products, knowledge and good companionship.

With good logistics solutions to support us, Latin America and the Caribbean will be very well served with European quality products, fast delivery and qualified service from our

Companies that are interested to become agents are very welcome to contact us.



Incosafety Corp is covering Latin America and the Caribbean. We are located in Panama.



FS 49 C2 is a solution to save the Ozone layer in the spirit of the **Montreal Protocol** treaty

Since the discovery in the 1960s Halon has been a popular and effective fire extinguishing gas used on land and offshore. Halons are fire suppression gases that have been determined by scientists to cause destruction of the global ozone layer. United Nations Environment Programme (UNEP) and the signatory countries of the Montreal Protocol that regulates that Halon replacement shall be used. After 2010 the use of Halon is also banned for development countries.

Montreal Protocol
The ozone layer plays a crucial role in the screening of the sun's ultraviolet rays and is critical to man's well-being. An international agreement the Montreal Protocol by United Nations Environment Programme (UNEP) signed by many countries established the worldwide phase-out of the production and use of Halons. Some

"After 2010 the use of Halon is also banned for development countries"

countries have taken more specific steps on their own as a result of the Montreal Protocol, to ban or restrict the use of Halons. There was a slower phase-out to zero by 2010 for the development countries.

After 2010
This means that in most of the world after 2010 the Halon must not be used. If entering a port with Halon gas on board vessels now in most part of the world run the risk of being fined and held in detention at ports.



Ozone layer on the way to recovery:
According to United Nations Environmental Program the Ozone hole can close by 2050/2060

FS 49 C2 Installations Offshore

Safe **solution** the Navy way



1. Safe Lancia:
Buildt by GVA for Consafe.2
Engine room and various
installations protected by FS49C2



2. Statsraad Lehmkuhl Sailship:
Engine room protected by
Clean Agent FS 49 C2



3. High Speed Craft Laura:
Engine room protected by FS49C2



4. M/S Sydstrøm:
Ship Owner A.Utklien rederi
Engine room protected by FS49C2



5. URF Submarine:
Underwater vehicle for submarine rescue opera-
tions. 35 persons at a time can be transported
from a depth of 460 meters.
Engine room protected by FS49C2



6. M/S Mostrøm:
Ship Owner A.Utklien rederi
Engine room protected by FS49C2

For the offshore sector there have been a lot of banning and phase-out recommendations when it comes to fire suppression gasses. It's time for somethings that's going to last

Benefit from a secure choice
Along with the demand from the authorities, companies have high standards for security. It has been a wind of change during the years and companies would like to benefit from a choice of system for the future.

Halon is banned, and CO2 and Inert gasses are questioned by science organisations and authorities as they are deadly without smell. The industry can make a secure choice for the future by installing a FS49C2 system, the ultimate secure solution for the environment and for the personnel, and for preventing fire.



The Hamnia Class:
Missile boats. Buildt by
Aker Finnyards for the Finnish Navy



Combat Boat 90 (CB 90):
Buildt by Dokstavarvet for the Norwegian,
Swedish, Mexican and Malaysian Navy



Singapore Navy:
Various vessels

The FFS system, Fail - Fail - Safe is based on the principle of functional redundancy. A vessel fitted with a FFS system can deploy its **FS 49 C2** system even if one or more of its release mechanisms has failed.

The HMS Visby solution
Imagine a battle ship incapable of carrying out its mission because of a small, but critical fire!
The scenario is unlikely for HMS Visby. The solution is a fire extinguishing system based on Clean Agent FS 49 C2 and FFS. The system has been developed together with the Swedish Navy. Well combined

-Imagine a battle ship incapable of carrying out its mission because of a small, but critical fire!

expertise to achieve the optimal solution for war vessels.

Flexible and dependable
Should one of the devices fail another can pick up the slack and still release the gas. Should the solenoid on one of the valves fail, the solenoid on the other valve will still release. That makes the systems secure and dependable. Even it units are failing the system works.



The HMS Visby:
Battle ship with the incredible well planned fire security system that works even with several failures



Energy production units, wind mills and power stations are protected from fire with FS49C2 fire suppression systems.

Installations with generators and production units in wind, water and other types of energy production are protected as well as the control rooms. FS49C2 does not represent any damage to any electronic or other equipment on release makes it a optimal choice.

Energy production made **Safe** Making oil rigs

Bingo 9000:
Several Bingo 9000 Ultra-deepwater Semi-submersible rigs are protected by FS49C2

Bingo 9000 Ultra-deep-water Semisubmersible rigs are equipped with FS49C2 systems, the markets safest and most quick-acting systems.

Rigs working in cold and warm climates. A quick acting superior FS49C2 gas based solution makes the rigs more secure than other alternative solutions that might have challenges with temperatures and harsh weather conditions.

The fact that FS49C2 is safe for personell makes it a preferred solution for many governmental safety institutions as well.

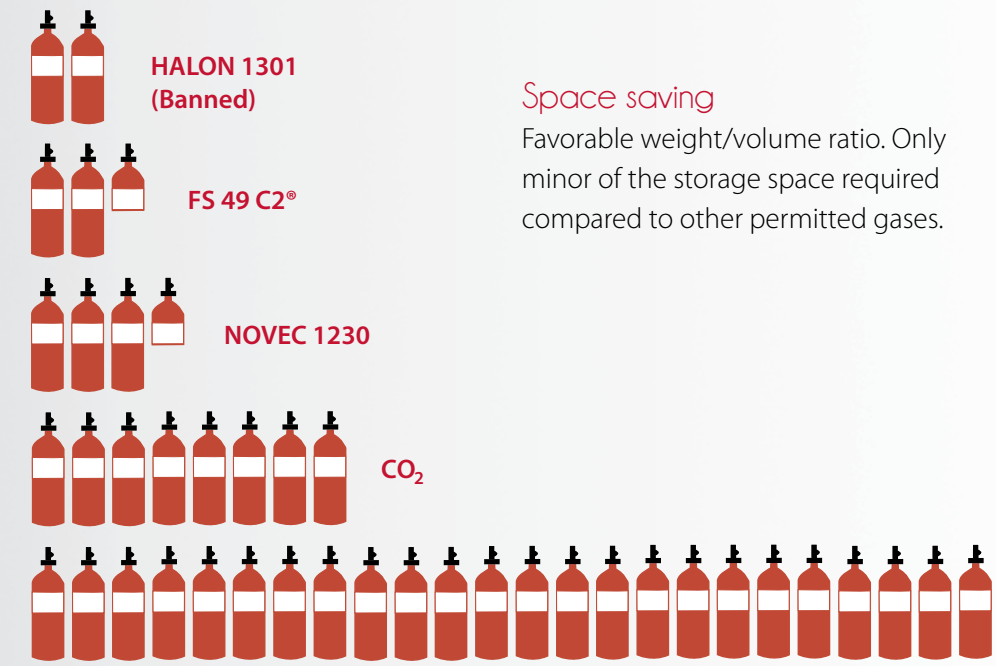


Be **sure** to get our **statements**



FS 49 C2[®] is likely to meet the requirements when it comes to safety and efficiency in both time and space saving fire protection.

- Ozone friendly**
An Ozone friendly clean extinguishing. Agent with zero Ozone Depletion Potential factor unlike Halon that is harmful to the Ozone layer and illegal.
- Quick extinction**
Quick-acting - Fast extinction. When the system on board the vessel is triggered it takes out the fire significantly quicker than many alternative systems. It empties all the gas in less than 10 seconds. (Land based systems will trigger automatically for even quicker extinction.)
- Not damaging other equipment**
When released the FS 49 C2[®] gas does not cause damage to electronics, computers or equipment like water based, foam based and others systems might do.
- Safe for humans**
No hazards to humans at extinguishing concentrations unlike many other gases that might be deadly for people.
- Trusted**
Thoroughly tested - favorable user response. Customers that are serious about safety have selected FS 49 C2[®] Clean Agent systems. It makes your decision easier. FS49C2 is delivered in more than 20 000 systems since 1999.
- Fast deliveries**
Due to effective logistic and products in storage, gas and systems can be provided on-site at a very competitive delivery time.
- Space comparison**
- Compatible with Halon**
Compatible with Halon technology. May be used in existing Halon systems. The Halon system might be converted and re-used.
- Good prices**
Due to small amount of gas, efficient logistics the total price might be significantly lower than other suppliers.
- Space saving**
Favorable weight/volume ratio. Only minor of the storage space required compared to other permitted gases.
- Dependable**
Solid trigger mechanism, quick filling of the room and rapid suppression makes the solution very dependable.



FS 49 C2[®] is stored in condensed form at 25 or 42 bar, a slight increase in a nozzle size and storage capacity is required in comparison with Halon 1301 systems. Release arrangement and pipe network in existing systems can be re-used.

INERT GASES
(Nitrogen, Argon and mixes thereof)



University of Lund, Sweden

Space-efficient and not deadly to human beings



Petrochemical Industries:
Laboratories, High Risk Areas and Storage Rooms protected



6000 m2 Archive in Lithuania:
Protected with Clean Agent FS 49 C2©



Some FS 49 C2 land based Installations



JAS Gripen:
A Jas Gripen fighter in the air. Great aircrafts deserve the best fire protection available.



JAS 39 Gripen:
The Swedish Airforce's latest multi-role fighter, hangar protected by 7000 kg FS49C2



Server and control rooms:
Provided with rapid fire protection that does not damage equipment, it just quickly takes out a fire.

FS 49 C2 (FS49C2) is the ideal fire extinguishing agent of choice for a new system as it is safe, clean and when used, leaves no residue to be cleaned up, mopped or scraped off. Any residue is usually harmless to any equipment, hence production downtime, if any is greatly reduced. Furthermore FS 49 C2 is quick acting which keeps fire damage to a minimum.

Reduce use of floor space
Like Halon 1301, FS 49 C2 has an ideal weight/volume ratio and is stored in liquid form, making a great reduction in use of floor space and weight. Replacing Halon 1301 with FS 49 C2 means great savings when upgrading your existing system. Minor technical adjustments as well as slightly increases in gas storage capacity are all that is

-stored in liquid form, making a great reduction in use of floor space

required. However, when converting to FS 49 C2 a complete analysis should be performed by trained Engineers.

Upgrade/Replacement
FS 49 C2 is one of the most favorable alternatives for conversion of upgrading of Halon 1301. FS 49 C2 is designed with a quick discharge that fills the room in less than 10 seconds. The concentrations needed to extinguish a fire are not dangerous to humans.



Computer room at University of Lund Sweden:
Library protected with Clean Agent FS 49 C2




MED - Marine Equipmen.
Directive 96/98/EC



Clean Agent FS 49 C2® is approved/Accepted and/or Tested by

- M.E.D - Marine Equipment Directive 96/98/EC
- Germanischer Lloyd
- Bureau Veritas
- American Bureau of Shipping - ABS
- SP Swedish National
- Swedish Maritime Administration
- Norwegian Maritime Directorate
- Finnish Maritime Directorate
- Maritime & Port Authority of Singapore
- Marine Administration, Isle of Man
- Swedish Armed Forces
- Norwegian Armed Forces
- Institute of Science and Technology
- Department of Fire Safety Engineering
- University of Lund, Sweden
- Testing & Research Institute
- ISO norms by SP
- CEA norms by SP
- IMO guidelines MSC/Circ. 776, 848
- Danish Maritime Authority
- Maritime and Coastguard Agency (MCA)
- Clean Agent FS 49 C2® System
- Halon 1301 Replacement Systems



**FS 49 C2® can avoid damage by quickly extinguishing
fire before get the chance to evolve**