

Environmentally friendly fire-extinguishing technology

Sustainable Future Now with condensed aerosol fire-extinguishing technology developed because of the Montreal Protocol 1994, which banned ozone-depleting substances, such as Halon1301 and other halocarbon and chlorofluorocarbon-based gases. Manufactured under ISO 14001, FirePro's EPA SNAP listed-products are CFC-free and HFC-free, with zero ODP (ozone-depletion potential) and zero GWP (global-warming potential).



FirePro® aerosol is non-toxic. On activation a white gas is emitted from the units – this is really particles and has an atmospheric life of approx. 20 minutes after which it will fall to earth as dust.



Ozone Depletion Potential (O.D.P.) = 0	Atmospheric Life Time (A.L.T.) = 0
Global Warming Potential (G.W.P.) = 0	Non-corrosive & Non-toxic

Analysis by a laser beam diffraction test, have shown the following gaseous and solid components:

52 % solid micro sized particles	inorganic potassium salts, mainly potassium nitrate, which is primarily converted into potassium carbonate. All particles are less than 5microns in diameter.
48 % gaseous particles	mainly water vapor, nitrogen and minor % of carbon dioxide

On activation the FPC has a combustion reaction generating the fire extinguishing condensed aerosol.

	Compound	Chemical	CAS #	% by Weight
GAS	Carbon Dioxide	CO2	124-398-9	13%-14%
	Nitrogen	N2	7727-37-9	21%-22%
	Water Vapor	H2O	7732-18-5	10%-12%
	Carbon Monoxide	CO		
	Methane	CH4		1%-2%
	Hydrogen	H2		
PARTICLES	Potassium Carbonate	K ₂ CO ₃	584-08-7	47%-49%
	Potassium Nitrate	KNO ₃	7757-79-1	2%-3%
	Potassium Chloride	KCl	7447-4-7	< 1%
	Other elements			< 1%

The residue is non-toxic and non-corrosive, it is hygroscopic in nature, so will attract and retain moisture. The chemical nature of the residues (potassium salts) is slightly alkaline PH is approx. 8.

Residue of Particulate matter after discharge of FirePro Aerosol Generators is approximately 30-35% of the aerosol weight of the generator. Example - 100g FirePro Generator will leave 30-35g of dust like residue distributed around the risk area. Where the risk area is ventilated during the aerosol phase the particles will be distributed by the prevailing wind conditions.



FirePro® consists of inorganic potassium salts. These will not cause any damage to human beings or animals. The concentrations of heavy metals and other trace elements are negligible. Upon activation our products pose no threat to the atmosphere when the extinguishing aerosol is produced.

Our products proudly have the Green Label, SNAP Listed (Significant New Alternative Policy) of EPA (USA) and Ozone-Friendly-NO-CFCs logos.



No Effect on Water Supplies eco systems and potable drinking water

where particles have been deposited on water supplies there will be no discernible effect on water bodies. The PH of 8 would have an impact but this would not normally be measurable, and the particle sizes which are less than 5 microns are so small that any concentration outside of a contained area where the discharge occurred would be extremely unlikely. Without such concentration the quality of eco water and potable drinking water will be unaffected.



Extract from SDS - Known health impact associated with direct exposure to the discharged aerosol. FirePro® aerosol-forming compound is not based on halogen compounds that react with the fire. It does not produce any corrosive halogen acid by-products in its reaction with the fire. Potassium carbonate creates stability in neurons to help maintain equilibrium. There are no known Occupational Exposure Limits.

Hazards Identification

- ☺ Hazards for humans related to the SBK solid compound have not been found.
- ☺ Hazards for humans related to the aerosol released by the solid compound have not been established.
- ☺ Signs and symptoms related to the aerosol are only referred to acute exposure and/or chronic overexposures.

Signs and Symptoms

☺ Eye Contact	At normal contact no injury
☺ Inhalation	Not a likely route of entry
☺ Skin Contact	At normal contact no injury
☺ Ingestion	At normal contact no injury
☺ Chronic Overexposure	At normal contact no injury
☺ Medical Conditions Generally Aggravated by Exposure	None known

Exposure Controls and Personal Protection

☺ Respiratory Protection	At normal contact not needed
☺ Hand Protection	At normal contact not needed
☺ Eye Protection	At normal contact not needed
☺ Skin and Body Protection	At normal contact not needed

