

OPERATION MANUAL



CEASEFIRE LOW PRESSURE MIST BASED AREA SANITIZATION EQUIPMENT

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1. Product Overview

Ceasefire Low Pressure Mist Based Area Sanitization Systems are a range of specially designed Surface Sanitizing systems that offer mist based decontamination to undertake large-scale decontamination efforts, in the most effective manner.

The range deploys two prime propulsion technologies that drive the system viz: Air cartridge based propulsion and Motorised Pump based propulsion. Each of these technologies give the system the kinetic force required to propel the agent out of the container.

The systems are based on compressed air technology that breaks down the decontamination agent many times over into extremely small droplets or mist. This fine mist of a super-efficient decontamination agent efficiently covers a large surface area that needs to be decontaminated.

There are two conspicuous advantages of using decontamination-mist technology for sanitisation:

- a) This process gives the agent an extensive coverage, i.e. it increases the area that a drop of the solution would cover by upto 4 times. This makes the sanitisation process super effective.
- b) Less amount of agent mix is used to decontaminate large areas, making it a superbly efficient technology.

2. The Decontamination Agent

The Ceasefire Mist Based Sanitization Systems are based on a highly powerful decontamination agent called the Sodium Hypochlorite. This agent is widely accepted as one of the most potent germicide and is effective on a wide range of infectants in an extremely small concentration as well.

Sodium Hypochlorite

Sodium Hypochlorite works by blocking the viral infection by increasing endosomal pH needed for virus/cell fusion, and interferes with the

glycosylation of virus cellular receptors. This super effective agent kills the germs (including the Corona virus) as soon as it is exposed to it.

Ceasefire uses the 5% v/v concentration variant of the decontamination agent as the base solution. This is diluted to a 1% concentration by adding water and used in the system.

3. The Decontamination System Variants

Ceasefire Low Pressure Mist Based Area Sanitization range is available in six variants:

- 3.1) Air Cartridge based Systems
 - 3.1 a) Portable 9 Litres Capacity System
 - i) About the System
 - *ii) How to make the system combat ready?*
 - 3.1 b) Trolley Mounted 9 Litres Capacity System
 - i) About the System
 - *ii) How to make the system combat ready?*
 - 3.1 c) Trolley Mounted 45 Litres Capacity System
 - i) About the System
 - ii) How to make the system combat ready?
- 3.2) Motorised Pump based Systems
 - 3.2 a) Motorised Pump Based 9 Litres System
 - i) About the System
 - *ii) How to make the system combat ready?*
 - 3.2 b) Motorised Pump Based 50 Litres System
 - i) About the System
 - *ii) How to make the system combat ready?*

- 3.2 c) Motorised Pump Based 100 Litres System
 - i) About the System
 - *ii) How to make the system combat ready?*

3.1) Air Cartridge based Systems

3.1 a) Portable 9 Litres Capacity System (Air Cartridge Based)

i) About the System

The 9 ltrs Low Pressure Mist Based Area Sanitization System is a spot pressure based system that has an agent container body with a capacity of 9 ltrs to store the decontamination agent.

The cylinder is attached to a 2 ltr Air cartridge which has pressurised air at 200 bars that acts as a propellant. On activation, the air from the cartridge propels out the decontamination agent through a specially designed gun. The gun disperses the decontamination agent as small droplets or mist. This mist covers a much larger area as compared to any other conventional method of dispensing the mix.

Being multi-use equipment it can undertake up to 12 sterilizing applications with a single cartridge. This 9 ltrs system is designed to give you 10 minutes of continuous discharge in every application. When the sanitizing agent is consumed up, one can easily top up the decontamination agent mix and continue the sanitizing activities.

ii) How to make the system combat ready?

The Ceasefire 9 ltrs Low Pressure Mist Based Area Sanitization Equipment is offered along with a potent disinfectant agent called Sodium Hypochlorite.

Two bottles of 900 ml of Sodium Hypochlorite solution is provided with this system. The system can be made ready by simply mixing water and the agent in prescribed proportions. One is required to mix 1.8 ltrs (2 bottles of 900 ml) of Sodium Hypochlorite with 7.2 ltrs of water and the system is ready for action.

3.1 b) Trolley Mounted 9 Litres Capacity System (Air Cartridge Based)

i) About the System

The trolley mounted 9 ltrs Low Pressure Mist Based Area Sanitization System is a wheeled, spot pressure based system that is easy to manoeuvre around. The agent container body has a capacity of 9 ltrs to store the decontamination agent.

The cylinder is attached to a 2 ltr Air cartridge which has pressurised air at 200 bars that acts as a propellant. On activation, the air from the cartridge forces the decontamination agent to come out through a specially designed gun. The gun disperses the decontamination agent as small droplets or mist covering a large surface area compared to any other conventional method of dispensing the mix.

Being multi-use equipment it can undertake up to 12 sterilizing applications with a single cartridge. This 9 ltrs system is designed to give you 10 minutes of continuous discharge in every application. When the sanitizing agent is consumed up, one can easily top up the decontamination agent mix and continue the sanitizing activities.

ii) How to make the system combat ready?

The Ceasefire 9 ltrs Low Pressure Mist Based Area Sanitization Equipment is offered along with a potent disinfectant agent called Sodium Hypochlorite.

Two bottles of 900 ml of Sodium Hypochlorite solution is provided with this system. The system can be made ready by simply mixing water and the agent in prescribed proportions. One is required to mix 1.8 ltrs (2 bottles of 900 ml) of Sodium Hypochlorite with 7.2 ltrs of water and the system is ready for action.

3.1 c) Trolley Mounted 45 Litres Capacity System (Air Cartridge Based)

i) About the System

The Trolley Mounted Low Pressure Mist Based Area Sanitization System is also a spot pressure based system that has an agent container body with a capacity of 45ltrs to store the decontamination agent.

The steel container is attached to a 6ltr Air cartridge which has pressurised air at 300 bars that acts as a propellant. On activation, the air from the cartridge propels out the decontamination agent through a specially designed gun. The gun disperses the decontamination agent as small droplets or fine mist. This mist covers a much larger area as compared to any other conventional method of dispensing the mix.

Being multi-use equipment it can undertake up to 12 sterilizing applications with a single cartridge. This 45 ltrs system is designed to give you 45 minutes of continuous discharge in every application. When the sanitizing agent is consumed up, one can easily top up the decontamination agent mix and continue the sanitizing activities.

This 45ltr variant is especially designed to effectively sanitise large premises with ease, without having to face the hassle of repeated refilling.

ii) How to make the system combat ready?

The Ceasefire 45 ltrs Low Pressure Mist Based Area Sanitization Equipment comes along with a potent decontamination agent called Sodium Hypochlorite.

Two cans of 5 ltrs of Sodium Hypochlorite solution is provided with this system. The system is made ready by simply mixing water and the agent in prescribed proportions. One is required to mix 9 litres of Sodium Hypochlorite with 36 litres of water and the system is ready for action.

3.2) Motorised Pump based Systems

3.2 a) Motorised Pump Based 9 Litres System

i) About the System

The system is a motorised water pump based system that uses single fluid technology to break down the decontamination agent into small mist particles. The agent in the cylinder is pushed out of the tank with a help of suction that is generated by an electrical motor pump.

The decontamination agent comes out of the system in form of tiny mist droplets. Mist being small in size spread over a larger surface area as compared to water droplets, thereby sanitizing larger surfaces with minimal quantity of the decontamination agent.

USP of the system is that one can use the system as many times by simply plugging it in to a power supply. This 9 ltrs motorised system is designed to give you 10 minutes of continuous discharge in a single application. When the sanitizing agent is consumed up, one can easily top up the decontamination agent mix and continue the sanitizing activities.

ii) How to make the system combat ready?

The Ceasefire 9 ltrs Low Pressure Mist Based Area Sanitization Equipment is offered along with a potent disinfectant agent called Sodium Hypochlorite.

Two bottles of 900ml of Sodium Hypochlorite solution is provided with this system. The system can be made ready by simply mixing water and the agent in prescribed proportions. One is required to mix 1.8 Litres (2 bottles of 900 ml) of Sodium Hypochlorite with 7.2 Litres of water and the system is ready for action.

3.2 b) Motorised Pump Based 50 Litres System

i) About the System

The trolley mounted 50 ltrs sanitization equipment is a motorised pump based system. It comprises of an agent cylinder which holds the decontamination mix and has a capacity of 50 ltrs. The system uses a motorised pump to propel the sterilizing agent out of the container body.

The motorized pump can be connected to a power supply. When the pump is switched on pressure is created that propels the decontamination agent out through a discharge gun.

This specially designed gun breaks down the decontamination agent into fine mist. This mist of the agent covers a large surface area effectively, leaving no gaps in the sterilizing process.

It is the on-the-go decontamination system. Just plug it on and keep going, as long as there is power supply and the decontamination mix in it there is no stopping. This 50 ltrs motorised system is designed to give you 60 minutes of continuous discharge in a single application. When the disinfectant solution is over, simply top it up again and continue sanitisation again.

ii) How to make the system combat ready?

The Ceasefire 50 ltrs Low Pressure Mist Based Area Sanitization Equipment is offered along with a potent disinfectant agent called Sodium Hypochlorite.

Two cans of 5 ltrs of Sodium Hypochlorite solution is provided with the system. The Sodium Hypochlorite solution comes in the concentrated form and has to be diluted with four parts of water to achieve the required concoction. The system is made ready by simply mixing water and the agent in prescribed proportions. One is required to mix 10 ltrs of Sodium Hypochlorite (2 cans of 5 ltrs) with 40 ltrs of water and the system is ready for action.

3.2 c) Motorised Pump Based 100 Litres System

i) About the System

The 100 ltrs Ceasefire low pressure mist based pump type area sanitization equipment holds a large volume of decontamination agent and can be used for long haul operations.

The system has a 100 ltrs container body that holds an equal amount of the decontamination mix. The system has an in-built motorised pump that needs to be connected to a direct power source. On switching on the power the pump pressurises the decontamination mix forcing it out of the cylinder through a specially designed gun.

This gun breaks down the decontamination agent into tiny droplets that cover a large surface area, ensuring an effective sterilizing of the premises. The gun is equipped with a long throw that allows wide coverage of the concerned premises.

USP of the system is that one can use the system as many times by simply plugging it in to a power supply.

This 100 ltrs motorised system is designed to give you 120 minutes of continuous discharge in a single application. When the disinfectant solution is over, simply top it up again and continue sanitisation again.

ii) How to make the system combat ready?

The Ceasefire 100 ltrs Low Pressure Mist Based Area Sanitization Equipment is offered along with a potent disinfectant agent called Sodium Hypochlorite.

Four cans of 5 ltrs of Sodium Hypochlorite solution is provided with the system. The Sodium Hypochlorite solution comes in the concentrated form and has to be diluted with four parts of water to achieve the required concoction. The system is made ready by simply mixing water and the agent in prescribed proportions. One is required to mix 20 ltrs of Sodium Hypochlorite (4 cans of 5 ltrs) with 80 ltrs of water and the system is ready for action.

4. The Ceasefire SafePro Kit and Accessories:

While keeping the surfaces decontaminated is the key to control COVID virus, the safety and well-being of the front liners who have taken up arms against the disease for the safety of rest is crucial as well.

To keep these fighters secure, the Ceasefire Mist based Sanitization Systems come with a specially designed Safety Kit.

4.1) Ceasefire SafePro Kit Components:

- Disposable Gloves 60 pairs
- Protective Eyewear– 4 pcs
- Disposable Mask- 60 pcs
- Head Protection Gear- 60 pcs

4.2) Accessories:

- 900 ml can of Sodium Hypochlorite 5%
- 5 ltrs can of Sodium Hypochlorite 5%
- 2 ltrs Compressed Air Cylinder (Mild Steel)
- 6ltrs Compressed Air Cylinder (Mild Steel)

5. Technical Specifications

5.1) 9Ltrs Portable Low Pressure Mist Based Area Sanitization Equipment

Product Name	Portable Backpack Low Pressure Mist Based Area
	Sanitization Equipment
	The equipment consists of a main cylinder for Sanitization
	Solution, one compressed air cylinder, one spare
Description	compressed air cylinder, one atomizing gun. Pressure
	Reducer, and backpack arrangement to carry the equipment
	on user's back. The equipment uses low pressure Watermist
	with 1% Sodium Hypochlorite solution to sanitize areas.

A) Cylir	nder for Solution	
i)	Material of Construction (SS)	Stainless Steel 316L
ii)	Operating Pressure (≤ 15 bar)	Approx. 8 Bar
iii)	Pressure Tested to by OEM	35 Bar
iv)	Pressure gauge on Cylinder	Provided
v)	Pressure release Valve	Provided
vi)	Color	Blue
vii)	Capacity in litres	9L
viii)	Gross weight of filled system	24.8 Kg.
B) Com	pressed Air Cylinder	
i)	Material of Construction	Mild Steel 34CrMo4
ii)	Pressurised to	200 Bar
iii)	Capacity	2 liter
iv)	Pressure tested to	334 Bar
v)	Approvals	PESO & IS Approval
vi)	This compressed air cylinder can be used how many times without refilling with this equipment	Upto 12 Times*
C)	System Operating time	Minimum 9 Minutes
	Flow rate (lpm)	Maximum 1 lpm
D) Gun	Assembly	
i)	Material of Construction of Gun (SS)	Stainless Steel 304
ii)	Type of Nozzle	Spray Mist Nozzle
iii)	Gun Weight	Approx. 1.6 kg
iv)	Hose Pipe Length (minimum 1 meter)	1.2 Meter
E) CERT	TIFICATION to be submitted alon	g with supplies
i)	PESO approval for Compressed Air Cylinder.	
ii)	OEM own test report for 35 bar pressure test for solution cylinder.	

^{*} The quality of throw and the repeated use of the air cylinder is subjected to following majors.

- Ensure that the cylinder is filled with precisely 9 litre of 1% Solution. If it is more than 9 litre, i) the air space available will shrink and therefore, the equipment will not perform on expected lines.
- ii) If 1% Solution is under filled i.e. less than 9 liters, the equipment will consume more volume of air and therefore, the repeated use of air cylinder will climb-down.

Also ensure that after pressurizing the equipment at 8 Bar the valve of air cylinder is closed iii) tightly. If it is not fully closed the air will escape into the equipment drastically reducing air bank in the air cylinder.

5.2) 9Ltrs Trolley Mounted Low Pressure Mist Based Area Sanitization Equipment

Product N	ame	Trolley Mounted 9 Ltrs. L.P. Mist Based Area Sanitization Equipment
Description		The equipment consists of a main cylinder for Sanitization Solution, one compressed air cylinder, one spare compressed air cylinder, one atomizing gun with a Spray mode. Trolley arrangement to carry the equipment easily. The equipment uses low pressure Watermist with 1% Sodium Chlorite solution to sanitize areas.
A) Cylinde	r for Solution	
i)	Material of Construction	Stainless Steel 316L
ii)	Operating Pressure	Approx. 8 Bar
iii)	Pressure Tested by OEM	35 Bar
iv)	Pressure gauge on Cylinder	Provided
v)	Pessure release Valve	Provided
vi)	Color	Cool Blue
vii)	Filter in Water Inlet	Provided
viii)	Dimension of Product (LxBxH)	Approx. 520 mm x 460 mm x 990 mm
B) Trolley Speciifcation		
i)	Material of Construction	Mild Steel
ii)	Fixed Wheel Size	300 x 50 mm (2 Nos)
iii)	Revolving Wheel Size	150 x 50 mm (1 Nos)
iv)	Gun Holder	Provided
v)	Carrying Handle	Provided
vi)	Height of Trolley	Approx. 990 mm
C) Compressed Air Cylinder		
i)	Material of Construction	Mild Steel 34CrMo4
ii)	Pressurised to	200 Bar
iii)	Capacity	2 liter
iv)	Pressure tested to	334 Bar
v)	Approvals	PESO & IS Approval
vi)	This compressed air cylinder can be used how many times without refilling with this equipment	Upto 12 Times *

D) System Specification		
i)	Operating Time	Minimum 9 Minutes
ii)	Flow rate (lpm)	Maximum 1 lpm
iii)	Gross Weight	Approx. 38.5 KG
iv)	Chemical Name	Sodium Hypochlorite 5%
v)	Solution	Solution of 1% Sodium Hypochlorite 1.8 Ltr (Sodium Hypochlorite 5%) + 7.2 Ltr (Water)
vi)	Commencement of Discharge	Within 5 sec
vii)	Opertaing Lever	Squeeze Grip Type or Hand lever Type
viii)	Range of Throw	≥ 2 Meter
ix)	Discahrge Percentage	Minimum 90 %
E) Dischai	rge Mechanism	
i)	Material of Construction	Stainless Steel 304
ii)	Type of Nozzle	Spray Mist Nozzle
iii)	Filter in Nozzle	Provided
iv)	Gun / Ball Valve Assembly Weight	Maximum 2.0 kg
v)	Hose Pipe Length	Minimum 1 meter
i)	PESO approval for Com	pressed Air Cylinder.
ii)	OEM own test report for 35 bar pressure test for solution cylinder.	

^{*} The quality of throw and the repeated use of the air cylinder is subjected to following majors.

Ensure that the cylinder is filled with precisely 9 litre of 1% Solution. If it is more than 9 litre,

- the air space available will shrink and therefore, the equipment will not perform on expected lines.
- ii) If 1% Solution is under filled i.e. less than 9 liters, the equipment will consume more volume of air and therefore, the repeated use of air cylinder will climb-down.
- Also ensure that after pressurizing the equipment at 8 Bar the valve of air cylinder is closed iii) tightly. If it is not fully closed the air will escape into the equipment drastically reducing air bank in the air cylinder.

5.3) 45 Ltrs Trolley Mounted Low Pressure Mist Based Large Area Sanitization Equipment

Product Name		Trolley Mounted Low Pressure Mist Based Large	
		Area Sanitization Equipment	
		The equipment consists of a main cylinder for	
		Sanitization Solution, one compressed air	
	Description	cylinder, one spare compressed air cylinder, one	
		atomizing gun, Pressure Reducer and trolley	
		arrangement to carry the equipment easily. The	
		equipment uses low pressure Watermist with 1%	
A) Cylind	ler for Solution	Sodium Hypochlorite solution to sanitize areas.	
i)	Material of Construction (SS)	Stainless Steel SS 304	
ii)	Operating Pressure	Approx 13 Bar	
	· · · · · · · · · · · · · · · · · · ·		
iii)	Pressure Testing done by OEM on cylinder	30 Bar	
iv)	Pressure gauge on Cylinder	Provided	
v)	Pressure release Valve	Provided	
vi)	Color	Blue	
vii)	Material of construction of trolley	Mild Steel	
viii)	Capacity in litres	45 L	
ix)	Gross weight of filled system	98 Kg	
B) Comp	ressed Air Cylinder		
i)	Material of Construction	Mild Steel 34CrMo4	
ii)	Pressurised to	300 Bar	
iii)	Capacity	6 Liter	
iv)	Pressure tested to	500 Bar	
v)	Approvals	PESO & IS Approval	
vi)	This compressed air cylinder can be		
	used how many times without	Upto 12 Times*	
	refilling with this equipment		
C)	System Operating time	Minimum 45 Minutes	
	Flow rate (lpm)	Maximum 1 lpm	
D) Gun A	D) Gun Assembly		
i)	Material of Construction of Gun (SS)	Stainless Steel SS 304	
ii)	Type of Nozzle	Spray Mist Nozzle	
iii)	Gun Weight	Approx. 1.6 kg	
iv) Hose Pipe Length		5 meter	
E) CERTII	FICATION to be submitted along with su	ipplies	
i)	i) PESO approval for Compressed Air Cylinder.		
ii)	OEM own test report for 30 bar pressure test for solution cylinder.		

- * The quality of throw and the repeated use of the air cylinder is subjected to following majors.
- Ensure that the cylinder is filled with precisely 45 ltrs of 1% Solution. If it is more than 45 ltrs, the air space available will shrink and therefore, the equipment will not perform on expected lines
- ii) If 1% Solution is under filled i.e. less than 45 ltrs, the equipment will consume more volume of air and therefore, the repeated use of air cylinder will climb-down.
- Also ensure that after pressurizing the equipment at 13 Bar the valve of air cylinder is closed iii) tightly. If it is not fully closed the air will escape into the equipment drastically reducing air bank in the air cylinder.

5.4) 9Ltrs Trolley Mounted Low Pressure Mist Based Area Sanitization Equipment (Motorised Pump Based)

Product	: Name	Trolley Mounted 9 Ltrs. L.P. Mist Based Area
		Sanitization Equipment
		The equipment consists of a main cylinder for
		Sanitization Solution, one self-priming pump, one
Descrip	tion	electric cable reel, one atomizing gun with Spray
		mode. Trolley to carry the equipment easily. The equipment uses low pressure Watermist with 1%
		Sodium Hypochlorite solution to sanitize areas.
A) Cylir	der for Solution	Sociali Hypochionic Solution to Sanitize areas.
i)	Material of Construction	Stainless Steel 316L
ii)	Pressure Tested by OEM	35 Bar
iii)	Color	Cool Blue
v)	Filter in Water Inlet	Provided
vi)	Dimension of Product (LxBxH)	Approx. 670 mm x 500 mm x 990 mm
B) Troll	ey Specification	
i)	Material of Construction	Mild Steel
ii)	Fixed Wheel Size	300 x 50 mm (2 Nos)
iii)	Revolving Wheel Size	150 x 50 mm (1 Nos)
iv)	Gun Holder	Provided
v)	Carrying Handle	Provided
vi)	Height of Trolley	Approx. 990 mm
C) Self I	Priming Pumps	
i)	Motor Rating (HP)	0.5 HP
ii)	Pipe Size (Suc. X Del.)	25 x 25
iii)	Rated RPM	2700
iv)	Rated Voltage	220 Volt
v)	Full Load Current (Amp.)	2 Amp
vi)	Power Supply	Single Phase
vii)	Capacitor Rating	10mfd
viii)	Ball Bearing	6202 ZZ

D) Electric Cable Reel Specification (Manual / Ratchet Type)		
i)	Type of Cable Reel	Manual or Ratchet Type
ii)	Material of Reel	Shock Resistant Plastic
iii)	Electrical Wire Specification	1.5 Sqmm 3 Core Cable (ISI Marked)
iv)	Length of Cable	Minimum 15 meter
E) Syste	m Specification	
i)	Operating Time	Minimum 10 Minutes
ii)	Flow rate (lpm)	Maximum 0.9 lpm
iii)	Gross Weight	Approx. 51.90 KG
iv)	Chemical Name	Sodium Hypochlorite 5%
v)	Solution	Solution of 1% Sodium Hypochlorite 1.8 Ltr (Sodium Hypochlorite 5%) + 7.2 Ltr (Water)
vi)	Commencement of Discharge	Within 5 sec
vii)	Opertaing Lever	Squeeze Grip Type or Hand lever Type
viii)	Range of Throw	≥ 2 Meter
ix)	Discahrge Percentage	Minimum 90 %
F) Disch	arge Mechanism	
i)	Material of Construction	Stainless Steel 304
ii)	Type of Nozzle	Spray Mist Nozzle
iii)	Filter in Nozzle	Provided
iv)	Gun / Ball Valve Assembly Weight	Maximum 2.0 kg
v)	Hose Pipe Length	Minimum 1 meter
G) Push	Button (ISI Mark)	
i)	Amp Rating	6 Amp
ii)	Rated Voltage	220 Volt

5.5) 50Ltrs Trolley Mounted Low Pressure Mist Based Area Sanitization Equipment (Motorised Pump Based)

Product Name		Trolley Mounted 50 Ltrs. L.P. Mist Based Area Sanitization	
		Equipment	
		The equipment consists of a main cylinder for Sanitization	
		Solution, one self-priming pump, one electric cable reel, one	
Desc	cription	atomizing gun with Spray mode. Trolley to carry the equipment	
		easily. The equipment uses low pressure Watermist with 1%	
		Sodium Hypochlorite solution to sanitize areas.	
A) Cylinder for Solution			
٠,	Material of Construction of		
i)	Main Cylinder	Plastic	
,	Material of Construction of	St. I St. 1204	
ii)	External Cover of Cylinder	Stainless Steel 304	
iii)	Color	Cool Blue	
iv)	Drainage for Residual	Provided	
v)	Filter in Water Inlet	Provided	

vi)	Dimension of Product (LxBxH)	Approx. 740 mm x 530 mm x 1290 mm	
B) Tr	B) Trolley Specification		
i)	Material of Construction	Mild Steel	
ii)	Fixed Wheel Size	300 x 50 mm (2 Nos)	
iii)	Revolving Wheel Size	150 x 50 mm (2 Nos)	
iv)	Gun Holder	Provided	
v)	Carrying Handle	Provided	
vi)	Height of Trolley	Approx. 1290 mm	
C) Se	elf Priming Pumps		
i)	Motor Rating (HP)	0.5 HP	
ii)	Pipe Size (Suc. X Del.)	25 x 25	
iii)	Rated RPM	2700	
iv)	Rated Voltage	220 Volt	
v)	Full Load Current (Amp.)	2 Amp	
vi)	Power Supply	Single Phase	
vii)	Capacitor Rating	10mfd	
viii)	Ball Bearing	6202 ZZ	
D) El	ectric Cable Reel Specification	(Manual / Ratchet Type)	
i)	Type of Cable Reel	Manual or Ratchet Type	
ii)	Material of Reel	Shock Resistant Plastic	
iii)	Electrical Wire Specification	1.5 Sqmm 3 Core Cable (ISI Marked)	
iv)	Length of Cable	Minimum 15 meter	
E) Sy	stem Specification		
i)	Operating Time	Minimum 60 Minutes	
ii)	Flow rate (lpm)	Maximum 0.833 lpm	
iii)	Gross Weight	Approx. 101 KG	
iv)	Chemical Name	Sodium Hypochlorite 5%	
v)	Solution	Solution of 1% Sodium Hypochlorite 10 Ltr (Sodium Hypochlorite 5%) + 40 Ltr (Water)	
vi)	Commencement of Discharge	Within 5 sec	
vii)	Operating Lever	Squeeze Grip Type or Hand lever Type	
viii)	Range of Throw	≥ 2 Meter	
ix)	Discharge Percentage	Minimum 90 %	
F) Di	scharge Mechanism		
i)	Material of Construction	Stainless Steel 304	
ii)	Type of Nozzle	Spray Mist Nozzle	
iii)	Filter in Nozzle	Provided	
iv)	Gun / Ball Valve Assembly Weight	Maximum 2.0 kg	
v)	Hose Pipe Length	Minimum 1 meter	
G) Pu	ush Button (ISI Mark)		
i)	Amp Rating	6 Amp	
ii)	Rated Voltage	220 Volt	

5.6) 100Ltrs Trolley Mounted Low Pressure Mist Based Area Sanitization Equipment (Motorised Pump Based)

Prod	uct Name	Trolley Mounted 100 Ltrs. L.P. Mist Based Area Sanitization Equipment	
Description		The equipment consists of a main cylinder for Sanitization Solution, one self-priming pump, one electric cable reel, one atomizing gun with Spray mode. Trolley to carry the equipment easily. The equipment uses low pressure Watermist with 1% Sodium Hypochlorite solution to sanitize areas.	
A) Cy	linder for Solution		
i)	Material of Construction of Main Cylinder	Plastic	
ii)	Material of Construction of External Cover of Cylinder	Stainless Steel 304	
iii)	Color	Cool Blue	
iv)	Drainage for Residual	Provided	
v)	Filter in Water Inlet	Provided	
vi)	Dimension of Product (LxBxH)	Approx. 760 mm x 530 mm x 1290 mm	
B) Tr	olley Specification		
i)	Material of Construction	Mild Steel	
ii)	Fixed Wheel Size	300 x 50 mm (2 Nos)	
iii)	Revolving Wheel Size	150 x 50 mm (2 Nos)	
iv)	Gun Holder	Provided	
v)	Carrying Handle	Provided	
vi)	Height of Trolley	Approx. 1290 mm	
C) Se	C) Self Priming Pumps		
i)	Motor Rating (HP)	0.5 HP	
ii)	Pipe Size (Suc. X Del.)	25 x 25	
iii)	Rated RPM	2700	
iv)	Rated Voltage	220 Volt	
v)	Full Load Current (Amp.)	2 Amp	
vi)	Power Supply	Single Phase	
vii)	Capacitor Rating	10mfd	
viii)	Ball Bearing	6202 ZZ	
D) El	D) Electric Cable Reel Specification (Manual / Ratchet Type)		
i)	Type of Cable Reel	Manual or Ratchet Type	
ii)	Material of Reel	Shock Resistant Plastic	
iii)	Electrical Wire Specification	1.5 Sqmm 3 Core Cable (ISI Marked)	
iv)	Length of Cable	Minimum 15 meter	
E) System Specification			
i)	Operating Time	Minimum 120 Minutes	
ii)	Flow rate (lpm)	Maximum 0.833 lpm	

iii)	Gross Weight	Approx. 160 KG			
iv)	Chemical Name	Sodium Hypochlorite 5%			
v)	Solution	Solution of 1% Sodium Hypochlorite 20 Ltr (Sodium Hypochlorite 5%) + 80 Ltr (Water)			
vi)	Commencement of Discharge	Within 5 sec			
vii)	Operating Lever	Squeeze Grip Type or Hand lever Type			
viii)	Range of Throw	<u>></u> 2 Meter			
ix)	Discharge Percentage	Minimum 90 %			
F) Di	F) Discharge Mechanism				
i)	Material of Construction	Stainless Steel 304			
ii)	Type of Nozzle	Spray Mist Nozzle			
iii)	Filter in Nozzle	Provided			
iv)	Gun / Ball Valve Assembly Weight	Maximum 2.0 kg			
v)	Hose Pipe Length	Minimum 1 meter			
G) P	G) Push Button (ISI Mark)				
i)	Amp Rating	6 Amp			
ii)	Rated Voltage	220 Volt			

5.7) Material Safety Data Sheet (MSDS) - Sodium Hypochlorite

Product Names: Liquid Chlorine Solution, Liquid Bleach, Hypochlorite, Hypo and Chlorine Bleach. **Listed Strengths:** 10.5%, 12.5% and 15% **CAS Number:** 7681-52-9

Date MSDS Revised: August 2007 (previous revision 11/04)

Product Use: Disinfectant and sanitizer, see product label for all approved uses & instructions.

NSF Approval: Yes. Certified to NSF/ANSI Standard 60. Maximum use in Potable Water is 84 mg/L for 12.5%

bleach and 100 mg/L for 10.5% bleach.

NSF Non-Food Compounds Approval: Yes

SECTION 2 HAZARD INGREDIENTS/IDENTITY INFORMATION

Hazardous Ingredient(s): % (w/w) as Sodium Hypochlorite: 10.5-16%

Exposure Standards: None established for Sodium Hypochlorite, as Chlorine exposure standards are:

 PEL (OSHA):
 1 ppm as Cl₂
 3 ppm as Cl₂
 3 ppm as Cl₂

 TLV (ACGIH):
 0.5 ppm as Cl₂
 TWA (ACGIH):
 0.5 ppm as Cl₂

 WEEL (AIHA):
 2 mg/m3, 15 minute TWA as Cl₂
 STEL (ACGIH):
 1 ppm as Cl₂

Emergency Overview: May cause burns to the eyes, skin and mucous membranes.

SECTION 3 PHYSICAL/CHEMICAL CHARACTERISTICS

Alternate Name(s):	Bleach
Chemical Name:	Sodium Hypochlorite
Chemical Family:	Oxidizing Agent
Molecular Formula:	Na-O-Cl
Form:	Liquid
Appearance:	Water clear to a slight greenish-yellow, or light yellow aqueous solution
Odor:	Chlorine odor
pH:	11-14, dependent upon % weight as Sodium Hypochlorite
Vapor Pressure:	Not available
Vapor Density (Air=1):	Not available
Boiling Point:	Approximately 230° F (110° C)
Freezing Point:	14 F(8% w/w Cl ₂ solution), 7 F(10% w/w Cl ₂ solution), -3 F (12% w/w Cl ₂ solution)
Solubility (Water):	Completely Soluble
Solubility (Other):	Reacts with Many Organic Solvents
Density:	Appx. 10 lbs. per gallon
Evaporation Rate:	Not Available
Specific Gravity:	1.126 (8% w/w Cl ₂ solution), 1.163 (10% w/w Cl ₂ solution), 1.202 (12% w/w Cl ₂ solution),
	1.25 (15% w/w Cl ₂ solution)
Molecular Weight:	74.5

SECTION 4 STABILITY & REACTIVITY DATA

Chemical Stability	Stable X	Unstable

Incompatibility (Conditions to Avoid): Stability decreases with heat and light exposure.

Incompatibility (Materials to Avoid): May react violently with strong acids. Other incompatibles include strong caustics, ammonia, urea, reducing agents, organics, ether and oxidizable materials. Reaction with metals (nickel, iron, cobalt and copper) may produce oxygen gas, which supports combustion. May react with organohalogen compounds to

form spontaneously combustible compounds. May react explosively with nitro- and chloro-organic compounds as well as acids and reducing agents. Acidification liberates chlorine gas.

Hazardous Decomposition or Byproducts: Chlorine gas. Decomposes with heat and reacts with acids. Hazardous gases/vapors produced are hypochlorous acid, chlorine and hydrochloric acid. Composition depends upon temperature and decrease in pH. Additional decomposition products, which depend on pH, temperature and time, are sodium chloride and chlorate, and oxygen.

No Mechanical Shock or Impact No Static Discharge Oxidizer: No if <12% by weight,
Yes if > than 12% by weight
Hazardous Polymerization May Occur ____ Will Not Occur __X_

Note: Sodium Hypochlorite reacts violently with amines and ammonium salts. Solutions are reactive with common cleaning products such as toilet bowl cleaners, rust removers, vinegar, acids, organics and ammonia products to produce hazardous gases such as chlorine and other chlorinated species.

SECTION 5 POTENTIAL HEALTH EFFECTS AND FIRST AID INFORMATION

GENERAL: May cause immediate pain. Exposure to the skin may cause sensitization or other allergic responses. If the eye is not irrigated immediately after it has been exposed permanent eye damage may occur. Strict adherence to first aid measures following any exposure is essential. SPEED IS ESSENTIAL!

ROUTE(S) OF ENTRY AND POTENTIAL	EMERGENCY & FIRST AIDE PROCEDURES
HEALTH EFFECTS	
INHALATION: Strong irritating to mucous membranes in the nose, throat and respiratory tract. Prolonged contact can cause chronic irritation, pulmonary edema and central nervous system depression. Repeated inhalation exposure may cause impairment of lung function and permanent lung damage.	If inhaled, move expose person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. If breathing is difficult, have trained person administer oxygen. Call a poison control center or medical physician for further treatment advice. Have the product label or MSDS with you when calling or going for medical treatment.
SKIN CONTACT: Prolonged and repeated exposure to dilute solutions often causes irritation, redness, pain and drying and cracking of the skin. Human evidence has indicated that an ingredient in this product can cause skin sensitization. Depending upon the concentration and how soon after exposure the skin is washed with water, skin contact may cause burns and tissue destruction.	If on skin or clothing, take off all contaminated clothing and rinse skin immediately with plenty of water for 15-20 minutes. If irritation persists, repeat flushing. Do not transport victim unless the recommended irrigation period is completed unless flushing can be continued during transport. Call a poison control center or medical physician for treatment advice. Have the product label or MSDS with you when calling or going for medical treatment.
EYE CONTACT: Strongly irritating to eyes. Exposure to vapor can cause tearing, conjunctivitis and burning of the eyes. Eye contact may cause a corneal injury. The severity of the effects depend on the concentration and how soon after exposure the eyes are washed with water. In severe exposure cases, glaucoma, cataracts and permanent blindness may occur.	If in eyes, hold eye open and rinse slowly and gently with plenty of water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye for 10-15 minutes. Do not transport victim until the recommended flushing period is completed unless irrigation can be continued during transport. Call a poison control center or medical physician for further treatment advice. Have the product label and/or MSDS with you when calling or going to medical treatment.
INGESTION: Corrosive. Can cause severe corrosion of and damage to the gastrointestinal tract (including mouth, throat, and esophagus). Exposure is characterized by nausea, vomiting, abdominal pain, diarrhea, bleeding, and/or tissue ulceration.	If swallowed, call poison control center or medical physician immediately for treatment advice. Have the product label or MSDS with you when calling or going for medical treatment. Have exposed person sip a glass of water if able to swallow, and dilute immediately by giving milk, melted ice cream, starch paste or antacids such as milk of magnesia. Avoid sodium bicarbonate because of carbon dioxide release. DO NOT INDUCE VOMITING, LAVAGE OR ACIDIC ANTIDOTES unless told to do so by poison control center or medical physician. DO NOT give anything by mouth to an unconscious person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water.

NOTE TO PHYSICIAN(S): Pre-existing medical conditions may be aggravated by exposures affecting target organs. There are no known chronic effects. Probable mucosal damage may contraindicate the use of gastric lavage. In addition to the alkalinity of this product, the continued generation of chlorine gas after ingestion can damage further the stomach mucous, depending on the amount ingested. Consideration may be given to removal of the product from the stomach, taking care to avoid perforation of esophagus or stomach. An ounce of 1% sodium thiosulfate or milk of magnesia is helpful.

SECTION 6 TOXICOLOGICAL DATA

ANIMAL DATA: Inhalation 0.25-hour LC50 - 10.5 mg/L in rats; Acute Dermal LD50 - 10,000 mg/kg in rabbits; Acute Oral LD50 - 8910 mg/kg in rats

SUMMARY: The concentrated solution is corrosive to skin, and a 5% solution is a severe eye irritant. Solutions containing more than 5% available chlorine are classified by DOT corrosive (please see section 10 of this MSDS). Toxicity described in animals from single exposures by ingestion include muscular weakness, and hypoactivity. Repeated ingestion exposure in animals caused an increase in the relative weight of adrenal glands in one study, but no pathological changes were observed in two other studies. Long-term administration of compound in drinking water of rats caused depression of the immune system. No adverse changes were observed in an eight week dermal study of a 1% solution in guinea pigs. Tests in animals demonstrate no carcinogenic activity by either the oral or dermal routes. Tests in bacterial and mammalian cell cultures demonstrate mutagenic activity.

CARCINOGENICITY: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as carcinogen.

MUTAGENICITY: Sodium Hypochlorite has been shown to produce damage to genetic material when tested in vitro. Studies in vivo have shown no evidence of mutagenic potential for this material. It is judged that the risk of genetic damage is insignificant for sodium hypochlorite because of its biological activity, lack of mutagenicity in vivo, and failure to produce carcinogenic response.

SECTION 7 FIRE AND EXPLOSION HAZARD DATA				
Flash Point: This product does not flash		Flammable Limits (Lower): Not Applicable		
Flammable Limits (Upper): Not Applicable		Auto Ignition Temperature: Not Applicable		
Decomposition Temperature: Not A	Applicable		Rate of	Burning: Not Available
Explosive Power: Not Available	Sensitivity to N	lechanical	Impact:	Sensitivity to Static Discharge:
	Not expected t	o be sens	itive to	Not expected to be sensitive to
	mechanical impa	ct		static discharge
Fire and Explosion Hazards: This material is non-flammable but is decomposed by heat and light, causing a pressure build-up which could result in an explosion. When heated, it may release chlorine gas or hydrochloric acid. Vigorous reaction with oxidizable or organic materials may result in fire.		Extinguishing Media: Use agents appropriate for surrounding fire. Foam, dry chemical, carbon dioxide, water fog or spray. If leak or spill has not ignited, use water spray to disperse the vapors and to protect persons attempting to stop the leak.		
Fire Fighting Procedures: Water spray should be used to cool containers and may be used to knock down escaping vapor. Remove storage vessels from the fire zone.		clothing, incorporation	cluding a paratus, n Toxic g	ctive Equipment: Full protective NIOSH approved self-contained nust be worn in a fire involving this as vapors are produced upon

SECTION 8 ECOLOGICAL INFORMATION

The toxicity and corrosivity of this product is a function of concentration and the concentration's pH.

ECOTOXICOLOGICAL INFORMATION: Toxic to aquatic life. 96-hour LC50: fathead minnows: 0.090-5.9 mg/L, bluegill sunfish: 0.10-2.48 mg/L, shore crab: 1.418 mg/L, grass shrimp: 52.0 mg/L, scud: 0.145-4.0 mg/L, water flea: 2.1 mg/L.

ENVIRONMENTAL EFFECTS: Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers. May be an aesthetic nuisance due to color. Mammals and birds, exposed wildlife would be subject to skin irritation and burns due to the corrosive nature of this material.

SECTION 9 DISPOSAL CONSIDERATIONS

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State, and Local regulations. Do not burn. Do not flush to surface water or sanitary sewer system. If pH of material is equal to or greater than a 12.5, the material is a RCRA Hazardous Waste D002, corrosive.

SECTION 10 TRANSPORT INFORMATION

U.S. DOT Basic Shipping Description: Hypochlorite Solutions, 8, UN1791, III

U.S. DOT Hazardous Substance: Yes, RQ 100 pounds (Sodium Hypochlorite)

U.S. DOT Marine Pollutant: No

U.S. DOT Required Label: Corrosive (see column 6, 49 CFR §172.101)

U.S. DOT Packaging Exception: Yes, if package meets the criteria of a limited quantity or consumer commodity as defined by 49 CFR §171.8, §173.144 and .154, and §172.312 and .316

N. AMERICAN EMERGENCY GUIDE PAGE NUMBER: 154

Transportation Emergency Phone Numbers: CHEMTREC 1-800-424-9300

SECTION 11 PRECAUTIONS FOR SAFE HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Take all precautions to avoid personal contact. Keep container closed except when transferring material. Locate safety shower and eyewash station close to chemical handling area. Use normal good industrial hygiene and housekeeping practices, wash thoroughly after handling. Store in a cool, dry, well-ventilated area, away from incompatibles (minimum distance of 20-25 feet per NFPA Code 1) and direct sunlight. Keep container properly labeled at all times. Vented containers must be used and must be kept closed when not

being used. Long-term storage is impossible without decomposition. Only use containers made from tinted glass, polyethylene & FRP. Keep out of reach of children.

PROCESS HAZARDS: Not Available

STORAGE TEMPERATURE: Store containers below 29°C and above freezing point. Do not expose sealed containers above 40°C. Try to store in the dark at the lowest possible temperature, but keep from freezing, to slow-down decomposition.

SECTION 12 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Full handling precautions should be taken at all times. Provide good room ventilation plus local exhaust at points of emission and low level floor exhaust in immediate handling area. Where engineering controls are not feasible, use adequate local exhaust ventilation wherever mist, spray or vapor may be generated.

PERSONAL PROTECTIVE EQUIPMENT:

Eye: Use chemical safety goggles when there is potential for contact (splashing), faceshield recommended – ANSI Z87.1

Skin: Gloves and protective clothing (apron, boots, and bodysuits) made from rubber, vinyl, neoprene or PVC. Standard work clothing closed at the neck and wrist while wearing impervious equipment.

Respiratory (Specify Type): A NIOSH/MSHA approved air purifying respirator with an acid gas cartridge or canister may be permissible under circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is potential for uncontrolled releases, exposure levels are not known, or other circumstances where air purifying respirators may not provide adequate protection.

Other: Eyewash, shower station (ANSI Z358.1) must be provided within the immediate work area.

SECTION 13 ACCIDENTAL RELEASE MEASURES

Ventilate enclosed area. Collect product for recovery or disposal. For release to land, contain discharge by constructing dikes or applying inert absorbent; for release to water, utilize damming and/or water diversion to reduce the spread of contamination; and, for release to air, vapors may be suppressed by the use of a water fog. All run-off water must be captured for treatment and disposal. Collect contaminated soil and water, and absorbent for disposal. Notify applicable government authority if release is reportable or could adversely affect the environment. Please follow all Local, State and Federal Laws for clean-up and disposal of all contaminated material. **Deactivating Chemicals:** Sodium Sulfite, Sodium Thiosulfate and Sodium Bisulfite.

SECTION 14 REGULATORY INFORMATION

OSHA CLASSIFICATION, 29 CFR §1900-1910:

Physical Hazards: Reactivity Health Hazards: Acute - Skin Sensitizer, Corrosive

CERCLA AND SARA REGULATIONS, 40 CFR §300-373:

Reportable Quantity = 100 lb. CERCLA Hazardous Material: Yes

Title III Hazard Classifications: Acute - yes, Chronic - no, Fire - yes, Reactivity - yes & Sudden Release of

Pressure - No. This product may be reportable under the requirements of 40 CFR §370.

SARA Extremely Hazardous Substance: No SARA Toxic Chemical: No CA Prop 65: No

FDA 21 CFR 178.1010: Yes, Approved as Sanitizer

NSF Whitebook (former USDA Approval) Listing: Aqua Guard Chlorinating Sanitizer 10.5% - 3D, B1, B2, D1, D2, G4, G7, GX, Q4, Aqua Guard Bleach 12.5% - 3D, B1, B2, D1, D2, G4, GX, Q4

EPA "CLEAN AIR ACT": This product does not contain nor is it manufactured with ozone depleting substances. It is not defined as a Hazardous Air Pollutant per 40 CFR 112.

EPA Pesticide: The 10.5% and 12.5% sodium hypochlorite products are registered with the U.S. EPA as a pesticide, as required under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). It is a violation of Federal law to use this product for pesticidal applications in a manner inconsistent with the FIFRA labeling.

NPCA-HMIS RATING: HEALTH: 3 FLAMMABILITY: 0 REACTIVITY: 2

NFPA RATING:NONE AT THIS TIME

SECTION 15 REFERENCES

Suppliers' Material Safety Data Sheets and EPA Labeling Requirements

Olin and OxyChem Sodium Hypochlorite Handbook

Chlorine Institute Sodium Hypochlorite Pamphlet #96

Chlorine Institute Product Stewardship Bulletins for Sodium Hypochlorite

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6. Usage Instructions and Precautions

6.1) Instruction to use and precautions to be taken for 45 liter Sanitization Equipment (Air Cartridge Based System):

- 1. Ensure that the cylinder is filled with precisely 45 liter of 1% Solution. If it is more than 45 liter, the air space available will shrink and therefore, the equipment will not perform on expected lines.
- 2. If the mixture is under filled i.e. less than 45 liters, the equipment will consume more volume of air and therefore, the repeated use of air cylinder will climb down.
- 3. Also ensure that after pressurizing the equipment at 13 bar the valve of air cylinder is closed tightly. If it is not fully closed the air will escape into the equipment drastically reducing air bank in the air cylinder.
- 4. To prevent clogging of Nozzle, use mixture which is free from impurities, dust, sediments etc.
- 5. On fulfilling above said four conditions, one propellant cylinder will allow you to use the equipment a minimum of 14 times. Thus in case of 45 liter capacity equipment, one propellant cylinder is capable of spraying $45 \times 14 = 630$ Liter of sanitizer in a fine mist form.

<u>6.2) Instruction to use and precautions to be taken for 9 liter Sanitization Equipment (Air Cartridge Based System):</u>

- 1. Ensure that the cylinder is filled with precisely 9 liter of 1% Solution. If it is more than 9 liter, the air space available will shrink and therefore, the equipment will not perform on expected lines.
- 2. If the mixture is under filled i.e. less than 9 liters, the equipment will consume more volume of air and therefore, the repeated use of air cylinder will climb down.

- 3. Also ensure that after pressurizing the equipment at 8 bar the valve of air cylinder is closed tightly. If it is not fully closed the air will escape into the equipment drastically reducing air bankin the air cylinder.
- 4. To prevent clogging of Nozzle, use mixture which is free from impurities, dust, sediments etc.
- 5. On fulfilling above said four conditions, one propellant cylinder will allow you to use the equipment a minimum of 14 times. Thus in case 44 liter capacity equipment one propellant cylinder is capable of spraying $9 \times 14 = 126$ Liter of sanitizer in a fine mist form.

6.3) Instruction to use and precautions to be taken for 100 liter/50 liter and 9 liter Sanitization Equipment (Motorised Pump Based Systems):

- 1. Fill in 1% solution in various equipments as per its rated capacity. Thus fill 100 liter, 50 liter and 9 liter respectively in equipments having corresponding capacities.
- 2. In case of "Manual Reel" remove the three pin plug from the socket fitted on the reel and after unwinding of wire, refit the same three pin plug in the same socket.

In case where "Anti Twisted Fixed Socket Reel" is fitted this procedure is not required.

- 3. After unwinding the electrical cord connect the system to the appropriate electrical socket and commence the electrical supply.
- 4. One more switch has been provided in the Gun which would get activated as soon as the trigger is pulled and vice-versa.
- 5. Now pull the trigger for discharging the sanitizer. You can control or stop the discharge as many times as you wish just by pulling and releasing the trigger as per your requirements.

- 6. After the activation of trigger the discharge would commence in less than 5 seconds.
- 7. Time taken to discharge the entire quantity of sanitizer would primarily depend on the type of nozzle being used. For example, in case a nozzle bearing number NCSFH 11 R/S is used, the system having capacity of 9 liter, 50 liter and 100 liter would operate for a period of minimum 2 minute, 10 minute & 20 minute respectively. In case a very fine nozzle is used, for similar capacities, you will get effective operation time of close to 18 minute, 100 minute and 200 minute respectively for 9 liter, 50 liter and 100 liter capacity sanitizer.

7. Mandatory Cleaning

7.1) Air Cartridge Based Systems:

The Ceasefire Decontamination Systems use strong disinfecting agents that could be harmful for both, the equipment itself and the environment and thus need to be discarded carefully.

After each disinfecting application, the systems need to be rinsed with clean water and the water after cleaning needs to be drained carefully.

In case of the Ceasefire 9 ltrs Low Pressure Area Decontamination System, the user should rinse the empty container with clean water and drain it by turning the container upside down. The draining of the water after cleaning should be done in a proper wash basin or an area that has dedicated drainage so that the residual water does not harm the surroundings.

In case of the Ceasefire 45 ltrs System, a special ball valve is provided at the base of the container. After each application, the user must rinse the container with clean water and drain out the water by connecting a drainage pipe to the ball valve and ensuring the residual water is discarded in a dedicated drainage so that no harm is caused to the surrounding.

Cleaning the Discharge Gun: The discharge gun is a specialized component of the Ceasefire Decontamination Systems and needs careful cleaning after every application. The user must rinse the stainless steel top of the gun in clean water in an area that has dedicated drainage. This would ensure that the nozzle in the gun remains clean and free of oxidization.

7.2) Motorised Pump Based Systems:

- 1. The container used for 9 liter is made in Stainless Steel and therefore, after every use rinse it with clean water. This rinsing of container is not required for 50 liter and 100 liter capacity equipments since plastic containers have been used.
- 2. The discharge gun is a specialized component of the Ceasefire Decontamination Systems and needs careful cleaning after every application. The user must rinse the stainless steel top of the gun in clean water in an area that has dedicated drainage. This would ensure that the nozzle in the gun remains clean and free of oxidization.
- 3. In case the nozzles get jammed or show inconsistency in discharge, clean the nozzle by dipping it in the concentrated solution of "KIWI Mr. Muscle Dranex Powder".

8. Warning:

- 1. Strictly, use the headgears, glasses, mask and gloves while using this equipment. Also use the sanitizer as supplied only by "Ceasefire" or its authorized distributor.
- 2. Do not mix the solution with acids, amines and ammonia.
- 3. Keep away from the reach of children.
- 4. Dilute the 5% Sodium Hypochlorite in the following quantity.

Capacity	Sodium Hypochlorite	Water
9 Litres	1.8 Litres	7.2 Litres
45Litres	9 Litres	36 Litres
50 Litres	10 Litres	40 Litres
100 Litres	20 Litres	80 Litres

5. Avoid inhalation and direct contact with eyes.

Download the Ceasefire app.







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