



## Material Safety Data Sheet

Kanex- Clean Agent type  
Fire Extinguisher

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** : Clean Agent type Fire Extinguisher  
**Other Trade Names** : DuPont™ FE-36™ fire extinguishing agent  
**Model Nos.** : KCA-2(FE36), KCA-4(FE36), KCA-6(FE36), KCASS-2(FE36),  
KCASS-4(FE36)  
**Manufacturer/Supplier** : M/s. Kanadia Fyr Fyter Pvt. Ltd.  
**Address** : A-110, Kanara Business Center, Laxminagar,  
B/H. Everest Garden Apartment. Ghatkopar (E) Mumbai-75  
**Phone Number** : 022- 67250729

### 2. COMPOSITION/INFORMATION ON THE EXTINGUISHING MEDIUM

Component	CAS-No.	Concentration
1,1,1,3,3,3-Hexafluoropropane(FE-36)	690-39-1	>=99%

### 3. HAZARD IDENTIFICATION

#### Emergency Overview

Misuse or intentional inhalation abuse may lead to death without warning.

Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing. Rapid evaporation of the liquid may cause frostbite.

#### Potential Health Effects

**Skin** : Contact with liquid or refrigerated gas can cause cold burns and frostbite.

**Eyes** : Contact with liquid or refrigerated gas can cause cold burns and frostbite.

**Inhalation** : Misuse or intentional inhalation abuse may cause death without warning symptoms, due to cardiac effects. Other symptoms potentially related to misuse or inhalation abuse are Anesthetic effects, Light-headedness, dizziness, confusion, in coordination, drowsiness, or unconsciousness, irregular heartbeat with a strange sensation in the chest, heart thumping, apprehension, feeling of fainting, dizziness or weakness. Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing.

**Repeated exposure** : Adverse effects from repeated inhalation may include: Altered response to stimuli

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



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## 4. FIRST AID MEASURES

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<b>Skin contact</b>	: Flush area with lukewarm water. Do not use hot water. If frostbite has occurred, call a physician.
<b>Eye contact</b>	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
<b>Inhalation</b>	: If inhaled, remove to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
<b>Ingestion</b>	: Is not considered a potential route of exposure.
<b>Notes to physician</b>	: Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, that may be used in situations of emergency life support should be used with special caution.

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## 5. FIRE FIGHTING MEASURES

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<b>Fire and Explosion Hazard</b>	: Not a fire or explosion hazard. Hazardous gases/vapors produced are: Hydrogen fluoride
<b>Suitable extinguishing media</b>	: This material is a fire extinguishing agent.
<b>Firefighting Instructions</b>	: Wear self-contained breathing apparatus (SCBA). Wear full protective equipment.

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## 6. ACCIDENTAL RELEASE MEASURES

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**NOTE:** Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

**Safeguards (Personnel)** : Keep upwind of leak - evacuate until gas has dispersed.

**Accidental Release Measures** : Do not enter places where used or stored until adequately ventilated.

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## 7. HANDLING AND STORAGE

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**Handling (Personnel)** : Do not breathe gas. Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling. Decomposition will occur when product comes in contact with open flame or electrical heating elements.

**Storage** : Valve protection caps and valve cutlet threaded plugs must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Never attempt to lift cylinder by its cap. Use a pressure reducing regulator when connecting cylinder to lower pressure (>3000 psig) piping or systems. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder. Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Separate full containers from empty containers. Keep at temperature not exceeding 52°C. Avoid area where salt or other corrosive materials are present.



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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls	: Use only with adequate ventilation especially for enclosed and low area where vapors can accumulate. Keep container tightly closed.
Personal protective equipment	: Wear NIOSH approved respiratory protection as appropriate.
Respiratory protection	
Eye protection	: Wear safety glasses or coverall chemical splash goggles.
Skin and body protection	: Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.
Exposure Guidelines	
Exposure Limit Values	
1,1,1,3,3,3-Hexafluoropropane	
AEL *	(DUPONT) 1,000 ppm 8 & 12 hr. TWA
* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.	

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Liquefied gas
Color	: colorless
Odor	: slight, ether-like
Freezing point	: -94 °C (-137 °F)
Boiling point	: -1.44 °C (29.41 °F)
Vapor Pressure	: 2,724 hPa at 25 °C (77 °F)
Density	: 1.3598 g/cm <sup>3</sup> at 25 °C (77 °F) (as liquid)
Specific Gravity	: 1.36 at 25 °C (77 °F)

### 10. STABILITY AND REACTIVITY

Incompatibility	: Strong bases metallic sodium, Potassium, lithium
Hazardous decomposition products	: Hazardous gases/vapors produced are:, Hydrogen fluoride
Hazardous reactions	: Polymerization will not occur.

### 11. TOXICOLOGICAL INFORMATION

1,1,1,3,3,3-Hexafluoropropane	
Dermal	: not applicable
Oral	: not applicable
Inhalation 4 h LC50	: > 457000 ppm , rat
Inhalation	: dog Cardiac sensitization
Skin irritation	: No skin irritation Not tested on animals Not expected to cause skin irritation based on expert review of the properties of the substance.
Eye irritation	: No eye irritation Not tested on animals Not expected to cause eye irritation based on expert review of the properties of the substance.
Skin sensitization	: Does not cause skin sensitization. Not tested on animals Not expected to cause sensitization based on expert review of the properties of the substance. There are no reports of human respiratory sensitization.
Repeated dose toxicity	: Inhalation Rat Reversible, Altered response to stimuli
Carcinogenicity	: Overall weight of evidence indicates that the substance is not carcinogenic.



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<b>Mutagenicity</b>	Did not cause genetic damage in animals. Did not cause genetic damage in cultured mammalian cells. Did not cause genetic damage in cultured bacterial cells.
<b>Teratogenicity</b>	Animal testing showed no developmental toxicity.
<b>Further information</b>	Cardiac sensitization threshold limit : 932751 mg/m3

### 12. ECOLOGICAL INFORMATION

<b>Aquatic Toxicity</b>	<b>1,1,1,3,3,3-Hexafluoropropane</b>
<b>96 h LC50</b>	: Zebra fish 292 mg/l
<b>96 h ErC50</b>	: Pseudokirchneriella subcapitata > 186 mg/l
<b>48 h EC50</b>	: Daphnia magna (Water flea) 299 mg/l
<b>Environmental Fate DuPont™ FE-36™ fire extinguishing agent Biodegradability</b>	: 16 % According to the results of tests of biodegradability this product is not Readily biodegradable.

### 13. DISPOSAL

<b>Waste Disposal</b>	: Can be used after re-conditioning. Reclaim by distillation, incinerate, or remove to permitted waste facility. Comply with applicable Federal, State/Provincial and Local Regulations.
<b>Environmental Hazards</b>	: Empty pressure vessels should be returned to the supplier.

### 14. TRANSPORT INFORMATION

<b>DOT</b>	<b>UN number</b>	: 3163
	<b>Proper shipping name</b>	: Liquefied gas, n.o.s. (1,1,1,3,3,3-Hexafluoropropane)
	<b>Class</b>	: 2.2
	<b>Labeling No.</b>	: 2.2
<b>IATA_C</b>	<b>UN number</b>	: 3163
	<b>Proper shipping name</b>	: Liquefied gas, n.o.s. (1,1,1,3,3,3-Hexafluoropropane)
	<b>Class</b>	: 2.2
	<b>Labeling No.</b>	: 2.2
<b>IMDG</b>	<b>UN number</b>	: 3163
	<b>Proper shipping name</b>	: Liquefied gas, n.o.s. (1,1,1,3,3,3-Hexafluoropropane)
	<b>Class</b>	: 2.2
	<b>Labeling No.</b>	: 2.2

### 15. REGULATORY INFORMATION

<b>SARA 313 Regulated Chemical(s)</b>	: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
<b>California Prop. 65</b>	: Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

### 16. OTHER INFORMATION

	<b>HMIS</b>
<b>Health</b>	: 1
<b>Flammability</b>	: 0
<b>Reactivity/Physical hazard</b>	: 1