



---

## 1. PRODUCT AND COMPANY IDENTIFICATION

---

Product Name : Eversafe Dry Powder Cartridge Operated Portable Fire Extinguisher  
EED-12cMX (Fire Extinguisher Agent)  
Manufacturer/ Supplier : Eversafe Extinguisher Sdn Bhd  
Address : Lot 878, Jalan Subang 9, Taman Perindustrian Subang, 47500  
Subang Jaya, Selangor Darul Ehsan, Malaysia  
Phone Number : +60 3 8024 9898  
Website : [www.eversafe.net](http://www.eversafe.net)  
Date of MSDS Issued : 09 November 2012  
MSDS Number : QA-MSDS-45 (R1)

---

## 2. COMPOSITION / INFORMATION ON THE COMPONENTS

---

### Component Name

- a. Extinguishing Agent: BC Powder  
There are no hazardous components based upon current legislation. Please see section 8 for respirable dust information.
- b. Propellant: Carbon Dioxide, Cartridge  
CAS Number: 124-38-9  
Percentage: >99.0%

---

## 3. HAZARD IDENTIFICATION

---

### Extinguishing Media

Not regarded as a health or environmental hazard under current legislation. No known acute health effects when used as intended

### Propellant

Compressed gas. High concentration may cause asphyxia. Contact with liquid product may cause frostbite  
Contact with eye may cause damage.

**Emergency Overview** - Carbon Dioxide is colorless. At low concentrations, the gas is odorless. At higher concentrations it has a sharp, acidic odor. It was act as an asphyxiant and an irritant. Carbon Dioxide is a powerful cerebral dilator. At concentrations between 2 and 10%, Carbon Dioxide can nausea, dizziness headache, mental confusion, increased blood pressure and respiratory rate. Above 8% nausea and vomiting appear. Above 10%, suffocation and death can occur within minutes. Contact with the cold gas can cause freezing of exposed tissue. Moisture in the air can lead to formation of carbonic acid that can irritate the eyes. All forms of carbon Dioxide are noncombustible. Carbon Dioxide is heavier than air and should not be allowed to accumulate in low lying areas.

**Inhalation** - May cause Rapid Respiration, Muscular Incoordination, Fatigue, Nausea and Vomiting and Unconsciousness.

**Ingestion** - No Information found.

**Skin** - Pressure Drop through Valves and Piping may cause Extreme Cold and Frostbite on Contact No.

**Eye Contact** - No Information found.

---

## 4. FIRST AID MEASURES

---

### Extinguishing Media

Inhalation - Remove casualty from exposure. Provide rest, warmth and fresh air.  
Ingestion - Rinse mouth with water and give plenty of water to drink. Do not induce vomiting.  
Skin contact - Wash the skin immediately with soap and water.



Eye contact - Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes.

If symptoms persist seek medical advice and treat symptomatically

#### **Propellant**

Inhalation- Immediately remove victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen and get medical attention.

Skin contact – If frostbite occurs, flush affected areas with lukewarm water. Do not use hot water. Get medical attention.

Eye contact – No Information found

Ingestion – No Information found

---

## **5. FIRE FIGHTING MEASURES**

---

### **Extinguishing Media**

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a blaze. Keep pressurized extinguishers and surroundings cool with water spray as they may rupture or burst in the heat of a fire.

### **Unusual Fire and Explosion Hazards**

Pressurized containers may explode in heat of fire.

### **Protective Equipment for Fire-Fighting**

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

---

## **6. ACCIDENTAL RELEASE MEASURES**

---

### **Extinguishing Media**

Do not allow to enter public sewers and watercourses. If contamination of drainage systems or watercourses is unavoidable, immediately inform appropriate authorities.

Shovel into dry containers. Cover and move the containers. Vacuum cleaning is recommended to minimize dust formation. Flush the area with water.

### **Propellant**

Evacuate all personnel from affected area. Ensure adequate air ventilation.

---

## **7. HANDLING AND STORAGE**

---

Pressurized extinguishers should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll extinguisher. Do not drop extinguisher or permit them to strike against each other. Never apply flame or localized heat directly to any part of the extinguisher. Store pressurized extinguishers and plastic parts away from high heat sources. Storage area should be cool, dry, well ventilated, under cover and out of direct sunlight.

---

## **8. EXPOSURE CONTROLS/ PERSONAL PROTECTION**

---

### **Extinguishing Media**

Ingredient comments - Product contains respirable Silica which has a MEL of 0.3 mg/m<sup>3</sup> (8 hour TWA).

Personal protection - Use of gloves, goggles and protective clothing is recommended.

Ventilation - Provide sufficient ventilation for operations causing dust formation.

Respirators - Respiratory protection (P1) must be used if air concentration exceeds acceptable level.



Protective gloves - No specific hand protection noted but gloves may be still advisable. Use protective gloves made of Impermeable material.

Eye protection - Wear approved chemical safety goggles where eye exposure is reasonably probable.

#### **Propellant**

#### **Respiratory Protection**

Full-face mask and self-contained breathing apparatus should be available for emergency use.

#### **Eye Protection**

Use safety goggles as appropriate for the job. A face shield is recommended for handling cryogenic liquids.

#### **Skin Protection**

Use protective gloves of any material appropriate for the job. Insulated gloves are recommended for cryogenic liquids.

#### **Other/ General Protection**

Safety shoes.

---

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

---

| <b>Properties</b> | <b>EED-12cMX</b>  |
|-------------------|-------------------|
| Class of Fire     | B, C + Electrical |
| Fire Rating       | 233B              |
| Temperature Range | -20°C to +60°C    |
| Discharge Time    | 17.6 sec approx   |
| Effective Range   | 7m approx         |
| Discharge %       | >90%              |
| Working Pressure  | 12 Bar @ 20°C     |
| Test Pressure     | 25 Bar            |
| Burst Pressure    | >69 Bar           |

---

## **10. STABILITY AND REACTIVITY**

---

#### **Stability**

Stable under normal conditions.

#### **Conditions to Avoid**

Heat – High temperature, exposure to direct sunlight

#### **Materials to Avoid**

Strong oxidizing agents, strong acids, sodium hypochlorite.

#### **Hazardous Polymerization**

Will not occur

#### **Hazardous Decomposition Products**

Thermal decomposition may yield oxides of carbon, ammonia, oxides of phosphorus, nitrogen oxides and smoke.

---

## **11. TOXICOLOGICAL INFORMATION**

---

#### **Extinguishing Media**

#### **Acute Toxicity**

Low order of acute toxicity.

**Chronic Toxicity/ Carcinogenicity**

This product is not expected to cause long term adverse health effects.

**Genotoxicity**

This product is not expected to cause any mutagenic effects.

**Reproductive/ Developmental Toxicity**

This product is not expected to cause adverse reproductive effects.

**Propellant**

Carcinogenic References:

NTP Carcinogen – Known: No, IARC Category – None

Aggravated by Exposure:

Exposure to Carbon Dioxide at 1 to 4% concentrations result in increased respiratory volume. Material acts as a simple Asphyxiate by Displacing Air Necessary for life.

---

**12. ECOLOGICAL INFORMATION**

---

**Extinguishing Agent:** BC Powder

**Mobility**

Soluble in water therefore it could increase the pH if washed into watercourses.

**Bioaccumulation**

Low potential for bioaccumulation.

**Degradability**

Not readily biodegradable.

**Acute fish toxicity**

Not toxic at limit of water solubility.

**Global Warming Potential (GWP)**

The extinguishing media is completely non volatile and therefore, its GWP is zero.

**Ozone-Depleting Substances (ODS)**

The extinguishing media contains no ozone-depleting substance.

**Propellant:** Carbon Dioxide

When discharged in large quantities may contribute to the greenhouse effect.

No relevant studies identified.

**Global Warming Potential (GWP)**

1

**Ozone-Depleting Substances (ODS)**

None

---

**13. DISPOSAL**

---

Dispose of container in accordance with all applicable local and national regulations. Do not cut, puncture or weld on or near to the container. No harm to the environment is expected from this preparation.

---

**14. TRANSPORT INFORMATION**

---

|                         |  |
|-------------------------|--|
| UN Proper Shipping Name | Fire extinguisher with compressed or liquified gas |
| UN Class                | 2.2  |
| UN Number               | 1044   |
| Flash Point             | +0.0/CEL   |



---

## 15. REGULATORY INFORMATION

---

Designation according to EC guidelines:

Observe the normal safety regulations when handling chemicals

The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

National regulations

Water hazard class: Water hazard class 1 (self-assessment): slightly hazardous for water.

---

## 16. OTHER INFORMATION

---

These products are designed, manufactured and tested in accordance with requirements of BS EN 3.

These products are also conforming to type as required by EC Pressure Equipment Directive PED 97/23/EC (CE Mark) and Kite Mark.

The information contained herein is based on data believed to be accurate. However, no representation, warranty, or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for its own particular use. Eversafe Extinguisher Sdn. Bhd. assumes no responsibility for personal injury or property damage resulting from use, handling or from contact with this product.

----End---