1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Eversafe Foam Cartridge Operated Type Mobile Fire Extinguisher MFG-45, MFG-135 & MFG-150 (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
Date of MSDS Issued: 03 January 2014
MSDS Number: QA-MSDS-30 (R3)

2. COMPOSITION / INFORMATION ON THE COMPONENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Material</th>
<th>Reference Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extinguisher Agent</td>
<td>AFFF Foam</td>
<td>MSDS - FF216 KERR</td>
</tr>
<tr>
<td>Propellant</td>
<td>Carbon Dioxide</td>
<td>MSDS - CO2 MOX</td>
</tr>
</tbody>
</table>

3. HAZARD IDENTIFICATION

Extinguisher Media
Not classified as hazardous under CHIP.

Propellant
Oxygen levels below 19.5% may cause asphyxia. Carbon dioxide exposure can cause nausea and respiratory problems. High concentrations may cause vasodilation leading to circulatory collapse. Contact with liquid product may cause frostbite or freeze burns in exposed tissues. Refer to MSDS-CO2 MOX for hazards identification in details.

4. FIRST AID MEASURES

Extinguisher Media
Inhalation – Move to fresh air
Skin contact – Wash off with plenty of water
Eye contact – Irrigate with fresh water for at least ten minutes holding eyelids apart.
Ingestion – Rinse mouth with water and give plenty of water to drink. Do not induce vomiting. If symptoms persist seek medical advice and treat symptomatically.

Propellant
Refer to MSDS-CO2 MOX for first aid measures for carbon dioxide.

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

Extinguisher Media
Washing of any spillages into drains should be avoided. Absorb spillage with absorbent granules and transfer to containers for safe disposal.
Propellant
Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in container or container valve, contact the appropriate emergency rescue.

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

Extinguisher Media
Use of gloves, goggles and protective clothing is recommended for personal protection.

Propellant
Respiratory Protection
Positive pressure air line with full-face mask and escape bottle or self-contained breathing apparatus should be available for emergency use.

Eye Protection
Safety goggles as appropriate for the job. A face shield is recommended for handling cryogenic liquids.

Skin Protection
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

<table>
<thead>
<tr>
<th>Properties</th>
<th>MFG-45</th>
<th>MFG-135</th>
<th>MFG-150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of Fire</td>
<td>A &amp; B</td>
<td>A &amp; B</td>
<td>A &amp; B</td>
</tr>
<tr>
<td>Fire Rating</td>
<td>IIB</td>
<td>IVB</td>
<td>IVB</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>+5°C to +60°C</td>
<td>+5°C to +60°C</td>
<td>+5°C to +60°C</td>
</tr>
<tr>
<td>Discharge Time</td>
<td>105 sec approx</td>
<td>160 sec approx</td>
<td>180 sec approx</td>
</tr>
<tr>
<td>Effective Range</td>
<td>10~12m approx</td>
<td>11~13m approx</td>
<td>11~13m approx</td>
</tr>
<tr>
<td>Working Pressure</td>
<td>12~15 Bar</td>
<td>12~15 Bar</td>
<td>12~15 Bar</td>
</tr>
<tr>
<td>Test Pressure</td>
<td>21.5 Bar</td>
<td>22.5 Bar</td>
<td>22.5 Bar</td>
</tr>
<tr>
<td>Burst Pressure</td>
<td>&gt;55 Bar</td>
<td>&gt;55 Bar</td>
<td>&gt;55 Bar</td>
</tr>
</tbody>
</table>

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
Refer to MSDS-FF216 KERR for toxicological information for foam.

Propellant
Refer to MSDS-CO2 MOX for toxicological information for carbon dioxide.

12. ECOLOGICAL INFORMATION

Mobility
No relevant studies identified.

Persistence/ Degradability
No relevant studies identified.

Bio-accumulation
No relevant studies identified.

Ecotoxicity
No relevant studies identified.

Global Warming Potential (GWP)
The extinguishing medium is completely non volatile and therefore, its GWP is zero.

Ozone-Depleting Substances (ODS)
The extinguishing media contains no ozone-depleting substance.

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 BS EN 1866. These products are also conforming to type as required by EC Pressure Equipment Directive PED 97/23/EC, CE Mark, EC Marine Equipment Directive MED 96/98/EC, Wheel 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.
MATERIAL SAFETY DATA SHEET

FILMFOAM 216

1/ Chemical product and company identification
Trade name: FILMFOAM 219
Product Application: Fire fighting foam base
Manufacturer
Supplier: Kerr Fire Fighting Chemicals Ashcroft Road Knowsley Ind. Park Kirkby Liverpool L33 7TS ENGLAND
Tel: (44) 151 548 6424 Fax: (44) 151 548 7263
Kidde Products Station Road High Bentham Nr Lancaster
Tel: (44) 01524 264000 Fax: (44) 01524 264180

2/ Composition and ingredient information
An aqueous concentrated solution of fluorocarbon-hydrocarbon surfactants, foam stabilisers and preservatives (glycols).
Component name          CAS no       %composition   Symbol   Phrase
Water                     7732-18-5   Balance       Xi        R36
Butyl Diglycol            112-34-5    1-7           Xi        R36/37/38
Fluoro-alkyl surfactants  1-5          Xi            R36/37/38
Hydrocarbon surfactants   j-7          Xi            R36/38
Magnesium sulphate        10034-99-8  <5

3/ Hazard identification
Not classified as hazardous under CHIP.

4/ First aid measures
Inhalation: Move to fresh air
Skin contact: Wash off with plenty of water
Eye contact: Irrigate with fresh water for at least ten minutes holding eyelids apart
Ingestion: Rinse mouth with water and give plenty of water to drink. Do not induce vomiting.
If symptoms persist seek medical advice and treat symptomatically.

5/ Fire fighting measures
No specific measures required as this product is a fire extinguishing medium. If product containers are involved in fire then suitable extinguishing media should be applied.

6/ Accidental release measures
Washing of any spillages into drains should be avoided. Absorb spillage with absorbent granules and transfer to containers for safe disposal.
FILMFOAM 216

7/ Handling and storage
Product should be diluted with water for use. (216 at 6%).
Handling: Avoid repeated inhalation or contact with eyes and skin of the foam concentrate.
Storage: Product should be stored in sealed original containers above the freezing point and below 40°C.

8/ Exposure controls and personal protection
Occupational exposure standards:
United Kingdom OES: None
Personal Protection: Use of gloves, goggles and protective clothing is recommended.

9/ Physical and chemical properties
Appearance: Clear colourless liquid
Odour: Organic
pH at 20°C: 7.5-8.5
Specific Gravity: 1.005
Solubility: Miscible with water in all proportions
Flammability: Non-flammable
Flash Point: >98°C
Boiling Point: 100°C at 760mmHg
Freeze Point: -2°C

10/ Stability and reactivity
If stored at ambient temperature away from direct sunlight, shelf life is normally over ten (10) years.

11/ Toxicological properties
Ingestion: May cause vomiting, nausea and diarrhoea
Skin contact: May irritate skin
Inhalation: Prolonged extensive or repeated inhalation may be harmful.
Eye contact: May irritate eyes.
12/  Ecological information
As product is intended as a fire fighting foam it will create copious quantities of foam if washed into watercourses, although it is biodegradable. In the event of large spillage, advise appropriate authorities. (In UK, Environment Agency or SEPA and local water company).

13/  Disposal considerations
Dispose of surplus product or contaminated packaging according to local and national legislation. Do not dispose with water reactive materials.

14/  Transport information
Not classified as hazardous for transport.

15/  Regulatory information
Not classified under Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 as hazardous. Refer to Health and Safety at Work Act and the Control of Substances Hazardous to Work Regulations. This material safety data sheet does not constitute the user's own assessment of workplace risk as required by the above regulations. The Manual Handling Operations Regulations may be applicable to certain pack sizes of this product.

16/  Other information
The information in this safety data sheet is based on the present state of knowledge and current national legislation. It provides guidance on safety health and environmental aspects of the product and should not be construed as any guarantee of performance. The product should not be used for purposes other than fire-fighting without first referring to the supplier. The user is responsible for ensuring that requirements of relevant legislation are complied with. Further information may be obtained from the following Health and Safety Executive publications: EH40 Occupational Exposure Limits (updated annually)
1. Chemical Product and Company Identification

MALAYSIAN OXYGEN BERHAD,
No 13, Jalan 222,
46100 Petaling Jaya,
Selangor"Danil Ehsan,
Malaysia.

TELEPHONE NUMBER: 03-7554233
24-HOUR EMERGENCY TELEPHONE NUMBER: 03-7554233

PRODUCT NAME: CARBON DIOXIDE, REFRIGERATED LIQUID
CHEMICAL NAME: Carbon Dioxide
COMMON NAMES/SYNONYMS: Carbonic Anydride, Refrigerated Liquid

PREPARED BY: CPL REGULATION WORKING COMMITTEE
PREPARATION DATE: 1-8-1998
REVIEW DATES: 1-8-1998
LATEST REVISION DATE: 1-8-1998
PREVIOUS REVISION DATE: None

2. Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>% VOLUME</th>
<th>PEL-OSHA</th>
<th>TLV-ACGIH</th>
<th>LD₅₀ or LC₅₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide</td>
<td>96.8 TO 98.599</td>
<td>5000 ppm TWA</td>
<td>5000 ppm TWA 30000 ppm STEL</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Formula: C₀₂
CAS: 124-38-9

As stated in the ACGIH 1994-95 Threshold Limit Values for Chemical Substances and Physical Agents

3. Hazards Identification

**EMERGENCY OVERVIEW**

Oxygen levels below 19.5% may cause asphyxiation. Carbon dioxide exposure can cause nausea and respiratory problems. High concentrations may cause irritation leading to respiratory collapse. Contact with liquid product may cause frostbite or freeze burns in exposed tissues.

MSDS: LC02
Revised: 0
Page 1
ROUTE OF ENTRY:

<table>
<thead>
<tr>
<th>Skin Contact</th>
<th>Skin Absorption</th>
<th>Eye Contact</th>
<th>Inhalation</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

HEALTH EFFECTS:

<table>
<thead>
<tr>
<th>Exposure Limits</th>
<th>Irritant</th>
<th>Sensitization</th>
<th>Teratogen</th>
<th>Reproductive Hazard</th>
<th>Mutagen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Synergistic Effects
None reported

EYE EFFECTS:
Contact with evaporating liquid may cause frostbite or cryogenic "burns.

SKIN EFFECTS:
Contact with liquefied product may cause frostbite or cryogenic "burns" upon evaporation. Frostbite effects are a change in color of the skin to gray or white, possibly followed by blistering. Skin may become inflamed and painful.

INGESTION EFFECTS:
Ingestion is unlikely. Contact with liquid may cause frostbite or cryogenic "burns".

INHALATION EFFECTS:
Carbon dioxide is the most powerful cerebral vasodilator known. Inhaling large concentrations causes rapid circulatory insufficiency leading to coma and death. Asphyxiation is likely to occur before the effects of carbon dioxide overexposure. Chronic, harmful effects are not known from repeated inhalation of low concentrations. Low concentrations of carbon dioxide cause increased respiration and headache. Effects of oxygen deficiency may include: rapid breathing, diminished mental alertness, impaired muscular coordination, faulty judgement, depression of all sensations, emotional instability, and fatigue. As asphyxiation progresses, nausea, vomiting, prostration, and loss of consciousness may result, eventually leading to convulsions, coma, and death.

Oxygen deficiency during pregnancy has produced developmental abnormalities in humans and experimental animals.

MSDS: LC02
Revised: 0
4. First Aid Measures

EYES:
Never introduce oil or ointment into the eyes without medical advice! In case of freezing or cryogenic "burns" by rapidly evaporating liquid. WASH THE EYES WITH RUNNING WATER! Remove victim from the source of contamination. If pain is present refer the victim to an ophthalmologist for further treatment and follow up.

SKIN:
Remove contaminated clothing and flush affected area with water and soap. A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the skin or deep tissue freezing or if frostbite has occurred. Treat the "burn" in a similar manner as a thermal burn.

INGESTION:
Not likely.

INHALATION:
PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO CARBON DIOXIDE. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area, given mouth-to-mouth resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

5. Fire Fighting Measures

<table>
<thead>
<tr>
<th>Conditions of Flammability: Nonflammable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point: None</td>
</tr>
<tr>
<td>MeU10d: Not Applicable</td>
</tr>
<tr>
<td>Autoignition: None</td>
</tr>
<tr>
<td>Temperature: None</td>
</tr>
<tr>
<td>LEU%1: None</td>
</tr>
<tr>
<td>UEL(%): None</td>
</tr>
<tr>
<td>Hazardous combustion products: None</td>
</tr>
<tr>
<td>Sensitivity to mechanical shock: None</td>
</tr>
<tr>
<td>Sensitivity to static discharge: None</td>
</tr>
</tbody>
</table>

FIRE AND EXPLOSION HAZARDS:
None. Nonflammable.

6. Accidental Release Measures

Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in container or container valve, contact the appropriate emergency telephone number listed in Section 1 or call your closest MOX location.
7. Handling and Storage

Electrical Classification:
Non-Hazardous.

Dry carbon dioxide can be handled in most common structural materials. Moist carbon dioxide is generally corrosive by its formation of carbonic acid.

Use only in well-ventilated areas. Carbon dioxide vapor is heavier than air and will accumulate in low areas. Do not drag, slide or roll containers. Use a suitable hand truck for container movement. Do not heat containers by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the system. Provide proper pressure relief valve.

Protect containers from physical damage. Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where containers are stored to exceed 125°F (52 C). Containers should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent ill-dl containers being stored for excessive periods of time.

Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in asphyxiation.

8. Exposure Controls, Personal Protection

**EXPOSURE LIMITS:**

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>% VOLUME</th>
<th>PEL-OSHA</th>
<th>TLV-ACGIH</th>
<th>LD₅₀ or LC₅₀</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide</td>
<td>59.8 TO 95.599</td>
<td>5000 ppm TWA</td>
<td>5000 ppm TWA</td>
<td>Not Available</td>
</tr>
<tr>
<td>CAS: 124-38-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IDLH (Carbon Dioxide): 50,000 ppm

ENGINEERING CONTROLS:
Use local exhaust to prevent accumulation of high concentrations so as to reduce the O₂ tension level in the air to less than 19.5% and the carbon dioxide concentration below the exposure limit.
EYE/FACE PROTECTION:
Safety goggles or glasses as appropriate for the job. A faceshield is recommended for handling cryogenic liquid.

SKIN PROTECTION:
Protective gloves of any material appropriate for the job. Insulated gloves are recommended for cryogenic liquids.

RESPIRATORY PROTECTION:
Positive pressure air line with full-face mask and escape bottle or self contained breathing apparatus should be available for emergency use.

OTHER/GENERAL PROTECTION:
Safety shoes

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>VALUE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state (gas, liquid, solid)</td>
<td>Cryogenic liquid</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure at 70°F</td>
<td>856</td>
<td>psia</td>
</tr>
<tr>
<td>Vapor density at 70°F, 1 atm (Aic=I)</td>
<td>1.53</td>
<td></td>
</tr>
<tr>
<td>Evaporation point</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Boiling point (C/O2 Sublimes)</td>
<td>-109.3</td>
<td>°F</td>
</tr>
<tr>
<td></td>
<td>-78.5</td>
<td>°C</td>
</tr>
<tr>
<td></td>
<td>-69.8</td>
<td>°F</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-56.6</td>
<td>°C</td>
</tr>
<tr>
<td>pH</td>
<td>Not Available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
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<td></td>
</tr>
<tr>
<td>6H/water partition coefficient</td>
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<td></td>
</tr>
<tr>
<td>Solubility (H2O)</td>
<td>Very soluble</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Odor and appearance</td>
<td>A colorless, clear liquid which evaporates to a colorless, odorless gas.</td>
<td></td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

STABILITY:
Stable

INCOMPATIBLE MATERIALS:
Certain reactive metals, hydrides, moist cesium monoxide, or lithium acetylene carbide diammino may ignite. Passing carbon dioxide over a mixture of sodium peroxide and aluminum or magnesium may explode.

HAZARDOUS DECOMPOSITION PRODUCTS:
Carbon Monoxide and Oxygen when heated above 3092°F (1700 °C). Carbonic acid is formed in the presence of moisture.

HAZARDOUS POLYMERIZATION:
Will not occur.
11. Toxicological Information

REPRODUCTIVE:
Oxygen deficiency during pregnancy has produced developmental abnormalities in humans and experimental animals.

Exposure of female rats to 60,000 ppm carbon dioxide for 24 hours has produced toxic effects to the embryo and fetus in pregnant rats. Toxic effects to the reproductive system have been observed in other mammalian species at similar concentrations.

OTHER:
Carbon Dioxide is the most powerful cerebral vasodilator known. Inhaling large concentrations causes rapid circulatory insufficiency leading to coma and death. Chronic, harmful effects are not known from repeated inhalation of low (3 to 5 molar%) concentrations.

12. Ecological Information

None.

13. Disposal Considerations

Do not attempt to dispose of residual or unused quantities. Return in the shipping container PROPERLY LABELED to the nearest MOX location for proper disposal.

14. Transport Information

<table>
<thead>
<tr>
<th>m% tr</th>
<th>US DOT</th>
<th>CTDG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Carbon Dioxide, refrigerated liquid</td>
<td>Carbon Dioxide, refrigerated liquid</td>
</tr>
<tr>
<td>HAZARD CLASS:</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>IDENTIFICATION NUMBER:</td>
<td>UN2187</td>
<td>UN2187</td>
</tr>
<tr>
<td>SHIPPING LABEL:</td>
<td>NONFLAMMABLE GAS</td>
<td>NONFLAMMABLE GAS</td>
</tr>
</tbody>
</table>

15. Regulatory Information

None.

16. Other Information

The information furnish here is gathered with the greatest care and the knowledge available on the date of issue. It does not include any warranties or responsibility regarding the suitability of the information for the users intended purposes or for the consequences of its use. Each individual should make a