SAFETY DATA SHEET

SEALEY Safety PRODUCTS

SCDE02 2kg CO_2 FIRE EXTINGUISHER

1. SUPPLIER

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2. APPLICATION

CARBON DIOXIDE FIRE EXTINGUISHER. UN No.1044 CAS 00124-38-9 EEC2046969

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description: Pressurised CO_2 gas cylinder

Hazardous ingredients: Liquified CO_2 UN No.1044 CAS 00124-38-9

4. HAZARD IDENTIFICATION

Pressurised gas cylinder. Liquified Gas. In high concentrations may cause asphyxiation.
Contact with product may cause burns or frostbite.
Large volume increase on phase change

5. FIRST AID MEASURES

General remarks: All information regarding First Aid refers to an accident, during which large amounts of carbon dioxide escape from the pressurised gas cylinders.

In case of inhalation: Remove the person in question from the danger zone and take him to an area with fresh air. Ensure use of protection measures for rescue personnel. Carbon dioxide has a suffocating effect. Resuscitate persons with respiratory arrest. Call emergency doctor immediately.

In case of skin contact: Skin contact with carbon dioxide snow can cause serious frostbite. Thaw affected spot with cold water and apply a sterile bandage to it. Go to see a doctor immediately.

In case of eye contact: Immediately flush with cold water. Go to see a doctor immediately.

In case of ingestion: Not probable.

Remarks for the Doctor: Possibly artificial respiration, at the most intubation and observation of blood gases or acid/base equilibrium required, possibly THAM. Continuously symptomatic. Follow up observation. In case of local effects of carbon dioxide snow, dry treatment as in the case of frostbite.

6. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Product is non-flammable.

Extinguishing media that must not be used: All can be used.

Special exposure hazards: Stored under pressure. When overheated, safety devices on CO_2 extinguishers can release all of the CO_2.

Special protective equipment for fire fighters: Use self-contained breathing apparatus.

7. ACCIDENTAL RELEASE MEASURES

Precautions against personal injuries As the extinguisher empties quickly, it can cool down to very low temperatures. Wait several minutes before touching the cylinder and other frozen items because of the danger of frostbite. Use a breathing mask with filter type B. In case of low oxygen concentration wear breathing aids that are independent of the surrounding air.

Measures for environmental protection: This product does not pose an environmental threat.

Means for cleaning/wiping: Provide good ventilation

Additional remarks: In case of gas leakage provide good ventilation. (Danger of suffocation in closed spaces). Carbon dioxide is heavier than air and collects on the floor (especially dangerous for small children and pets).

8. STORAGE AND HANDLING

Safety factors: Gas cylinder is under pressure. Keep away from heat sources and handle carefully. Do not puncture the cylinder or tamper with the valve!

Handling: Take care with moving and stacking so there is no danger of a stack collapsing. The product is heavy. Do not tamper with, or damage the extinguisher valve.

Storage: Store in a dry and cool, well ventilated location.
Do not overheat. Protect from direct sunlight and other heat sources. Safety device will release all of the cylinder contents when pressure is generated due to overheating.

9. EXPOSURE CONTROLS/ PERSONAL PROTECTION

In case of mass CO2 spillage:
Exposure limits: Long term exposure limit (8 hour TWA): 5,000ppm (0.5% by volume)
Short term exposure limit (10 minutes): 15,000 ppm (1.5% by volume)

Personal protective equipment: Ensure adequate ventilation

Respiratory protection: Facemask with filter type B or breathing aids that are independent of the surrounding air.

Hand protection: Gloves to protect from cold

Eye protection: Goggles or face mask

Skin protection: Overalls

Additional remarks: Carbon dioxide has a suffocating effect and is odourless.

10. PHYSICAL & CHEMICAL PROPERTIES

All data refers to carbon dioxide:
Appearance: Colourless gas, may appear as a white mist
Odour: Slightly pungent
pH: N/A
Boiling point/boiling range: -56.6°C ~ 31°C depending on pressure
Melting point: Dry ice to gas: sublimated at –78°C
Flash point: N/A
Flammability: Non-flammable
Explosive properties: None
Oxidising properties: None
Vapour pressure: N/A
Relative density: 1.53 (air = 1).
Solubility: Water solubility: 0.88 volumes at zero gauge pressure and 20°C
CO2 gas is heavier than air & may accumulate in confined spaces eg cellars, store rooms.

11. STABILITY & REACTIVITY

Conditions to be avoided: Heat, direct sunlight, blows, shock

Substances to be avoided: The product is inert.

Hazardous decomposition products: None

12. TOXICOLOGICAL INFORMATION

All data relates to carbon dioxide:

Carbon dioxide is normally present in the air at approximately 300ppm (0.03%).

Recommended exposure limit for 8 hour time weighted average is 5,000ppm (0.5%).
At 20,000ppm (2%) ~ laboured breathing, headaches, exhaustion.
At 50,000ppm (5%) ~ very laboured breathing (four times normal rate) signs of intoxication after 30 minutes.

Up to 100,000ppm (10%) ~ very laboured breathing, headaches, visual disturbance, impaired judgement, rapid loss of consciousness.

Above 10% ~ more rapid loss of consciousness, further prolonged exposure to high concentrations may eventually result in death from asphyxiation.

13. ECOLOGICAL INFORMATION

All data relates to carbon dioxide

Degradability: Is converted to oxygen by plant life photosynthesis.

Accumulation: Is readily dispersed by ventilation.

Ecotoxicity: Generally not hazardous to water quality.

Other adverse effects: Is a contributor to the greenhouse effect.

14. DISPOSAL CONSIDERATIONS

Extinguisher assemblies:
Return to manufacturer or distributor for disposal.
Vent gas to atmosphere in a well ventilated environment.

15. TRANSPORT INFORMATION

ADR/RID/GGVS/GGVE Class: 2.2 **Number/Letter:** 6A **Labelling:** Sample 2.2

Proper shipping name: Fire Extinguishers

Description for transport documents: UN 1044 Fire Extinguishers, 2.2, 3(E), IMDG2141, Non-flammable, No flash point, Packing group 2.

The transport category tunnel restriction code 3(E) is not needed if the route does not include any restricted tunnels.

16. REGULATORY INFORMATION

Design code BS 5045 Pt 8 for Aluminium Cylinders.
EN 3-7:2004 for fire extinguisher assemblies.
Approval #s COV0412447/01, COV0430123/05 & /06 for the Aluminium Cylinders.
Approval # KM96452 (BSI) and 713a/01 ~/08 (LPCB) & 713b/01 ~ /03 (LPCB).
CE Approval from Lloyds Register ~ CE0038 for extinguishers.

To use the fire extinguisher:

- Use the extinguisher upright, break the security seal and remove the safety pin.
- Direct the horn at the base of the fire.
- Squeeze the handle to activate the extinguisher, release the handle to stop.

The double skin horn is safe to hold during use.

The extinguisher is ideally suited to flammable liquid fires and fires in live electrical equipment.

The information contained in this data sheet is based on our present level of knowledge. It does not present any assurance of product features, and does not represent any legal relationship.

The user is recommended to check for other local or national laws or requirements that may be applicable.

17. OTHER INFORMATION

It is recommended that a potential user should have some training in the correct use of a fire extinguisher. This is best done by contacting one of the many professional fire extinguisher supply and service companies.

- **A fire extinguisher is designed to fight a small fire that has just started.**
- If you cannot get within 2 metres (6 feet) of the fire it is already too big and should be left to the fire brigade.
- Never put yourself or others at risk.
- Ensure you have a clear escape path from a fire in case it gets out of control.

A CO_2 fire extinguisher should be used on fires involving flammable liquids and on fires involving live electrical equipment. **NOTE !** These extinguishers should not be used for cooking oil / chip pan fires, where a fire blanket or damp cloth should be used to smother the flames and left to cool.

Key CO_2 data for this MSDS is extracted from a CO_2 suppliers safety data book.