

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

- 1.1 Product Identification                      CARBON DIOXIDE  
UN No 1013  
CAS 00124-38-9  
EEC 2046969
- 1.2 Use    Fire fighting:  
Contained in fire extinguishers or  
propellant cartridges or cylinders for fire extinguishers.
- 1.3 Supplier    Chubb Fire Limited  
Chubb House  
Sunbury on Thames  
Middlesex  
TW16 7AR  
United Kingdom  
Tel: +44 (0)1932 785588  
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### 2. COMPOSITION

Carbon Dioxide CAS No 00124-38-9

### 3. HAZARDS IDENTIFICATION

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

### 4. FIRST AID MEASURES

- Inhalation:                      wearing self-contained breathing apparatus, remove victim to uncontaminated area.  
Keep warm and rested. Call a doctor.
- Skin contact:                      immediately flush with water. In case of frostbite, spray with water for at least 15 minutes  
and apply a sterile dressing.
- Eye contact:                      immediately flush eyes with water for 15 minutes.
- Ingestion:                      not considered a potential route of exposure.

**5. 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. Exposure to fire may cause containers to vent pressure.

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

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions: evacuate area. Ensure adequate air ventilation. Use self-contained breathing apparatus when entering area. Use protective clothing.

Environmental precautions: try to stop release. Prevent from entering sewers, basements and workpits.

Methods for cleaning up: ventilate area.

**7. HANDLING AND STORAGE**

Precautions for safe handling: use only properly specified containers. Do not allow suck back of water into containers.

Conditions for safe storage: keep container below 50°C in a well ventilated place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Respiratory protection:	ensure adequate ventilation
Hand protection:	gloves to protect from cold
Eye protection:	goggles or face mask
Skin protection:	overalls
Exposure limits:	
long term exposure limit (8 hour TWA):	5,000ppm
short term exposure limit (10 minutes):	15,000 ppm

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	liquid. May appear as white mist
Odour:	sharp odour
pH:	N/A
Boiling point/boiling range:	-56.6°C
Flash point:	N/A
Flammability (solid, gas):	non-flammable
Explosive properties:	none
Oxidising properties:	none
Vapour pressure:	N/A
Relative density:	1.52 (air = 1). 0.82 (water = 1)
Solubility: water solubility, fat solubility:	2000mg/L
Partition coefficient: n-octanol/water:	

Gas heavier than air, may accumulate in confined spaces.

10. STABILITY AND REACTIVITY

Stability of the substance: stable under normal conditions.  
Conditions to avoid: slightly corrosive in presence of moisture.  
Materials to avoid: none known  
Hazardous decompositions products: none

11. TOXICOLOGICAL INFORMATION

Prolonged exposure at 20,000ppm for several hours may cause headaches and exhaustion.  
High concentrations will cause asphyxiation and death.

12. ECOLOGICAL INFORMATION

Mobility: may be a contributor to the greenhouse effect.  
Degradability: conversion by photosynthesis to oxygen by plant life.  
Accumulation:  
Short and long term effects on ecotoxicity:  
Other adverse effects: when discharged in large quantities may contribute to the greenhouse effect.

13. DISPOSAL CONSIDERATIONS

Do not discharge into any place where its accumulation could be dangerous.  
Vent to atmosphere in a well ventilated atmosphere.  
Discharges to atmosphere in large quantities should be avoided.

14. TRANSPORT INFORMATION

UN No: 1013  
Class/div: 2.2  
ADR/RID item no: 2.5a  
ADR/RID hazard no: 20  
Hazchem code: 2RE  
Groupcard no: 20g 16  
Labelling ADR: Label 2: non-flammable, non-toxic gas.

15. REGULATORY INFORMATION

EC classification: not classified as a dangerous substance.  
Ras Asphyxiant in high concentration.  
RFS May cause frostbite.

The information contained within this manufacturers safety data sheet does not constitute the users own assessment of workplace risk as required by other Health and Safety legislation.

16. OTHER INFORMATION

Training advice: Chubb Fire offer a range of training courses to assist users.  
Recommended uses and restrictions: follow suppliers instructions.  
Further information:  
Sources of key data used to compile data sheet: suppliers MSDS.