

Safety Data Sheet – Carbon Dioxide (Solid)

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name Carbon Dioxide (Solid)

Chemical formula CO₂

Company identification See footer

Emergency phone nos 08433 192919/0845 130 3280

2 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation Components/Impurities Substance contains no other components or impurities which will influence the classification of the product

CAS Nr 124-38-9

EEC Nr 2046969

(from EINECS)

3 HAZARDS IDENTIFICATION

Hazards identification Refrigerated solidified gas. Contact with product may cause cold burns or frostbite. In high concentrations sublimed vapour may cause asphyxiation.

4 FIRST AID MEASURES

Inhalation of sublimed vapour In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Low concentrations of CO₂ cause increased respiration and headache. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

Skin/eye contact with Carbon Dioxide (Solid) Immediately flush eyes thoroughly with water for at least 15 minutes. In case of frostbite spray with tepid water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.

Ingestion Ingestion is not considered a potential route of exposure.

5 FIRE FIGHTING MEASURES

Specific hazards None

Hazardous combustion products None

Suitable extinguishing media All known extinguishers can be used.

Specific methods Water on Solid Carbon Dioxide increases sublimation. Higher risk of asphyxiation.

Special protective equipment for fire fighters In confined space use self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate area. Use protective clothing. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.

Environmental precautions Try to stop release. Prevent from entering sewers, basements and workpits, or any place where it's accumulation can be dangerous

Clean up methods Ventilate area.

7 HANDLING AND STORAGE

Handling and storage Use only properly specified equipment which is suitable for this product. Contact your supplier if in doubt. Refer to supplier's container handling instructions. Keep container in a well ventilated place.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit UK: STEL; 15000ppm; LTEL: 5000ppm

Personal protection Ensure adequate ventilation. Protect eyes, face and skin from contact with product.

9 PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight 44

Melting point -56.6°C

Boiling point -78.5°C (sublimes)

Critical temperature 30°C

Relative density, gas 1.52 (air=1)

Relative density, liquid 1.03 (water=1)

Relative density, solid 1.87 (water=1)

Vapour pressure 20°C 57.3 bar

Solubility mg/l water 2000 mg/l

Appearance/Colour Translucent white solid

Odour No odour warning properties

Other data Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10 STABILITY AND REACTIVITY

Stability and reactivity Stable at atmospheric pressure and -78°C. At normal temperatures product sublimes into Carbon Dioxide gas. Contact with solid can cause embrittlement of structural materials.

11 TOXICOLOGICAL INFORMATION

General High concentrations of sublimed vapour cause rapid circulatory insufficiency. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness.