



# COSHH Risk Assessment

MD101

## SUBSTANCE INFORMATION

Substance/material: **Gas**

Trade name: **Carbon Dioxide**

What is the substance used for? **Fire Extinguishing Agent**

(E.g. cleaning floors, protective coating, etc.)

What are the hazardous ingredients/chemicals in the substance? (List below)

**Carbon Dioxide CAS Number 00124-38-9**

Do any of the chemicals have a:

Workplace Exposure Limit? (State opposite)

**8 Hr TWA 5000 ppm 8 Hr TWA 9150 mg/m<sup>3</sup>**

Is the substance: (Check for an orange 'CHIP' square on the product data sheet or packaging.)

- Extremely flammable?     Oxidising?     Very toxic?     Sensitising?
- Highly flammable?     Harmful?     Corrosive?     Other? (Specify below.)
- Flammable?     Toxic?     Irritant?

Is the substance hazardous to health when:

- In contact with skin?     Breathed in?     Other (Specify below)
- In contact with eyes?     Swallowed?    **Inhalation: Asphyxiant at high concentration.**

## USE OF SUBSTANCE

How should the substance be used? **Gas deployed on to fire from Fire Extinguisher nozzle**

(E.g. diluted in water, applied with a brush, sprayed, etc.)

How much is used every week? (State quantity in litres or kilos as appropriate.) **Cylinder to cylinder transfer of gas at vehicle.**

Who is exposed to the substance?

(E.g. those using it, pupils, service users, etc.) **Engineers.**

Does the substance present additional risks to certain groups or individuals?

(E.g. young people, expectant mothers.) **No**

## CONTROL MEASURES

Can a less hazardous substance be used to do the same job?    Yes     No






(If you don't know, please contact your supplier for further information.)

What controls are required for this substance, other than Personal Protective Equipment (PPE)?

(E.g. well ventilated areas, not in spray/mist form, mechanical ventilation, authorised persons only.)

**Where possible, containers should be used out of doors or in a well-ventilated place.**

Is any Personal Protective Equipment (PPE) required when using the substance?

-   Eye protection? (State type required)      Gloves? (State type required)
-   Overalls/clothing? (State type required)      Mask/respirator? (State type required)
-   Other? (State type required)

**How should the substance be stored?** (E.g. locked cupboard, away from other substances, etc.)

Only trained personnel should handle or use containers. Do not subject containers to excessive heat or mechanical shock. Where possible, containers should be out of doors or in a well-ventilated place. Obey all inhouse and statutory regulations. If more than one gas or mixture is kept, ensure that they can be readily identified and separated if necessary. Use only equipment suitable for the gas(es), temperature and pressure involved and inspect regularly. Do not remove labels from containers. Do not handle containers by the valves. Do not use oil or grease on valves, fittings, or any other equipment. Always close valves using moderate force only, even when the container is empty. Containers should be kept upright even when empty.

**Please turn over**

**Have persons using this substance been provided with information or training on its use?** Yes   
(As a minimum ensure a copy of this assessment is in a known and readily accessible location.) No

**OTHER PRECAUTIONS AND EMERGENCY PROCEDURES**

**Personal Precautions:** Evacuate area. Wear suitable protective clothing. Wear self-contained breathing apparatus if it is necessary to enter the area. **Environmental Protection:** Close the valve, and/or remove container to the open air if safe to do so. Prevent from entering basements, workpits, sewers and other low lying areas where accumulation could be dangerous.

**First aid:** What actions should be taken if the substance is:

a) Swallowed? Not applicable.	b) In contact with eyes Immediately flush eyes thoroughly with water for at least 15 minutes. Obtain medical assistance.
c) In contact with skin? Immediately flush the affected area with water for at least 15 minutes. Obtain medical assistance.	d) Inhaled? Symptoms may include loss of mobility/consciousness. Using breathing apparatus, remove casualty from exposure. Call a doctor. Keep casualty warm and rested. If breathing stopped, apply artificial respiration.

e) Other? (Please specify.)

**Fire precautions:** What actions should be taken in the event of fires involving this substance?

All known extinguishers can be used. However, no fire risk will arise with carbon dioxide.

**Chemical reactions:** Is there any other substance that this substance must not come into contact with?

**Stability:** Stable in normal use. **Materials to Avoid:** May cause embrittlement or damage to materials not designed for use at very low temperatures or for the pressures generated by vaporisation. Avoid Rubber and PTFE materials.

**Disposal:** How should the substance be disposed of (or not disposed of)?

Do not discharge into areas where its accumulation may be dangerous. Discharging large quantities to the atmosphere should be avoided.

**Health surveillance:** Do staff using the substance require any health surveillance?

No

**ASSESSMENT OF RISK**

**Are all the controls detailed above currently in place?** Yes  No

**If these controls are not in place, or additional controls are required, state action to be taken.**

**Please note** - COSHH substances must **NOT** be used if adequate control measures are not in place.

Remedial actions required	Date for completion

**Are hazards to health adequately controlled with all control measures in place?** Yes  No

<b>Assessor(s) name:</b> Chris Ogden	<b>Assessor(s) signature:</b> Chris Ogden	<b>Date:</b> 01/01/17
The Line Manager should sign below to show that the assessment is a correct and reasonable reflection of the hazards and of the control measures and actions required.		
<b>Line Managers name:</b>	<b>Line Managers signature:</b>	<b>Date:</b>
<b>Remedial actions complete:</b> (Date)	<b>Line Managers signature:</b>	<b>Reviewed on:</b>

**A copy of the product safety data sheet must be attached to this assessment.**