

# SUREMIX 30, 50, 60

Product: Nitrogen + Carbon Dioxide MSDS Nr. 300-15-0008



## Gas safety data sheet

### 1. Identification of the substance/preparation and of the company

<b>Product name</b>	Asphyxiant (+CO <sub>2</sub> )
<b>Company identification</b>	BOC, Priestley Road, Worsley, Manchester M28 2UT
<b>Emergency phone number</b>	08457 302 302

### 2. Composition/information on ingredients

<b>Substance/preparation</b>	Preparation
<b>Components/impurities</b>	Contains the following components: Nitrogen and Carbon Dioxide. Refer to table overleaf.

### 3. Hazards identification

<b>Hazards identification</b>	Compressed gas. In high concentrations may cause asphyxiation.
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### 4. First aid measures

<b>Inhalation</b>	Low concentrations of CO <sub>2</sub> cause increased respiration and headache. Exposure to high volumes of nitrogen and carbon dioxide mixtures may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stops.
<b>Ingestion</b>	Ingestion is not considered to be a potential route of exposure.

### 5. Fire fighting measures

<b>Specific hazards</b>	Exposure to fire may cause cylinders to rupture/explode. Non-flammable.
<b>Hazardous combustion products</b>	None.
<b>Suitable extinguishing media</b>	All known extinguishants can be used.
<b>Specific methods</b>	If possible, stop flow of product. Move cylinder away or cool with water from a protected position.
<b>Special protective equipment for fire fighters</b>	In a confined space use self-contained breathing apparatus.

### 6. Accidental release measures

<b>Personal precautions</b>	Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe, i.e. oxygen concentration is 21% +/- 2% and CO <sub>2</sub> concentration is less than 1.5%. Ensure adequate air ventilation. For a leaking cylinder, try to stop release by closing the valve if safe to do so.
<b>Environmental precautions</b>	Try to stop release if safe to do so. Prevent from entering low lying areas where its accumulation can be dangerous, e.g. cellars.
<b>Clean up methods</b>	Ventilate area.

### 7. Handling and storage

<b>Handling and storage</b>	Cylinders should be secure when stored or in use. Only use cylinders when in an upright position. Suck back of water into the cylinder must be prevented. Do not allow feedback into the cylinder. When cylinder valves have been exposed to flooding in cellars, the cylinder must not be used and BOC notified for collection. Do not store cylinders adjacent to direct heat sources or within sealed rooms where ambient heat may build up. Keep cylinder below 50°C. Store in a well ventilated place, and if this is not possible conduct a confined space Risk Assessment. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Only open the cylinder valve when connected to equipment. Open and close valve slowly. Close cylinder valve when not in use.
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### 8. Exposure controls/personal protection

<b>Exposure limits</b> Great Britain	Carbon Dioxide Occupational Exposure Standard (OES) Short Term Exposure Limit (STEL) 15000ppm Long Term Exposure Limit (LTEL) 5000ppm (EH 40/2002)
<b>Personal protection</b>	Ensure adequate ventilation to keep below exposure limits.

### 9. Physical and chemical properties

<b>Relative density, gas</b>	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.
<b>Solubility mg/l water</b>	No reliable data available.
<b>Appearance/colour</b>	Colourless gas.
<b>Odour</b>	No odour warning properties.

## 10. Stability and reactivity

**Stability and reactivity** Stable under normal conditions.

## 11. Toxicological information

**General** Carbon Dioxide is mildly toxic with no cumulative effects. High concentrations cause rapid circulatory insufficiency. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness.

## 12. Ecological information

**General** When discharged in large quantities may contribute to the greenhouse effect.

## 13. Disposal considerations

**General** Discharge to atmosphere in a well ventilated place. Do not discharge into any place where the gas may accumulate. Discharge to atmosphere in large quantities should be avoided. Contact BOC Gases if guidance is required.

## 14. Transport information

**UN No** 1956  
**Class/Div** 2.2  
**ADR/RID**  
**Classification Code** IA  
**ADR/RID Hazard No** 20  
**Labelling ADR** Label 2.2: non-flammable, non-toxic gas.  
**Other transport information** Avoid transport on vehicles where the load space is not separated from the driver's compartment.  
 Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident (see 6. Accidental release measures).  
 Before transporting cylinders ensure that they are firmly secured and:

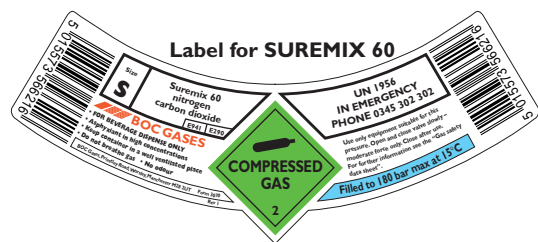
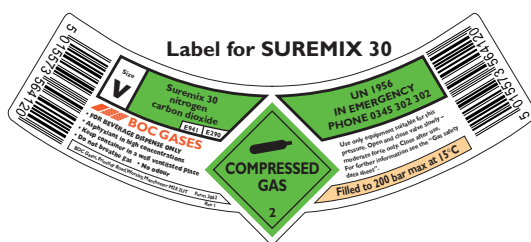
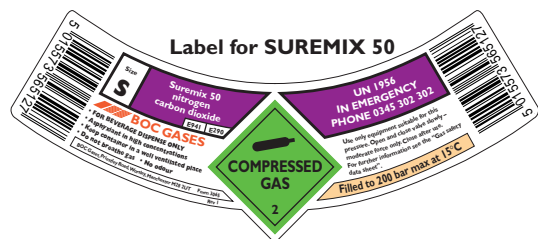
- cylinder valve is closed and not leaking
- valve guard is correctly fitted
- there is adequate ventilation
- compliance with applicable regulations.

## 15. Regulatory information

**Number in Annex I of Dir 67/548** Not applicable for preparations.  
**EC Classification** Not classified as a dangerous preparation.  
**Labelling of cylinders - Symbols** Label 2: non-flammable non-toxic gas.

## 16. Other information

Ensure all national/local regulations are observed.  
 Asphyxiant in high concentrations. Keep container in well ventilated place. Do not breath the gas.  
 The hazard of asphyxiation is often overlooked and must be stressed during operator training.  
 Users of breathing apparatus must be trained.  
 For beverage dispense only.  
 Before using this product in any new process or equipment, a thorough material compatibility and safety study should be carried out.  
 Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.



## Reference chart

Sureflow gas type	Gas cylinder	Maximum filled pressure (bar)	Cylinder size (cm)		Approx. cylinder weight (kg)	Nominal weight of gas (kg)	Gross weight cylinder + gas (kg)	Nominal gas volume (m <sup>3</sup> )
			Diameter	Height				
<b>SUREMIX 30</b> 30% CO <sub>2</sub> /70% N <sub>2</sub>	V	220	14.0	94.0	16	3.45	19.45	2.48
	S	220	20.3	87.0	30	6.27	36.27	4.51
	N	220	23.0	149.5	65	16.33	81.33	11.74
<b>SUREMIX 50</b> 50% CO <sub>2</sub> /50% N <sub>2</sub>	V	200	14.0	94.0	16	4.20	20.20	2.75
	S	200	20.3	87.0	30	7.73	37.33	5.06
	N	200	23.0	149.5	65	22.25	87.25	12.94
<b>SUREMIX 60</b> 60% CO <sub>2</sub> /40% N <sub>2</sub>	V	180	14.0	94.0	16	4.53	20.53	2.80
	S	180	20.3	87.0	30	8.32	38.32	5.12
	N	180	23.0	149.5	65	20.99	85.99	13.14

**Notes:** The nominal volume of gas is measured at 15°C and 1013mb pressure. Actual contents, volume and weight can vary around the nominal figures indicated. Cylinder height includes a 10cm allowance for the cylinder valve and guard.