

**MATERIAL SAFETY DATA SHEET (MSDS)
FOODFRESH 7****Please ensure that this MSDS is received by an appropriate person**DATE: Oct 17
Ref. No.: Foodfresh 7

Version1

1 PRODUCT AND COMPANY IDENTIFICATION**PRODUCT IDENTIFICATION**

Product Name Foodfresh 7
Chemical Formula CO₂
N₂
CO₂ plus N₂
Trade Names Foodfresh 7
Colour coding Foodfresh 7
Ivory body
Valves Brass ¾ inch BSP right hand female.
Company Identification Les Gaz Industriels Ltd
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EMERGENCY No (+230) 800 1133**2 COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Names Carbon dioxide
Nitrogen
Carbon Dioxide **Nitrogen**
Cas Nos. 124-38-9 7727-37-9
UN Nos. 1013 1066
Carbon Dioxide /Nitrogen Mixtures
UN Nos. 1956
ERG No 121
Hazchem Warning 2 C Non-flammable gas

3 HAZARDS IDENTIFICATION

Main Hazards All cylinders are portable gas containers and must be regarded as pressure vessels at all times. Foodfresh 7 do not support life. They can act as simple asphyxiants by diluting the concentration of oxygen in air below the levels necessary to support life. They are all heavier than air and will tend to concentrate at lower levels.

Adverse Health effects The carbon dioxide component contained in the relevant grades of foodfresh acts as a stimulant and a depressant on the central nervous system. Increases in heart rate and blood pressure have been noted at a concentration of 7.6 percent, and dyspnea (laboured breathing), headache, dizziness and sweating occur if exposure at that level is prolonged. The inhalation of nitrogen in excessive concentrations can result in dizziness, nausea, vomiting, loss of consciousness and death.

Chemical hazards Both the carbon dioxide and nitrogen components of the foodfresh 7 are non-toxic. They will not burn or support combustion.

Biological hazards The greatest physiological effect of carbon dioxide is to stimulate the respiratory centre, thereby controlling the volume and rate of respiration. It is able to cause dilation and constriction of blood vessels and is a vital constituent of the acid-base mechanism that controls the pH of the blood.

Vapour inhalation At concentrations of 10 percent of carbon dioxide and above, unconsciousness can result in one minute or less. Impairment in performance has been noted during prolonged exposure to concentrations of 3 percent carbon dioxide even when the oxygen concentration was 21 percent. Foodfresh 7 containing nitrogen acts as a simple asphyxiant and death may occur in seconds without warning.

Eye Contact No known effect
Skin Contact No known effect
Ingestion (See "Vapour Inhalation" above)

4 FIRST AID MEASURES

Prompt medical attention is mandatory in all cases of overexposure to Suremix. Rescue personnel should be equipped with self-contained breathing apparatus. Foodfresh 7 can produce unconsciousness or death. Lower concentrations may cause headache, sweating, rapid breathing, increased heartbeat, and shortness of breath, dizziness, mental depression, visual disturbances and shaking. Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be removed to an uncontaminated area and given mouth-to-mouth resuscitation and supplemental oxygen.

Eye contact No known effect
Skin contact No known effect
Ingestion (See section 3 above)

5 FIRE FIGHTING MEASURES

Extinguishing media Foodfresh 7 are non-flammable and do not support combustion, thus do not contribute to a fire, but could help with the extinguishing by reducing the oxygen content of the air by dilution to below the level to support combustion.

Specific hazards Foodfresh 7 does not support life. They can act as simple asphyxiants by diluting the concentration of oxygen in the air below the levels to support life.

Emergency actions If possible, shut off the source of excess Foodfresh 7
Evacuate area. All cylinders should be removed from the vicinity of the fire. Cylinders that cannot be removed should be cooled with water from a safe distance. Cylinders which have been exposed to excessive heat should be clearly identified and returned to the supplier. Contact Supplier.

Protective clothing Self-contained breathing apparatus. Safety goggles, gloves and shoes, or boots, should be worn when handling cylinders.

Environmental precautions Foodfresh7 is heavier than air and could accumulate in low-lying areas. Care should be taken when entering a potentially oxygen-deficient environment. If possible, ventilate the affected area. Care should be taken when entering a potentially oxygen-deficient environment. If possible, ventilate the affected area.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions Do not enter any area where Foodfresh7 has been spilled unless tests have shown that it is safe to do so.
Environmental precautions Foodfresh 7 does not pose a hazard to the environment.
Small spills Shut off the source of the escaping Suremix. Ventilate the area.
Large spills Evacuate the area. Shut off the source of the spill if this can be done without risk. Restrict access to the area until completion of the clean-up procedure. Ventilate the area using forced draught if necessary.

7 HANDLING AND STORAGE

Do not allow cylinders to slide or come into contact with sharp edges. Cylinder must be stored vertically and make sure that they are firmly secured Use a "first in - first out" inventory system to prevent full cylinders from being stored for excessive periods of time. Keep out of reach of children.

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|--------------------------------------|---|
| Occupational exposure hazards | As Foodfresh 7 is a simple asphyxiant, avoid any areas where spillage has taken place |
| Engineering control measures | Engineering control measures are preferred to reduce exposures to oxygen depleted atmospheres. General methods include forced-draught ventilation, separate from other exhaust ventilation systems. |
| Personal protection | Self-contained breathing apparatus should always be worn when entering area where oxygen depletion may have occurred. Safety goggles, gloves and shoes or boots should be worn when handling cylinders. |
| Skin | No known effect. |

9 PHYSICAL AND CHEMICAL PROPERTIES**PHYSICAL DATA****Carbon Dioxide**

| | |
|---|-----------------|
| Chemical Symbol | CO ₂ |
| Molecular Weight | 44,01 |
| Specific volume @ 20°C & 101,325 kPa | 547 ml/g |
| Relative density of gas @ 101,325 kPa (Air = 1) | 1,53 |
| Colour | None |
| Taste | Acidic |
| Odour | None |

Nitrogen

| | |
|---|----------------|
| Chemical Symbol | N ₂ |
| Molecular Weight | 28,013 |
| Specific volume @ 20°C & 101,325 kPa | 861,5 ml/g |
| Relative density of gas @ 101,325 kPa (Air = 1) | 0,967 |
| Colour | None |
| Taste | None |
| Odour | None |

10 STABILITY AND REACTIVITY

Conditions to avoid The dilution of oxygen in the atmosphere to levels which cannot support life. Never use cylinders as rollers or supports, or for any other purpose than the storing of Foodfresh7. Never expose cylinders to excessive heat, as this may cause sufficient build-up of pressure to rupture the cylinders.

Incompatible materials. As dry foodfresh are inert, they may be contained in systems constructed of any of the common metals which have been designed to safely withstand the pressures involved.

Hazardous Decomposition Products None

11 TOXICOLOGICAL INFORMATION

| | |
|----------------------|-------------------------------------|
| Acute Toxicity | TLV 5000 vpm (for CO ₂) |
| Skin & eye contact | No known effect |
| Chronic Toxicity | No known effect |
| Carcinogenicity | No known effect |
| Mutagenicity | No known effect |
| Reproductive Hazards | No known effect |

(For further information see Section 3. Adverse health effects)

12 ECOLOGICAL INFORMATION

Those Foodfresh containing carbon dioxide are heavier than air and can cause pockets of oxygen-depleted atmosphere in low-lying areas. They do not pose a hazard to the ecology.

13 DISPOSAL CONSIDERATIONS

Disposal Methods Small amounts may be blown to the atmosphere under controlled conditions. Large amounts should only be handled by the gas supplier.

Disposal of Packaging The disposal of containers must only be handled by the gas supplier.

14 TRANSPORT INFORMATION**ROAD TRANSPORTATION**

| | |
|-----------------|----------------------|
| UN No. | 1956 |
| ERG No | 121 |
| Hazchem warning | 2C Non-flammable gas |

SEA TRANSPORTATION

| | |
|-------|-------------------|
| IMDG | 1956 |
| Class | 2.2 |
| Label | Non-flammable gas |

AIR TRANSPORTATION

| | |
|--------------------------|--------|
| ICAO/IATA Code | 1956 |
| Class | 2.2 |
| Packaging instructions | |
| - Cargo | 200 |
| - Passenger | 200 |
| Maximum quantity allowed | |
| - Cargo | 150 kg |
| - Passenger | 75 kg |

15 REGULATORY INFORMATION

EEC Hazard class Non-flammable
National legislation OHSact and Regulations 85 of 1993
SABS 10234 and its supplement for explanation of the above.

16 OTHER INFORMATION

Bibliography
Compressed Gas Association, Arlington, Virginia
Handbook of Compressed Gases - 3rd Edition
Matheson. Matheson Gas Data Book - 6th Edition
SABS 0265 - Labelling of Dangerous Substances

17 EXCLUSION OF LIABILITY

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