

Safety Data Sheet

in accordance with EPA and WORKSAFE regulations

Print date: 13.06.2023

Revision date: 13.06.2023

1 Identification of the substance or mixture and of the supplier

Product Name: CARBON DIOXIDE

Other Means of Identification: Substance

Part Number: 216012

Recommended Use of the Chemical and Restriction on Use:

Food additive to charge/refrigerate drinks with gas; CO₂ enrichment in aquariums; technical gas for industrial use.

Details of Manufacturer or Importer:

Sutton Tools (NZ) Ltd
80A Hunua Rd, Papakura
Auckland, New Zealand, 2110

Phone Number: +64 9 295 0135

Emergency telephone number: +64 21 923 509

2 Hazards identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Health and Safety at Work (Hazardous Substances) Regulations 2017, New Zealand. Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2020 Transport of Dangerous Goods on Land.



Gas cylinder

Press. Gas C H280 Contains gas under pressure; may explode if heated.

Signal Word Warning

Hazard Statements

H280 Contains gas under pressure; may explode if heated.

Precautionary Statements

P410+P403 Protect from sunlight. Store in a well-ventilated place.

3 Composition/Information on ingredients

Chemical Characterization: Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:

CAS: 124-38-9	Carbon dioxide	 Press. Gas L, H280	≥99.99%
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4 First aid measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, wash affected areas with water and soap. If frostbite occurred, warm the skin with lukewarm water and gently wrap in a blanket. Do not attempt to remove clothing attached to frostbite area with. Seek medical attention if irritation develops.

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Eye Contact:

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: Ingestion is not considered a potential route of exposure.

Symptoms Caused by Exposure:

Inhalation: High concentrations may cause asphyxiation. Symptoms may include loss of consciousness. Victim may not be aware of asphyxiation.

Skin Contact: Stream of released gas may cause frostburn.

Eye Contact: May cause eye irritation.

Ingestion: Not considered possible route of exposure.

5 Fire fighting measures

Suitable Extinguishing Media: Use fire extinguishing methods suitable to surrounding conditions.

Specific Hazards Arising from the Chemical:

No hazardous decomposition products known.

Product is not flammable.

Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode. Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Minimise run-off from fire fighting entering drains or water courses.

HAZCHEM Code: 2T

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved self-contained breathing apparatus and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so. If not, bring the cylinder outdoors, in a ventilated area, and after that empty it in the atmosphere.

7 Handling and storage

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid inhalation of gases. Use only outdoors or in a well-ventilated area.

Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Only experienced and properly instructed persons should handle gases under pressure.

Open slowly the valve in order to avoid pressure shot. Do not allow backfeed into the container. Avoid the backfeed of water. Protect cylinders from physical damage; do not drag, roll, slide or drop. When moving cylinders, even for short distances, use a cart. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Close container valve after each use and when empty, even if still connected to equipment. Do not attempt to transfer gases from one cylinder/container to another. Do not use direct flame or electrical heating devices to raise the pressure of a container.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Do not smoke while handling product.

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Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Do not expose to the sun or temperatures exceeding 50 °C. Keep containers in upright position. Protect from heat, sparks, open flames and other sources of ignition. Keep away from ammonia and amines. Containers' valve guards or caps should be in place. Check periodically for damage or leaks. Do not allow backfeed into the cylinder. Do not allow suck back of water into the cylinder. Do not completely empty the cylinder.

8 Exposure controls/personal protection

Exposure Standards:

CAS: 124-38-9 Carbon dioxide

WES	STEL: 54000 mg/m ³ , 30000 ppm
	TWA: 9000 mg/m ³ , 5000 ppm

Engineering Controls:

Ensure adequate ventilation of the working area, keeping airborne concentrations below occupational exposure standards.

Respiratory Protection:

Wear approved self-contained breathing apparatus in case of insufficient ventilation or leaks. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Safety leather gloves, protective clothing and safety boots. See Australian Standards AS/NZS 2161, 2210.1 and 2210.2 for more information.

Eye and Face Protection:

Eye and face protectors for protection against gas. See Australian/New Zealand Standard AS/NZS 1337.

9 Physical and chemical properties

Appearance:

Form:	Compressed gas
Colour:	Colourless
Odour:	Odourless
Odour Threshold:	No information available
pH-Value:	3.7 (for carbonic acid)
Melting point/freezing point:	-78.5 °C (sublimation point)
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	Not applicable
Flammability (solid, gas):	Product is not flammable
Auto-ignition Temperature:	Not applicable
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure at 20 °C:	57,300 hPa
Relative Density:	1.03 (air = 1)
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water at 15 °C:	2,000 mg/L (at 1.013 bar)
Partition Coefficient (n-octanol/water):	No information available

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10 Stability and reactivity

Possibility of Hazardous Reactions: No dangerous reactions known under conditions of normal use.

Chemical Stability: Stable at ambient temperature and under normal conditions of storage and use.

Conditions to Avoid: Extreme temperatures.

Incompatible Materials: Ammonia, amines.

Hazardous Decomposition Products: No hazardous decomposition products known.

11 Toxicological information

Toxicity:

Acute Health Effects

Inhalation:

High concentrations may cause asphyxiation. Symptoms may include loss of consciousness. Victim may not be aware of asphyxiation.

Skin: Stream of released gas may cause frostburn.

Eye: May cause eye irritation.

Ingestion: Ingestion is not considered a potential route of exposure.

Skin Corrosion / Irritation: Based on classification principles, the classification criteria are not met.

Serious Eye Damage / Irritation: Based on classification principles, the classification criteria are not met.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: Based on classification principles, the classification criteria are not met.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects: No information available

Existing Conditions Aggravated by Exposure: No information available

Additional toxicological information:

Concentrations of 5,000 ppm in air can cause health problems after 8 hours of exposure. 15,000 ppm can cause problems in 10 minutes.

Concentrations greater than 20,000 ppm can cause headaches and loss of concentration. Concentrations greater than 10 % in air can cause asphyxiation and respiratory paralysis. Higher concentrations of carbon dioxide can cause immediate loss of consciousness and death.

12 Ecological information

Ecotoxicity:

Aquatic toxicity: No information available

Persistence and Degradability: No information available

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Bioaccumulative Potential: This product has a low bioaccumulative potential.**Mobility in Soil:** No information available**Other adverse effects:** Carbon dioxide is a major contributor to the greenhouse effect.

13 Disposal considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

14 Transport information

UN Number**NZS, IMDG, IATA** UN1013**Proper Shipping Name****NZS, IMDG, IATA** CARBON DIOXIDE**Dangerous Goods Class****NZS 5433:** 2.2**Packing Group:** None**EMS Number:** F-C,S-V**Hazchem Code:** 2T**Excepted quantities (EQ):** E1**Limited Quantities:** 500 ml

15 Regulatory information

HSNO Approval Code / Group Standard:

This product does not present hazards that would allow for correct Group Standard 2020 assignment.

New Zealand Inventory of Chemicals All ingredients are listed except:

16 Other information

Date of Preparation or Last Revision: 13.06.2023**Prepared by:** MSDS.COM.AU Pty Ltd

www.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

WES: Workplace Exposure Standard

Press. Gas C: Gases under pressure – Compressed gas

Press. Gas L: Gases under pressure – Liquefied gas

Disclaimer

This SDS is prepared in accord with the New Zealand Chemical Industry Council document 'Code of Practice (No. HSNO CoP 8-1 09-06)' and Hazardous Substances (Safety Data Sheets) Notice 2020.

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Sutton Tools (NZ) Ltd makes no representation of the accuracy or comprehensiveness of

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