

SodaStream Carbon Dioxide cylinder.

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier Product name Carbon dioxide, liquefied gas.

Trade name SodaStream gas cylinder

EC No (from EINECS): 204-696-9 CAS No: 124-38-9

Chemical formula CO₂

REACH Registration number:

Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.

Relevant identified uses of the substance and uses advised against

Relevant identified uses Carbonation of water in SodaStream machine.

Uses advised against Any other use.

Details of the supplier of the safety data sheet

Distribution in USA:
SodaStream USA, Inc.
200 East Park Drive
Suite 600
Mount Laurel, NJ 08054
USA
Tel. +1 856 755 3400
Fax. +1 856 667 7826

Distribution in Canada:
SodaStream Canada
Eco Stream
120-1821 Wellington Avenue
Winnipeg, MB
R3H 0G4
Canada
Tel. +1 204 415 0755
Fax. +1 204 772 2082

Emergency telephone number 800-763-2258

SECTION 2: Hazards identification

Classification of the substance

Classification Gases under pressure (Compressed gas) , asphyxiant.

Precautionary statement Liquefied gas. Contact with product may cause cold burns or frostbite.



Hazard Pictogram

- Signal word Warning

- Hazard Statements Contains gas under pressure; may explode when heated. The cylinder valve however contains a bursting disc designed to safely release the contents of the cylinder to atmosphere before the test pressure is reached, thus protecting the cylinder.

- Precautionary Statements

Precautionary Statement Storage

Protect from sunlight. Store in a well ventilated place.

Precautionary Statement Disposal

Return to supplier.

Other hazards

Asphyxiant in high concentrations.

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SECTION 3: Composition/information on ingredients.

Substance / Mixture: Substance.

SubstancesCarbon dioxide, CO₂, greater than 99.9% pure.

CAS No: 124-38-9

EC No (from EINECS): 204-696-9

REACH Registration number:

Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.

Mixtures

Contains no other components or impurities which will influence the classification of the product.

SECTION 4: First aid measures.**Description of first aid measures****First Aid Inhalation:** Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.**First Aid Skin / Eye:** In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance. Immediately flush eyes thoroughly with water for at least 15 minutes.**First Aid Ingestion:** Ingestion is not considered a potential route of exposure.**Most important symptoms and effects, both acute and delayed**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.**Indication of any immediate medical attention and special treatment needed**

Dizziness or drowsiness. Difficult or rapid breathing. Any signs of frostbite.

SECTION 5: Fire fighting measures.**Extinguishing media****Suitable extinguishing media**All known extinguishants can be used for the surrounding fire. Carbon dioxide is non-flammable but if heated the bursting discs may rupture to release all of the contained CO₂.**Special hazards arising from the substance**

Exposure to fire may cause containers to rupture/explode. Safety device releases all contents to atmosphere.

Hazardous combustion products

None.

Advice for fire-fighters

Move container away or cool with water from a protected position.

Special protective equipment for fire-fighters

In confined space use self-contained breathing apparatus.

SECTION 6: Accidental release measures**Personal precautions**

Evacuate area. 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 its accumulation can be dangerous.

Methods for containment and cleaning up

Ventilate area.

Reference to other sections

See also sections 8 and 13.

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SECTION 7: Handling and storage

Precautions for safe handling

Do not allow back feed of water into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not throw cylinders or allow them to drop onto hard surfaces.

Conditions for safe storage.

Boxed cylinders may be stood upright, loose cylinders should be laid horizontally and prevented from rolling. Cylinders should preferably be stored in open or ground level ventilated areas. If in a small closed room, the doors should be marked with "WARNING. NO VENTILATION. OPEN WITH CAUTION" in letters not less than 25mm high.

CO₂ is a heavy gas and any leakage will gather on the lowest level and slowly fill up a closed room. Store cylinders away from direct sunlight or other sources of heat. Store in an ambient temperature below 50°C

Specific end use(s)

Cylinders for use in SodaStream drinks making equipment. Should be used in accordance with the instructions for the drinkmaker.

Do not tamper with or remove the valve. Do not tamper with the cylinder.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure limit value

Exposure Limit						
Component	Result	ACGIH	Canada Ontario	Canada Quebec	NIOSH	OSHA
Carbon Dioxide	STEL	30000 ppm STEL	30000 ppm STEL	30000 ppm STEL 54000 mg/m ³ STEV	30000 ppm STEL 54000 mg/m ³ STEL	Not established
	TWA	5000 ppm TWA	5000 ppm TWA	5000 ppm TWA 9000 mg/m ³ TWAEV	5000 ppm TWA 9000 mg/m ³ TWA	5000 ppm TWA 9000 mg/m ³ TWA

Exposure controls

Appropriate engineering controls Ensure adequate natural or forced ventilation.

Personal Protective Equipment Use a NIOSH/MSHA or European standard EN 149 approved respirator if exposure limits are exceeded or inadequate ventilation is apparent. Wear eye and feet protection. Wear leather or insulated neoprene gloves when handling cylinders.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

General information

Physical state at 20°C: Liquefied gas in a cylinder, gas when not pressurised.
Appearance/Colour: Colourless liquid or gas.
Odour: No odour warning properties. Some may detect a pungent odour and biting taste.
Odour threshold: Not applicable
pH: 3.7 as carbonic acid
Melting point: -70°F (-56,6 °C)
Boiling point: -109,3°F (-78,5 °C)
Sublimation point: -109,3°F (-78,5 °C)
Critical temperature: 86°F (30°C)
Flash point: Not applicable.
Flammability: Non flammable.
Evaporation rate: High
Vapour Pressure 20°C: 57,3 bar
Relative density, gas: [air=1] 1,52
Relative density, liquid: [water=1] 0,82
Solubility in water: 2000 mg/l
Decomposition temperature: Not available
Autoignition temperature: Not applicable.
Explosive properties: Not explosive
Oxidising properties: Not applicable.
Viscosity: Not applicable

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

Hazardous decomposition products None

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SECTION 10: Stability and reactivity

Reactivity Unreactive under normal conditions.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions
None

Conditions to avoid None

Incompatible materials Dusts of various metals such as magnesium, zirconium, titanium, aluminium, chromium and manganese are ignitable and explosive when suspended in carbon dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

General Likely routes of exposure are inhalation and skin and eye contact. Ingestion is considered an unlikely route of exposure because under normal conditions carbon dioxide is encountered in gaseous form.

Inhalation. In high concentrations may cause rapid circulatory insufficiency. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness.

Carbon Dioxide Concentration Inhaled	EFFECTS
1%	Breathing rate increases slightly.
2%	Breathing rate increases to 50% above normal level. Prolonged exposure can cause headache, tiredness.
3%	Breathing increases to twice normal rate and becomes labored. Weak narcotic effect. Impaired hearing, headache, increased blood pressure and pulse rate.
4–5%	Breathing increases to approximately four times normal rate, symptoms of intoxication become evident, and slight choking may be felt.
5–10%	Characteristic sharp odor noticeable. Very labored breathing, visual impairment, headache, and ringing in the ears. Judgment may be impaired, followed within minutes by loss of consciousness.
10–100%	Unconsciousness occurs more rapidly above 10% level. Prolonged exposure to high concentrations may eventually result in death from asphyxiation.

Skin/eye contact. No harm expected from carbon dioxide gas. Cold gas from a discharging cylinder, liquid or solid carbon dioxide (dry ice) may cause severe frostbite.

Effects of repeated exposure. No harm expected from repeated exposure to gas.

Acute dose effects. LC_{Lo} = 90.000ppm, 5 minutes, human.

Carcinogenicity Carbon dioxide is not listed by NTP, OSHA or IARC.

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SECTION 12: Ecological information

Toxicity When discharged in large quantities, CO₂ may contribute to the greenhouse effect.
Carbon dioxide readily absorbs into water. Fish toxicity: 150000µg/L 48 days (mortality) Brown Trout.

Global Warming Potential GWP [CO₂ = 1] 1

Ozone-depletion Carbon dioxide is not an ozone-depleting chemical.

Persistence and degradability Not applicable

Mobility in soil Not applicable

Other adverse effects No adverse ecological effects are expected.

SECTION 13: Disposal considerations

Waste treatment methods

Do not discharge into any place where its accumulation could be dangerous. If necessary, vent to atmosphere in a well ventilated place. Discharge to atmosphere in large quantities should be avoided. Do not cut or incinerate cylinders.
Return cylinders to supplier.

SECTION 14: Transport information

Land transport

UN number UN 1013

Label code 49cfr172.101, , IMDG, IATA



UN proper shipping name Carbon dioxide

Transport hazard class(es) 2.2

Packing group not applicable

Environmental hazards None

Sea transport

IMO-IMDG

UN number UN 1013

UN proper shipping name Carbon dioxide

Transport hazard class(es) Class 2.2
Label: 2.2

Packing group (Packing Instruction) P200

Environmental hazards None.

Special precautions for user

Emergency schedules

Fire F-C

Spillage S-V

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Air transport

IATA

UN number

UN 1013

UN proper shipping name

Carbon dioxide.

Transport hazard class(es)Class: 2.2
Label: 2.2**Packing group (Packing Instruction)** 200 (Passenger and cargo aircraft)**Environmental hazards**

None

Special precautions for user

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 or an emergency.
Before transporting product containers ensure that they are firmly secured.
Ensure all cylinders are protected from sun/heat, are covered and secure.
Ensure adequate ventilation.
Ensure compliance with applicable regulations.

SECTION 15: Regulatory information

Cylinder design codes: 49cfr178.46 (DOT-3AL-1800 cylinder specification)
CAN/CSA-B339-02 (TC-3ALM-124 cylinder specification)

15.1 Identification:

Approval # CA1999060006 for DOT-3AL-1800 aluminium cylinders.
Approval # TC 217 for TC-3ALM-124 aluminium cylinders.
Registration # M-9903 marked on each cylinder

National Regulations:

SodaStream/Soda-Club carbon dioxide cylinders conform to Department of Transportation (DOT) and Canadian Transport of Dangerous Goods Regulations where marked on the cylinders.

Chemical safety assessment

A CSA does not need to be carried out for this product. Exposure data is included elsewhere in this SDS. Usage instructions are supplied with each product.

SECTION 16: Other information

This is issue 10 of the safety Data Sheet dated February 2015. It replaces the previous issue 9 dated 4th July 2013.

Ensure all national/local regulations are observed.

The hazard of asphyxiation is often overlooked and must be stressed during operator training. Ensure storage areas are ventilated. Contact with liquid CO₂ can cause cold burns/frostbite. Rapidly discharged cylinders can become very cold and protective gloves should be worn.

Do not breathe the gas.

High concentration levels of CO₂ discharged from single cylinders are unlikely to occur in other than extremely confined locations.

Store cylinders away from direct sunlight or other sources of heat. Store in an ambient temperature below 50°C.

Store the cylinders securely in boxes to prevent them rolling or falling on warehouse personnel.

Do not throw or impact the cylinders.

Ensure packaging is kept dry.

Cylinders are heavy; care should be taken to lift the boxes correctly to avoid back injuries.

Advice

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. Details given in this document are believed to be correct at the time of going to press.

Further information

Note: When using this document care should be taken, as the decimal sign and its position complies with rules for the structure and drafting of international standards, and is a comma on the line. As an example 2,000 is two (to three decimal places) and not two thousand, whilst 1.000 is one thousand and not one (to three decimal places).

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