

Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH) & EC 1272/2008 (CLP)

Creation data : 29.02.2012

Revision data : 17.11.2014

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1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier:

Product name: 16 g CO2 chargers

CAS No: 124-38-9

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

According to EC 1272/2008 (CLP) Gas under pressure -Compressed Gas- CLP Pressure Gas -H280.

Classification EC 67/548 or EC 1999/45: Not classified as dangerous substance/mixture; Not included in Annex IV; No EC labeling required.

Labeling regulation according to EC 1272/2008 (CLP):

REACH : listed in Annex IV / Vof EC 1907/2006 exempted from registration

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Relevant identified uses

Whipped Cream-Dressing / Mousses & Other Desserts / **Food-grade**

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Mosa Industrial Corp.

18, Kehu 3Rd. Huwei, Yunlin 63247, Taiwan

www.twmosa.com

Phone: +886 5 6361867

Fax : +886 5 6312770

1.4 Emergency telephone Number: +886 5 6361867

2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Hazard Class and Category Code Regulation EC 1272/2008 (CLP)

• Physical hazards : Gases under pressure - Compressed gas - Warning - (CLP : Press. Gas) - H280

Classification EC 67/548 or EC 1999/45 :

Not classified as dangerous substance/mixture.

Not included in Annex VI.

No EC labelling required.

2.2 Label elements

Labelling Regulation EC 1272/2008 (CLP)

• Hazard pictograms

• Hazard pictograms code : GHS04

• Signal word : Warning

• Hazard statements : H280 - Contains gas under pressure; may explode if heated.

• Precautionary statements

- Storage : P403 - Store in a well-ventilated place.

Labelling EC 67/548 or EC 1999/45 : No EC labelling required.



2.3. Other hazards

: Asphyxiant in high concentrations.

Contact with liquid may cause cold burns/frostbite.

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3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Preparation: Substance.

Components/Impurities

Carbon Dioxide.

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Einecs No : 204-696-9

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4: FIRST AID MEASURES

4.1 Description of first aid measures

4.1.1 Inhalation : 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 moved to an uncontaminated area, given assisted resuscitation and supplemental oxygen. Further treatment should be symptomatic and supportive.

4.1.2 Ingestion : None

4.1.3 Skin Contact : Flush affected areas with lukewarm water. DO NOT USE HOT WATER. A physician should see the patient promptly if the cryogenic "burn" has resulted in blistering of the dermal surface or deep tissue freezing.

4.1.4 Eye Contact : Persons with potential exposure to liquid nitrous oxide should not wear contact wear contact lenses.

5: FIRE-FIGHTING MEASURES

Flash Point (Method Used)	Flammable Limits	LEL : Not applicable	UEL: Not applicable
Non - flammable	Autoignition Temperature : Not determined	NFPA Class : None	

General Hazards :

Product is not flammable or combustible. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

Extinguishing Media

Carbon dioxide, water, water fog, dry chemical, chemical foam.

Fire Fighting Procedures

Self - contained respiratory equipment; cool containers to prevent pressure buildup and possible explosion when exposed to extreme heat.

Unusual Fire and Explosion Hazards

Closed containers can explode due to buildup of pressure when exposed to extreme heat. Contents under pressure. Do not use or store near heat sources.

Hazardous Combustion Products

Smoke, fumes or vapors, oxides of carbon.

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6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.

6.2 Environmental precautions:

Try to stop release. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.3 Clean up methods:

Ventilate area.

7: HANDLING AND STORAGE

Handling :	Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures, keep away from sources of heat. Do not puncture container. Do not attempt to refill container. Keep away from direct sunlight and heat. Never dispose of full chargers. Never force open. Keep out of reach of children and minors. If container is punctured, gas will escape and freeze container, use hand-protection and obviate direct contact with container to avoid cold-burns.
Storage :	Do not heat. Maximum environmental temperature in use not to exceed 50°C (122°F). Store in a cool and dry location.
Packaging materials	Recyclable steel
Recommended use :	Use original container.

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering controls :	The use of local exhaust ventilation is required to control emissions near the source. Provide mechanical ventilation of confined spaces.
Personal protection	
Respiratory system :	None required while threshold limits are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.
Protective gloves :	Utilize appropriate gloves for protection needed from cold, based on exposure.
Eye Protection :	Chemical safety goggles. Refer to 29 CFR 1910.133 or European Standard EN166.
Other protective clothing or equipment :	Safety eyewash station nearby.
Work/Hygienic practices :	Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

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9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties of CO₂ (E290--99% CO₂)

Vapor pressure at 20 °C (68 °F) :	58 kg/cm ²	
Vapor density at 20 °C (68 °F),1 atm (Air = 1)	1.52	
Evaporation point :	Not Available	
Melting point (CO ₂ Sublimes) :	- 56.6° C (- 69.9° F)	
Boiling point :	- 78.5° C (- 109.3° F)	
Specific gravity :	Not Available	
Solubility (H ₂ O) :	0.82 g/L at 15 °C, 100 kPa	
Odor and appearance :	A colorless, odorless gas.	
Pressure / Temperature Characteristics at filling density of 0.78 kg/liter :	57 bar at 20 °C	838 lbf/in ² at 68 °F
	185 bar at 50 °C	2680 lbf/in ² at 122 °F
	290 bar at 70 °C	4200 lbf/in ² at 158 °F
	425 bar at 100 °C	6160 lbf/in ² at 212 °F
	470 bar at 110 °C	6815 lbf/in ² at 230 °F

Parameter of 16g CO₂ charger

	<u>METRIC UNITS</u>	<u>US / IMPERIAL UNITS</u>
Overall Length (approx) :	88.4 mm	3.48 in
Body Diameter :	22 mm	0.866 in
Neck Diameter :	8.6 mm	0.339 in
Internal Volume (approx) :	20.4 ml	1.24 in ³
Net weight of N ₂ O (approx) :	16 g	0.56 oz
Tare wt. of charger (approx) :	42 g	1.48 oz
Gross wt. of charger (approx)	58 g	2.05 oz
Bursting pressure :	>500 bar	>7250 lbf/in ²

10: STABILITY AND RELIABILITY

Stability :	The product is stable.
Materials to avoid :	Strong oxidizers, strong acids.
Hazardous Decomposition Products :	Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced.

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11: TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS #	EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Carbon dioxide	124-38-9	204-696-9	Information not found	Inhalation-Rat 160 mg/m ³ /4 h

12: ECOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

13: DISPOSAL CONSIDERATIONS

Waste Disposal Method : Dispose of in accordance with Local, State, and Federal Regulations. This product may produce concentrated hazardous vapors in a disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway.

14: TRANSPORT INFORMATION

Non hazardous

UN No : UN 1013 CARBON DIOXIDE

Special Provision 584

Class: 2.2

Title : This gas is not subject to the requirements of ADR when:
A capsule contains not more than 25 g of this gas.

15: REGULATORY INFORMATION

EU Regulations Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

Hazard symbol(s) :



Classification : Harmful

Risk Phrases : R20- Harmful by inhalation.

Safety Phrases : S38 - In case of insufficient ventilation, wear suitable respiratory equipment.

Contains : CO₂

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16: OTHER INFORMATION

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on Information from similar products, the ingredients, technical literature, and/or professional experience.

HMIS Hazard Ratings	Health	* = Chronic Health	
	1	Hazard	
	Flammability	0 = Insignificant	2 = Moderate
	0	1 = Slight	3 = High
	Physical Hazard	Safety Glasses,	
	0	4 = Extreme	
	Personal Protective	Gloves	