

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Trade name	: Carbon Dioxide Gas Compressed Cartridge
Chemical name	: Carbon dioxide
CAS-No.	: 124-38-9
Product code	: 0207, 20208, 20216, 20240, 20277, 20279, 20287, 20382, G20309, G20310, G20311, G20312, G20313, G20314, G20315, G20316, G20317, G20327, G20328, G20331, G20440, G20441, G20446, G20447, G20461, G2131, G2132, G2133, G2134, G2149, G2150, G2153, G2156, G2158, G2159, G2166, G2170, G2173, G2176, G2178, G2179, G2373, G2429, G2507, G2508, G2537, G2541, G2543, G2581, G2582, G2618, G2620, G2628, G2631, G2642, G2644, G2673, G3160, G3516, G3517, G3518, G50094, G5040, G7500, G7510, G7520, G2062-FG, GMMQCC, GMMQCCAN, GMMQCCINT, GRM01280, GRM01284, GRM01350, GRM01370, 5008610, 10031208, 20495
Formula	: CO ₂
Other means of identification	: Carbon dioxide generated from propane, butane or a mixture of both by combustion

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Product Component
Recommended use	: Consumer uses: Private households (= general public = consumers), Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Restrictions on use	: No additional information available, Contact manufacturer

1.3. Supplier

Supplier

ITW Global Tire Repair Europe GmbH
Carl-Benz Str. 10, 88696 Owingen, Germany
Tel 0049 7551-9200-100
Email: Comments@itwgtr.com

1.4. Emergency telephone number

Emergency number	: 1-800-255-3924 ChemTel's local International number: +1-813-248-0585
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Gases under pressure Liquefied gas	H280	Contains gas under pressure; may explode if heated
Full text of H statements : see section 16		

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US)	: Warning
Hazard statements (GHS US)	: H280 - Contains gas under pressure; may explode if heated

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Precautionary statements (GHS US) : P410+P403 - Protect from sunlight. Store in a well-ventilated place.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%	GHS US classification
Carbon dioxide (Main constituent)	CAS-No.: 124-38-9	100	Press. Gas (Liq.), H280

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center/doctor/physician if you feel unwell. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: On frostbite: rinse with plenty of water, do NOT remove clothes. In case of contact with the skin : Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with the eyes : Call a physician immediately.
First-aid measures after ingestion	: Ingestion is not considered a potential route of exposure. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause shortness of breath, tightness of the chest, a sore throat and cough. Dizziness. Loss of consciousness. Cyanosis (blue coloured blood).
Symptoms/effects after skin contact	: Contact with the liquefied gas causes frostbite.
Symptoms/effects after eye contact	: Contact with the liquid may cause frostbite and serious damage to eyes.
Symptoms/effects after ingestion	: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Immediate medical attention and special treatment, if necessary

Artificial respiration and/or oxygen if necessary.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing agent suitable for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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5.2. Specific hazards arising from the chemical

- Fire hazard : Contains gas under pressure; may explode if heated. In case of fire and/or explosion do not breathe fumes.
- Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Move containers from fire area if it can be done without personal risk. Exercise caution when fighting any chemical fire. Fight fire with normal precautions from a reasonable distance. Use water spray or fog for cooling exposed containers. Evacuate the danger area.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid contact with skin and eyes.

6.1.1. For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Ventilate spillage area. Do not breathe gas. Avoid contact with skin and eyes. Evacuate unnecessary personnel. No action shall be taken without appropriate training or involving any personal risk. Keep away from heat.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Evacuate unnecessary personnel. Ventilate area. Do not breathe gas.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leak, if possible without risk.
- Methods for cleaning up : Leave the product to evaporate.
- Other information : Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Pressurized container: may burst if heated. Following use, do not pierce or burn the packaging, even if it is empty.
- Precautions for safe handling : Obtain special instructions before use. Handle carefully. Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing gas.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Always wash hands after handling the product.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool. Keep away from food, drink and animal feedingstuffs. Store in accordance with local, regional, national or international regulation.
Incompatible materials	: Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Heat sources. Open flame. Sources of ignition.
Storage area	: Store away from heat. Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbon Dioxide Gas Compressed Cartridge (124-38-9)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Carbon dioxide
ACGIH OEL TWA [ppm]	5000 ppm
ACGIH OEL STEL [ppm]	30000 ppm
Remark (ACGIH)	TLV® Basis: Asphyxia
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Carbon dioxide
OSHA PEL (TWA) [1]	9000 mg/m ³
OSHA PEL (TWA) [2]	5000 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Monitoring methods	
Monitoring methods	Refer to all applicable national, international and local regulations or provisions. Workplace atmospheres. Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy. Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

8.2. Appropriate engineering controls

Appropriate engineering controls	: Provide local exhaust or general room ventilation. Handle in accordance with good industrial hygiene and safety procedures. Avoid all unnecessary exposure.
Environmental exposure controls	: Avoid release to the environment. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment. Personal protective equipment should be chosen according to the NIOSH standards and in discussion with the supplier of the protective equipment.

Hand protection:

Chemical resistant gloves (according to NIOSH standard). Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

Eye protection:

Chemical goggles or safety glasses

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Skin and body protection:

No special requirements

Respiratory protection:

No respiratory protection needed under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment. All respirators must conform to specifications for efficiency and performance indicated by OSHA Standard 29 CFR 1910.134.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Liquefied compressed gas.
Color	: Colorless
Odor	: odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: 216.55 K
Freezing point	: Not applicable
Boiling point	: 195.15 K (101.3 kPa)
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable.
Vapor pressure	: 5730 kPa (293.15 K)
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.00197 g/cm ³ (101.3 kPa)
Solubility	: Soluble. Water: 2000 g/l
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Pressurized container: may burst if heated.

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10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Protect from sunlight. Overheating. High temperature. Heat.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: Not applicable
Symptoms/effects after inhalation	: May cause shortness of breath, tightness of the chest, a sore throat and cough. Dizziness. Loss of consciousness. Cyanosis (blue coloured blood).
Symptoms/effects after skin contact	: Contact with the liquefied gas causes frostbite.
Symptoms/effects after eye contact	: Contact with the liquid may cause frostbite and serious damage to eyes.
Symptoms/effects after ingestion	: Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Carbon Dioxide Gas Compressed Cartridge (124-38-9)

Persistence and degradability	Biodegradability in water: no data available.
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12.3. Bioaccumulative potential

Carbon Dioxide Gas Compressed Cartridge (124-38-9)

Bioaccumulative potential	No bioaccumulation potential.
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12.4. Mobility in soil

Carbon Dioxide Gas Compressed Cartridge (124-38-9)

Ecology - soil	No additional information available.
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12.5. Other adverse effects

Other adverse effects : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Do not pierce or burn, even after use.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with Department of Transport / Transportation of Dangerous Goods / IMDG / IATA

14.1. UN number

DOT NA No : UN1013
UN-No. (TDG) : Not applicable
UN-No. (IMDG) : 1013
UN-No. (IATA) : 1013

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Carbon dioxide
Proper Shipping Name (TDG) : Not applicable
Proper Shipping Name (IMDG) : CARBON DIOXIDE
Proper Shipping Name (IATA) : Carbon dioxide

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 2.2
Hazard labels (DOT) : 2.2



TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : 2.2
Hazard labels (IMDG) : 2.2



IATA

Transport hazard class(es) (IATA) : 2.2
Hazard labels (IATA) : 2.2

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14.4. Packing group

Packing group (DOT)	: Not applicable
Packing group (TDG)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable

14.5. Environmental hazards

Other information	: No supplementary information available.
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14.6. Special precautions for user

Special transport precautions	: Keep away from heat
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DOT

UN-No.(DOT)	: UN1013
DOT Packaging Exceptions (49 CFR 173.xxx)	: 306
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 302;304
DOT Packaging Bulk (49 CFR 173.xxx)	: 302, 314, 315
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 150 kg
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

TDG

Emergency Response Guide (ERG) Number	: 120
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IMDG

Special provision (IMDG)	: 378
Limited quantities (IMDG)	: 120 ml
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P200
EmS-No. (Fire)	: F-C - FIRE SCHEDULE Charlie - NON-FLAMMABLE GASES
EmS-No. (Spillage)	: S-V - SPILLAGE SCHEDULE Victor - GASES (NON-FLAMMABLE, NON-TOXIC)
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Liquefied, non-flammable gas.Heavier than air (1.5). Cannot remain in the liquid state above 31°C.

IATA

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 200
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 200
CAO max net quantity (IATA)	: 150kg
Special provision (IATA)	: A202
ERG code (IATA)	: 2L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

Carbon Dioxide Gas Compressed Cartridge (124-38-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

Carbon Dioxide Gas Compressed Cartridge (124-38-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 06/29/2021
Data sources : Supplier's safety documents.
Training advice : Training staff on good practice.

Full text of H-phrases

H280	Contains gas under pressure; may explode if heated
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Indication of changes:

14. Transportation information.

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.