

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS


Printing date: 15 August 2018

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

- **1.1 Product identifier**
 - **Trade name:** **Carbon Dioxide Gas Compressed Cartridge**
 - **Product code:** See section 16 for list of product codes.
 - **CAS number:**
124-38-9
 - **EC number:**
204-696-9
 - **Registration number:** 01-2119457610-43-XXXX
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
 - **Application of the substance / the mixture:** Product Component
 - **Uses advised against:** Contact manufacturer
- **1.3 Details of the supplier of the Safety Data Sheet**
 - **Manufacturer/Supplier:**
ITW Global Tire Repair, Europe GmbH
Carl-Benz-Str. 10
88696-Owingen
Germany
+49-7551-9200-0
Comments@itwgtr.com
- **1.4 Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008**
Press. Gas L H280 Contains gas under pressure; may explode if heated.
- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).
The substance is classified and labelled according to the CLP regulation.
 - **Hazard pictograms**

GHS04
 - **Signal word** Warning
 - **Hazard statements**
H280 Contains gas under pressure; may explode if heated.
 - **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.

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P102 Keep out of reach of children.
P410+P403 Protect from sunlight. Store in a well-ventilated place.

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- **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Substances**
- **CAS No. Description**
124-38-9 carbon dioxide
- **Identification number(s)**
- **EC number:** 204-696-9

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.
- **After skin contact:**
In cases of frostbite, rinse with plenty of water. Do not remove clothing.
Seek immediate medical advice.
- **After eye contact:**
Remove contact lenses if worn, if possible.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Unlikely route of exposure.
Seek immediate medical advice.
- **4.2 Most important symptoms and effects, both acute and delayed**
Breathing difficulty
Coughing, dizziness, if inhaled.
Cyanosis
Unconsciousness
- **4.3 Indication of any immediate medical attention and special treatment needed**
If necessary oxygen respiration treatment.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**
Danger of receptacles bursting because of high vapour pressure when heated.

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- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Protect from heat.
- **6.2 Environmental precautions** No special measures required.
- **6.3 Methods and material for containment and cleaning up** Allow to evaporate.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Handle with care.
Keep out of reach of children.
- **Information about fire - and explosion protection:**
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Store in a well-ventilated place. Keep cool.
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Avoid storage near extreme heat, ignition sources or open flame.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

124-38-9 Carbon dioxide

IOELV (EU)	Long-term value: 9000 mg/m ³ , 5000 ppm
EL (Canada)	Short-term value: 15000 ppm Long-term value: 5000 ppm
EV (Canada)	Short-term value: 54,000 mg/m ³ , 30,000 ppm

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WEL (Great Britain)	Long-term value: 9,000 mg/m ³ , 5,000 ppm Short-term value: 27400 mg/m ³ , 15000 ppm
OEL (Ireland)	Long-term value: 9150 mg/m ³ , 5000 ppm Short-term value: 27000 mg/m ³ , 15000 ppm
PEL (USA)	IOELV Long-term value: 9000 mg/m ³ , 5000 ppm
REL (USA)	Short-term value: 54,000 mg/m ³ , 30,000 ppm Long-term value: 9000 mg/m ³ , 5000 ppm
TLV (USA)	Short-term value: 54,000 mg/m ³ , 30,000 ppm Long-term value: 9000 mg/m ³ , 5000 ppm

· 8.2 Exposure controls

· General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

Avoid contact with the liquefied material.

Avoid contact with the eyes and skin.

· Respiratory protection:

Not required under normal conditions of use.

Wear appropriate NIOSH or EU approved respirator when ventilation is inadequate and occupational exposure limits are exceeded.

· Protection of hands:



Protective gloves

Gloves should provide protection from freezing temperatures.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· Body protection: Not required.

· Limitation and supervision of exposure into the environment: No special requirements.

· Risk management measures: See Section 7 for additional information.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· Appearance

Form: Compressed liquefied gas

Colour: Colourless

· Odour: Odourless

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· Odour threshold:	Not determined.
· pH-value:	Not applicable.
· Melting point/freezing point:	-56,6 °C (-69,9 °F) (-69.9 °F)(Triple Point)
· Initial boiling point and boiling range:	-78 °C (-108,4 °F) (-108 °F)(1 atm/101.3 kPa)
· Flash point:	Not applicable.
· Flammability (solid, gas):	Product is not flammable.
· Auto/Self-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure at 20 °C (68 °F):	5730 kPa
· Density at 20 °C (68 °F):	0,00197 g/cm ³ (0,02 lbs/gal) (as gas at 1 atm)
· Relative density:	Not determined.
· Vapour density:	Not determined.
· Evaporation rate:	Not applicable.
· Solubility in / Miscibility with water at 20 °C (68 °F):	2000 g/l
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Danger of receptacles bursting because of high vapour pressure when heated.
- **10.4 Conditions to avoid** Keep away from heat and direct sunlight.
- **10.5 Incompatible materials** No further relevant information available.
- **10.6 Hazardous decomposition products**
Possible in traces:
Carbon monoxide

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SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect**
- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer):

Substance is not listed.

- **Probable routes of exposure:**
Inhalation.
Eye contact.
Skin contact.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** Does not accumulate in organisms.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN-Number · DOT, ADR, IMDG, IATA 	<p>This product is eligible to ship as Limited Quantity by ground and ocean. UN1013</p>
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · DOT, ADR, IMDG, IATA 	<p>CARBON DIOXIDE</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · DOT 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class 2 · Label 2
<ul style="list-style-type: none"> · ADR 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class 2 2A · Label 2.2
<ul style="list-style-type: none"> · IMDG, IATA 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> · Class 2 · Label 2
<ul style="list-style-type: none"> · 14.4 Packing group · DOT, ADR, IMDG, IATA 	<p>This UN-number is not assigned a packing group. Not Regulated</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	<p>No</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: 	<p>Warning: Gases. 20 F-C,S-V</p>
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	<p>Not applicable.</p>

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· **Transport/Additional information:**

- **ADR**
- | | |
|----------------------------------|-----|
| · Transport category | 3 |
| · Tunnel restriction code | C/E |

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

Substance is not listed.

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is not listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **Proposition 65 (California):**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity for females:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **IARC (International Agency for Research on Cancer)**

Substance is not listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed)**

Substance is listed.

· **National regulations:**

- **Water hazard class:** Generally not hazardous for water.

· **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

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Substance is not listed.

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Product codes:**

20207, 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, GMMQCCCAN, GMMQCCINT, GRM01280, GRM01284, GRM01350, GRM01370

- **Abbreviations and acronyms:**

LDLo: Lowest Lethal Dose Observed
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bio-accumulable, Toxic
 SVHC: Substances of Very High Concern
 vPvB: very Persistent and very Bioaccumulative
 Press. Gas L: Gases under pressure – Liquefied gas

- **Sources**

Website, European Chemicals Agency (echa.europa.eu)
 Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
 Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
 Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
 Safety Data Sheets, Individual Manufacturers

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