

Safety Data Sheet

Test gas can 100 % vol. carbon dioxide

Safety Data Sheet in compliance with Regulation (EC) No 1907/2006 (as amended by Regulation (EU) No 453/2010)	
Safety data sheet no:	108252
Version:	3
Creation date:	25.07.2017
Valid from:	25.07.2017
Replaces version:	2

1. Identification of the substance/mixture and of the company/undertaking	
Product identifier	
Substance name/trade name:	Test gas 100 % vol. CO ₂ in pressurised gas pack
Product code:	ZT21-10000
Index no:	---
EC no:	204-696-9
CAS no:	124-38-9
REACH registration no:	Listed in Annex IV/V REACH, exempted from registration.
Other means of identification:	Test gas can 100 % vol. CO ₂ , Test gas 100 % vol. CO ₂
Uses:	Industrial and professional.
Details of the supplier of the safety data sheet	
Manufacturer/supplier:	Hermann Sewerin GmbH
Street address:	Robert-Bosch-Straße 3
City/town, country:	33334 Gütersloh, Germany
Email:	info@sewerin.com
Telephone/fax:	+49 (0)5241 934444
Emergency telephone number:	+49 (0)5241 934333 (office hours)

2. Hazards identification	
Classification of the substance or mixture	
Classification in accordance with Regulation (EC) No 1272/2008, Annex VII:	Aerosol (H229).
Label elements in accordance with Regulation (EC) No 1272/2008:	
Pictogram/hazard symbol:	---
Signal word/indication of danger:	Caution.
Hazard statements (H statements)	H229: Pressurized container: may burst if heated.
Precautionary statements (P statements)	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P251: Do not pierce or burn, even after use.
	P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F.

3. Composition/information on ingredients	
Substance/mixture:	Substance
Substance name:	Carbon dioxide
Concentration:	20 %
Index no:	---
EC no:	204-696-9
CAS no:	124-38-9

4. First aid measures	
Description of first aid measures	
Inhalation:	In high concentrations may cause asphyxiation. Symptoms may include loss of mobility and consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing has stopped.
Skin contact:	Skin contact is not considered a potential route of exposure.
Eye contact:	Eye contact is not considered a potential route of exposure.
Ingestion:	Ingestion is not considered a potential route of exposure.
Most important symptoms and effects, both acute and delayed:	Asphyxiation, loss of mobility and consciousness.
Indication of any immediate medical attention and special treatment needed	Apply artificial respiration if breathing has stopped.

5. Firefighting measures	
Extinguishing media	
Suitable extinguishing media:	Any known extinguishing media may be used.
Unsuitable extinguishing media:	None known.
Special hazards arising from the substance or mixture	
Specific hazards:	Exposure to fire may cause containers to rupture/explode.
Hazardous combustion products:	Incomplete combustion may form carbon monoxide.
Advice for firefighters	
Specific methods:	If possible, stop gas leakage. Move away from container and cool with water from a protected position.
Special protective equipment for firefighters:	In confined spaces use self-contained breathing apparatus.
Indication of any immediate medical attention and special treatment needed:	Apply artificial respiration if breathing has stopped.

6. Accidental release measures	
Personal precautions, protective equipment and emergency procedures:	Clear the area. Ensure adequate air ventilation. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.
Environmental precautions:	Try to stop gas release.
Methods and material for containment and cleaning up:	Ventilate area.
Reference to other sections:	---

7. Handling and storage	
Precautions for safe handling	
Measures to prevent fire and explosion:	Open valves slowly to prevent pressure spikes. Do not allow water to enter the container. Do not allow backfeed into the container. Use only equipment that is suitable for this product, its supply pressure and temperature.
Measures to prevent dust and aerosol generation:	---
Measures to protect the environment:	---
General hygiene precautions:	---
Conditions for safe storage, including any incompatibilities	
Information on storage conditions:	Store containers below 50 °C in a well-ventilated location.
Requirements for storage areas and containers:	---
Specific end use(s)	
Industry or sector-specific guidance:	---

8. Exposure controls/personal protection	
Occupational exposure limits and/or biological limits	
Occupational exposure limits for Germany	
Substance name, CAS no:	Carbon dioxide, 124-38-9
Specification:	TRGS 900
Value:	9100 mg/m ³ , 5000 ppm
Acceptable peak concentration:	2
Teratogenic:	---
Monitoring procedures:	---
DNEL and PNEC values	
Substance name, CAS no:	---
Specification:	---
Value:	---
Control banding (e.g. ILO, EMKG)	
Relevant parameters/classification:	---
Relevant protection guidelines:	---
Value:	---
Exposure controls	
Appropriate engineering controls:	Provide general and local ventilation/extraction to keep concentrations below explosion limits and/or to comply with occupational exposure limits (where applicable).
Individual protection measures, such as personal protective equipment:	Ensure adequate ventilation. No smoking when handling the product. Gas is heavier than air. It can accumulate in confined spaces, particularly at floor level or in lower areas.
Environmental exposure controls:	---




9. Physical and chemical properties	
Appearance, state of aggregation:	Gas.
Colour:	Colourless gas.
Odour:	No perceptible odour.
Molecular weight:	44
Melting point:	-56.6 °C
Boiling point:	-78.5 °C
Critical temperature:	30 °C
Vapour pressure:	57.3 bar
Relative density, gas (air =1):	0.82
Solubility in water:	2000 mg/l
Flammability range:	None.
Ignition temperature:	None.

10. Stability and reactivity	
Reactivity:	Unreactive under normal temperature and pressure conditions.
Chemical stability:	Stable under normal temperature and pressure conditions.
Possibility of hazardous reactions:	None.
Conditions to avoid:	None.
Incompatible materials:	None.
Hazardous decomposition products:	None.

11. Toxicological information	
Information on toxicological effects:	High concentrations cause rapid circulatory insufficiency. Symptoms include headaches, nausea and vomiting, which may also lead to loss of consciousness.

12. Ecological information	
Toxicity:	When discharged in large quantities may contribute to the greenhouse effect.
Persistence and degradability:	No data available.
Bioaccumulative potential:	No data available.
Mobility in soil:	No data available.
Results of PBT and vPvB assessment:	No data available.
Other adverse effects:	No data available.

13. Disposal considerations	
Waste treatment methods:	Prevent runoff into sewerage systems, cellars, working pits and similar places where accumulation of the gas could be dangerous. Contact supplier if guidance is required.
Treatment of contaminated packaging:	Contact supplier for special recommendations. Recycling: 15 01 04 Metallic packaging.
Waste code in accordance with the German Waste Ordinance (AVV):	16 05 05 – Gases in pressure containers other than those mentioned in 16 05 04.
Special precautions:	---
Relevant EU or other provisions:	---

14. Transport information	
UN number:	UN 1950
Classification under ADR/RID regulations:	 2.2: Non-flammable non-toxic gases.
Classification under IMDG Code/ICAO-TI/IATA-DGR regulations:	 2.2: Non-flammable non-toxic gases.
Surface transport	
HI no:	---
UN proper shipping name:	UN 1950 AEROSOLS, asphyxiant, 2.2, (E)
Transport hazard class(es):	2
Classification code:	5 A
Packing group:	---
Packing instruction(s):	P207, LP02
Tunnel restriction:	E: Passage forbidden through tunnels of category E
ADR limited quantities:	 The total gross mass of the packages must not exceed 30 kg.

Transport by sea	
GGVSee/IMO-IMDG code:	Class 2
Description of the goods:	AEROSOLS
Class:	2.2
Packing group:	---
EMS:	F-D, S-U
Air transport	
ICAO/IATA-DGR:	Packing instruction (cargo): 203 Packing instruction (passenger): 203
Technical name:	AEROSOLS, non-flammable
Class:	2.2
IATA packing group:	---
IATA passenger and cargo aircraft:	Allowed.
Packing instruction:	Y203, 203
Cargo aircraft only:	Allowed.
Packing instruction:	203
Environmental hazards - Indication of environmentally hazardous substances	
ADR/RID / IMDG Code / ICAO-TI / IATA-DGR:	None.
Marine pollutant:	None.
Special precautions for user	
Other transport information:	Ensure that the valve lock nut is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

15. Regulatory information

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

European requirements:	Directive 2013/10/EU, 2008/47/EC, amendment of the aerosol dispenser directive 75/324/EEC. Regulation EG No. 1907/2006 (REACH). Regulation EG No. 1272/2008 (CLP).
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National regulations:

	Ensure compliance with all national and local regulations.
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16. Other information	
Changes to the previous version:	Section 15.
Training for employees:	www.industriegaseverband.de http://www.eiga.org/
Conversion of units:	0.001 % vol. = 10 ppm
Further information:	The risk of asphyxiation is often overlooked and must be stressed during operator training. Before using the product in any new process or experiment, a thorough material compatibility and safety study should be carried out. This information does not imply a contractual confirmation of product characteristics. It is based on current knowledge.

108252 – 25.07.2017 – Subject to technical changes.