MOTOAIRBAG®
airbag for motorcyclist

EQUIAIRBAG®
airbag for horse rider

Safety Data Sheet

Rev.date: 02.01.2025

1 – IDENTIFICATION OF THE SUBSTANCE/MISTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier	
Trade name:	RECHARGE KIT or SINGLE BOTTLE (KIT RICARICA O BOMBOLA)
Chemical description :	Carbon dioxide CAS-No.: 124-38-9 EC-No.: 204-696-9 EC Index-No.: ---
Registration-No.:	Listed in Annex IV / V REACH, exempted from registration.
Chemical formula:	CO2
1.2. Relevant identified uses of the substance or mixture	Industrial and professional. Perform risk assessment prior to use. Test gas/Calibration gas. Laboratory use. Food applications. Contact supplier for more information on uses.
1.3. Details of the supplier of the safety data sheet	**D.P.I. Safety s.r.l** **s.s. dei giovi 11** **20080 Badile – Milano – Italia** **+39.328.1471132** www.motoairbag.com **info@motoairbag.com**
1.4. Emergency telephone number	**+39.347.5852203**

2 – HAZARD IDENTIFICATIONS

Contains compressed CO_2 gas in a small cylinder (60cc-45grams).

2.1. Classification of the substance or mixture	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	
Physical hazards	Gases under pressure: Liquefied gas H280
2.2. Label elements	
Labelling according to Regulation (EC) No. 1272/2008 [CLP]	
Hazard pictograms (CLP):	 GHS04
Signal word (CLP):	Warning
Hazard statements (CLP):	H280 – Contains gas under pressure; may explode if heated.
Precautionary statements (CLP)	
- Storage:	P403 – Store in a well-ventilated place.
2.3. Other hazards	Asphyxiant in high concentrations. Contact with liquid may cause cold burns/frostbite. In high concentrations CO2 causes rapid circulatory insufficiency even at normal levels of oxygen concentration. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness and death.

3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances			
Name	**Product identifier**	%	**Classification according to Regulation (EC) No. 1272/2008 [CLP]**
Carbon dioxide	(CAS-No.) 124-38-9 (EC-No.) 204-696-9 (EC Index-No.) --- (Registration-No.) *1	99,5	Press. Gas (Liq.), H280
Contains no other components or impurities which will influence the classification of the product. **1: Listed in Annex IV / V REACH, exempted from registration.*			
3.2. Mixtures	Not applicable		

4 - FIRST AID MEASURES

4.1. Description of first aid measures	
- Inhalation:	Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Perform cardiopulmonary resuscitation if breathing stopped.
- Skin contact:	In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance.
- Eye contact:	Immediately flush eyes thoroughly with water for at least 15 minutes.
- Ingestion:	Ingestion is not considered a potential route of exposure.
4.2. 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. Refer to section 11.
4.3. Indication of any immediate medical attention and special treatment needed	**None**

5 – FIREFIGHTING MEASURE

5.1. Extinguishing media	
- Suitable extinguishing media:	Water spray or fog.
- Unsuitable extinguishing media:	Do not use water jet to extinguish.
5.2. Special hazards arising from the substance or mixture	
Specific hazards:	Exposure to fire may cause containers to rupture/explode.
5.3. Advice for firefighters	
Specific methods:	Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems. If possible, stop flow of product. Use water spray or fog to knock down fire fumes if possible. Move containers away from the fire area if this can be done without risk.
Special protective equipment for fire fighters:	In confined space use self-contained breathing

	apparatus. Standard protective clothing and equipment (Self-Contained Breathing Apparatus) for fire fighters. Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask. Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters.

6- ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures	Try to stop release. Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Act in accordance with local emergency plan. Stay upwind. Oxygen detectors should be used when asphyxiating gases may be released.
6.2. Environmental precautions:	Try to stop release.
6.3. Methods and material for containment and cleaning up:	Keep area evacuated and free from ignition sources until any spilled liquid has evaporated (ground free from frost).
6.4. Reference to other sections:	See also sections 8 and 13.

7- HANDLING AND STORAGE

7.1. Precautions for safe handling:	
Safe use of the product:	The product must be handled in accordance with good industrial hygiene and safety procedures. Only experienced and properly instructed persons should handle gases under pressure. Consider pressure relief device(s) in gas installations. Ensure the complete gas system was (or is regularly) checked for leaks before use. Do not smoke while handling product. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Avoid suck back of water, acid and alkalis. Do not breathe gas. Avoid release of product into atmosphere. Containers, which contain or have contained flammable or explosive substances must not be inerted with liquid carbon dioxide. Potential production of solid CO2 particles must be ruled out. In order to rule out potential electrostatic discharge production, the system must be adequately grounded.
Safe handling of the gas receptacle:	Refer to supplier's container handling instructions. Do not allow backfeed into the container. Protect cylinders from physical damage; do not drag, roll, slide or drop. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier.

	Keep container valve outlets clean and free from contaminants particularly oil and water. Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to transfer gases from one cylinder/container to another. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not remove or deface the engraving provided by the supplier for the identification of the cylinder contents. Suck back of water into the container must be prevented.
7.2. Conditions for safe storage, including any incompatibilities:	Observe all regulations and local requirements regarding storage of containers. Containers should not be stored in conditions likely to encourage corrosion. Container valve guards or caps should be in place. Containers should be stored in the vertical position and properly secured to prevent them from falling over. Stored containers should be periodically checked for general condition and leakage. Keep container below 40°C in a well ventilated place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials.
7.3. Specific end use(s):	**None**

8- EXPOSURE CONTROL/PERSONAL PROTECTION

8.1. Control parameters:		
Carbon dioxide (124-38-9)		
OEL: Occupational Exposure Limits		
EU	TWA IOELV (EU) 8 h [mg/m³]	9000 mg/m³
	TWA IOELV (EU) 8 h [ppm]	5000 ppm
United Kingdom	WEL - LTEL - UK [mg/m³]	9150 mg/m³
	WEL - LTEL - UK [ppm]	5000 ppm
	WEL - STEL - UK [mg/m³]	27400 mg/m³
	WEL - STEL - UK [ppm]	15000 ppm
Ireland	OEL (IE)-(8-hour reference period) [mg/m3]	9000 mg/m³
	OEL (IE)-(8-hour reference period) [ppm]	5000 ppm
	OEL (IE)-(15min reference period) [mg/m3]	27000 mg/m³
	OEL (IE)-(15min reference period) [ppm]	15000 ppm
	Notes (IE)	IOELV

DNEL (Derived-No Effect Level): None available
PNEC (Predicted No-Effect Concentration): None available

9-PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties	
Appearance	
Physical state at 20°C / 101.3kPa:	Gas
Colour:	Colourless.

Odour:	Odourless. No odour warning properties.
Odour threshold:	Odour threshold is subjective and inadequate to warn of overexposure.
pH:	Not applicable for gases and gas mixtures.
Melting point / Freezing point:	-78,5 °C At atmospheric pressure dry ice sublimes into gaseous carbon dioxide.
Boiling point:	-56,6 °C
Flash point:	Not applicable for gases and gas mixtures
Evaporation rate:	Not applicable for gases and gas mixtures
Flammability (solid, gas):	Non-flammable.
Explosive limits:	Non-flammable.
Vapour pressure [20°C]:	57,3 bar(a)
Vapour pressure [50°C]:	Not applicable.
Vapour density:	Not applicable.
Relative density, liquid (water=1):	**0,82**
Relative density, gas (air=1):	**1,52**
Water solubility:	2000 mg/l Completely soluble.
Partition coefficient n-octanol/water (Log Kow):	**0,83**
Auto-ignition temperature:	Non-flammable.
Decomposition temperature:	Not applicable.
Viscosity:	No reliable data available.
Explosive properties:	Not applicable.
Oxidising properties:	Not applicable.
9.2. Other information	
Molar mass:	44 g/mol
Critical temperature [°C]:	30 °C
Other data:	Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

10-STABILITY AND REACTIVITY

10.1. Reactivity:	No reactivity hazard other than the effects described in sub-sections below.
10.2. Chemical stability:	Stable under normal conditions.
10.3. Possibility of hazardous reactions:	None.
10.4. Conditions to avoid:	Avoid moisture in installation systems.
10.5. Incompatible materials:	None. For additional information on compatibility refer to ISO 11114.
10.6. Hazardous decomposition products:	**None**

11-TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects:	
Acute toxicity:	Unlike simple asphyxiants, carbon dioxide has the ability to cause death even when normal oxygen levels (20-21%) are maintained. 5% CO2 has been found to act synergistically to increase the toxicity of certain other gases (CO, NO2). CO2 has been shown to enhance the production of carboxy- or methaemoglobin by these gases possibly due to carbon dioxide's stimulatory effects on the respiratory and circulatory systems. For more information, see 'EIGA Safety Info 24: Carbon Dioxide, Physiological Hazards' at www.eiga.eu.

Skin corrosion/irritation:	No known effects from this product.
Serious eye damage/irritation:	No known effects from this product.
Respiratory or skin sensitisation:	No known effects from this product.
Germ cell mutagenicity:	No known effects from this product.
Carcinogenicity:	No known effects from this product.
Toxic for reproduction: Fertility:	No known effects from this product.
Toxic for reproduction: unborn child:	No known effects from this product.
STOT-single exposure:	No known effects from this product.
STOT-repeated exposure:	No known effects from this product.
Aspiration hazard:	Not applicable for gases and gas mixtures.

12-ECOLOGICAL INFORMATION

12.1. Toxicity	
Assessment:	No ecological damage caused by this product.
EC50 48h - Daphnia magna [mg/l]:	No data available
EC50 72h - Algae [mg/l]:	No data available
LC50 96 h - Fish [mg/l]:	No data available
12.2. Persistence and degradability	
Assessment:	No ecological damage caused by this product
12.3. Bioaccumulative potential	
Assessment:	No ecological damage caused by this product
12.4. Mobility in soil	
Assessment:	Because of its high volatility, the product is unlikely to cause Ground or water pollution. Partition into soil is unlikely.
12.5. Results of PBT and vPvB assessment	
Other adverse effects:	No known effects from this product.
Effect on the ozone layer:	None.
Global warming potential [CO2=1]:	**1**
Effect on global warming:	Contains greenhouse gas(es). When discharged in large quantities may contribute to the greenhouse effect.

13-WASTE CONSIDERATIONS

13.1. Waste treatment methods:	May be vented to atmosphere in a well ventilated place. Discharge to atmosphere in large quantities should be avoided. Do not discharge into any place where its accumulation could be dangerous. Return unused product in original cylinder to supplier
List of hazardous waste codes (from Commission Decision 2000/532/EC as amended	16 05 05: Gases in pressure containers other than those mentioned in 16 05 04.
13.2. Additional information:	External treatment and disposal of waste should comply with applicable local and/or national regulations.

14-TRANSPORT INFORMATION

14.1. UN-number:	2037
14.2. UN proper shipping name:	
Transport by road/rail (ADR/RID):	RECEPTACLES, SMALL, CONTAINING GAS (GAS CATRIDGES)
Transport by air (ICAO-TI / IATA-DGR):	RECEPTACLES, SMALL, CONTAINING GAS (GAS CATRIDGES)
Transport by sea (IMDG):	RECEPTACLES, SMALL, CONTAINING GAS (GAS CATRIDGES)
14.3. Transport hazard class(es):	
Labelling:	 10 x 10 cm Limited quantities
Transport by road/rail (ADR/RID)	
Class:	2
Classification code:	5A
Hazard identification number	
Tunnel Restriction	E – Passage forbidden through tunnels of category
Transport by air (ICAO-TI / IATA-DGR) Class / Div. (Sub. risk(s)):	2.2
Transport by sea (IMDG) Class / Div. (Sub. risk(s)):	2.2
Emergency Schedule (EmS) – Fire:	F-D
Emergency Schedule (EmS)-Spillage:	S-U
14.4. Packing group:	
Transport by road/rail (ADR/RID):	Not applicable
Transport by air (ICAO-TI / IATA-DGR):	Not applicable
Transport by sea (IMDG):	Not applicable
14.5. Environmental hazards:	
Transport by road/rail (ADR/RID):	None
Transport by air (ICAO-TI / IATA-DGR):	None
Transport by sea (IMDG):	None
14.6. Special precautions for user:	
Transport by road/rail (ADR/RID):	P003
Transport by air (ICAO-TI / IATA-DGR):	
Transport by sea (IMDG):	P003

Special transport precautions

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 there is adequate ventilation.
- Ensure that containers are firmly secured.

15-REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:	
EU-Regulations	
Restrictions on use:	**None**
Seveso Directive: 2012/18/EU (Seveso III):	**Not covered**
National regulations	
National legislation:	Ensure all national/local regulations are observed.
Water hazard class (WGK Germany):	Not hazardous to water.

16-OTHER INFORMATION

Indication of changes	Revised safety data sheet in accordance with commission regulation (EU) No 2015/830.
Abbreviations and acronyms:	ATE - Acute Toxicity Estimate CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 EINECS - European Inventory of Existing Commercial Chemical Substances CAS# - Chemical Abstract Service number; PPE - Personal Protection Equipment LC50 - Lethal Concentration to 50 % of a test population RMM - Risk Management Measures; PBT - Persistent, Bioaccumulative and Toxic vPvB - Very Persistent and Very Bioaccumulative ´ STOT- SE: Specific Target Organ Toxicity - Single Exposure CSA - Chemical Safety Assessment; EN - European Standard; UN - United Nations ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road IATA - International Air Transport Association IMDG code - International Maritime Dangerous Goods RID - Regulations concerning the International Carriage of Dangerous Goods by Rail WGK - Water Hazard Class; STOT - RE : Specific Target Organ Toxicity - Repeated Exposure
Training advice:	The hazard of asphyxiation is often overlooked and must be stressed during operator training. For more guidance, refer to EIGA SL 01 “Dangers of Asphyxiation”, downloadable at http://www.eiga.eu.
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