

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

*Trade Name: CO2 Cylinder

*Article number: N/A

* Relevant identified uses of the substance or mixture and uses advised against

Application of the substance/mixture: for tire aerated

Details of the supplier of the safety data sheet:

Zhongshan Baro Metal Products Co.,Ltd.

No.38, Wanfu Road, Jiuzhouji, Xiaolan Town, Zhongshan City

E-mail: 13380882086@163.com

Emergency telephone number

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2. Hazards Identification

Classification of the substance or mixture

*Classification according to Regulation (EC) No 1272/2008



GHS 04 Gas Cylinder

H281: Contains refrigerated gas; may cause cryogenic burns or injury

* Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of Regulation 1272/2008/EC.

*Classification system:

The classification is according to the latest edition of EU Regulation 1272/2008/EC, and extended by company and literature data.

*Label elements

*Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

*Hazard pictograms



GHS04

*Signal word: Warning

Printing Date: Jan 11, 2021

Report No.: MSDS202101080059

Revision: Jan. 11, 2021

Trade name: CO2 Cylinder

***Hazard-determining components of labeling**

N/A

***Hazard statements**

H281: Contains refrigerated gas; may cause cryogenic burns or injury

***Precautionary statements**

P282: Wear cold insulating gloves/face shield/eye protection.

P336: Thaw frosted parts with lukewarm water. Do not rub affected area.

P315: Get immediate medical advice/attention

P403: Store in a well-ventilated place.

P405: Store locked up.

Information concerning particular hazards for human and environment: None**Other hazards: N/A*****Results of PBT and vPvB assessment*****PBT:** Not applicable***vPvB:** Not applicable**3. Composition/information on ingredients****Chemical characterization**

Chemical Name	CAS No.	EC No.	Weight (%)
CO2	124-38-9	204-696-9	100.00

4. First Aid Measures***After inhalation:** In case of unconsciousness place patient stably in side position for transportation***After skin contact:** ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Get immediate medical advice/attention.***After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.***After swallowing:** No need.**Most important symptoms and effects, both acute and delayed:** No further relevant information available**5. Firefighting Measures**

In general, vacate area, call emergency services. If unable to extinguish fire keep containers cool with water hosed from a safe distance. Inform the emergency services of the nature of the product and the possibility of rupture (the cylinder is fitted with a burst cap which will rupture and allow contents to completely discharge if heat causes the carbon dioxide pressure to exceed the maximum permissible service level). Severe danger of rocketing containers.

6. Accidental Release Measures***Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Printing Date: Jan 11, 2021

Report No.: MSDS202101080059

Revision: Jan. 11, 2021

Trade name: CO2 Cylinder

Use respiratory protective device against the effects of fumes/dust/aerosol.

Avoid contact with eyes.

Avoid contact with skin.

***Environmental precautions:**

Do not allow product to reach sewage system or any water course.

***Methods and material for containment and cleaning up:**

Pick up mechanically. Dispose contaminated material as waste according to item 13.

***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.

7. Handling and Storage***Handling:*****Precautions for safe handling:**

Never lift a container by the cap. Use a trolley or other suitable device or technique for transporting heavy containers, even for a short distance. Never use direct flame or electrical heating devices to raise the pressure of a container. Containers should not be subjected to temperatures above 50°C. Never attempt to refill an empty container. Never attempt to transfer gases from one container to another. Do not use containers as rollers or supports, or for any other purpose than to contain the gas as supplied. Do not subject containers to abnormal mechanical shocks which may cause damage to their integrity.

***Information about fire - and explosion protection:**

Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities:**Storage:**

Containers should be stored in a well ventilated area. Store containers in a location free from fire risk and away from sources of heat and ignition. Designation as a "No smoking area" is recommended. The storage area should be kept clear and access should be restricted to authorised persons only. The area should be clearly marked as a store. Containers in storage should be properly secured to prevent toppling or rolling. Protect containers stored in the open against rusting and extremes of weather. Containers should not be stored in conditions likely to encourage corrosion. Store full and empty containers separately and arrange full containers so that the oldest stock is used first. Gas containers should be segregated in the storage area according to the various categories. Containers held in storage should be periodically checked for general condition and leakage.

***Further information about storage conditions:**

Store away from foodstuffs.

Store away from oxidising agents.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

8. Exposure Controls / Personal Protection***Additional information about design of technical facilities:** No further data, see item 7.

Printing Date: Jan 11, 2021

Report No.: MSDS202101080059

Revision: Jan. 11, 2021

Trade name: CO2 Cylinder

Control parameters** Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs** No dataPNECs** No data***Additional information:** The lists valid during the making were used as basis.***Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Respiratory protection

Not required.

Protection of hands:

Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles

9. Physical and Chemical Properties**Form:** Liquefied pressure gas, colourless, odourless, nonflammable**Molecular weight:** 44.01**Vapour pressure (15°C)** 50.85 bar**Density of gas (15°C, 1 bar):** 1.8474 g/l**Specific gravity, gas (air = 1):** 1.528**Critical temperature:** 31.1°C

Printing Date: Jan 11, 2021

Report No.: MSDS202101080059

Revision: Jan. 11, 2021

Trade name: CO2 Cylinder**Critical pressure:** 73.825 bar**Triple point (5.185 bar):** -56.6°C**Solubility of gas in water (15°, 1 bar):** 1.9786 g/l

10. Chemical Stability and Reactivity Information

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.**Materials to be avoided:** Strong oxidizing agents, strong acid and strong base**Dangerous reactions:** No dangerous reactions known.**Dangerous products of decomposition:** No dangerous decomposition products known

11. Toxicological Information

Carbon dioxide (which is normally present in atmospheric air at the level of approximately 350 vpm (0.035%), regulates the breathing function and an increase in concentration will cause increased breathing rate. The occupational exposure standard (OES) is 5000 vpm (0.5%), but changes in the breathing rate may not be noticed until there is a concentration of 20.000 vpm (2%) when the rate will increase to about 50% above the normal level. Prolonged exposure at this level for several hours may cause a headache and a feeling of exhaustion.

At high concentrations carbon dioxide may cause asphyxiation and can paralyse the respiratory centre. Breathing an atmosphere rich in carbon dioxide can cause immediate loss of consciousness and rapid death. Symptoms of asphyxiation may include rapid and gasping respiration, rapid fatigue, nausea, vomiting, cyanosis and may lead to loss of consciousness or death from anoxia.

12. Ecological Information

Toxicity**Aquatic toxicity:** No further relevant information available.***Persistence and degradability** No further relevant information available.***Behaviour in environmental systems:*****Bioaccumulative potential** No further relevant information available.***Mobility in soil** No further relevant information available.***Additional ecological information:*****General notes:** Generally not hazardous for water***Results of PBT and vPvB assessment*****PBT:** Not applicable.***vPvB:** Not applicable.***Other adverse effects** No further relevant information available.

13. Disposal Considerations

Product:**Recommendation:**

Smaller quantities can be disposed of with household waste.

Uncleaned packagings:

Printing Date: Jan 11, 2021

Report No.: MSDS202101080059

Revision: Jan. 11, 2021

Trade name: CO2 Cylinder

Recommendation: Disposal must be made according to official regulations.

14. Transportation Information

UN Number: N/A

EMS Number: N/A

Marine pollutant: NO

Proper shipping name: N/A

Not Restricted As per IMDG CODE Special Provision 191, and AMENDMENTS TO THE INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG) CODE.

The article belongs to Receptacles, small, contains gas. It contains non-flammable and non-toxic gas, and meets the requirements of special provision A98, therefore, it is not subject to the IATA DGR.

15. Regulatory Information

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

*National regulations:

*Other regulations, limitations and prohibitive regulations

The product is listed in the following chemical inventories:

AICS Australia

DSL Canada

TSCA USA

MITI Japan

KECI Korea

PICCS Philippines

Water hazard class (WGK): generally not hazardous to water (self classification according to VwVWS)

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

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.

*Reason for Changes Chapter 10 - Incompatible materials corrected

*Department issuing MSDS: Quality Management Department (Product safety & Dangerous Goods)

*Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning

the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods



Material Safety data sheet

Page 7 of 7

According to EC No 1907/2006/EC, 1272/2008/EC, EU No 2015/830

Printing Date: Jan 11, 2021

Report No.: MSDS202101080059

Revision: Jan. 11, 2021

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IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)