SAFETY DATA SHEET

DISPOSABLE GAS CYLINDERS CO2/100 & CO2/101

1. IDENTIFICATION OF THE SUBSTANCE / COMPOUND AND OF THE COMPANY

NAME: CARBON DIOXIDE (Co2) E290
USE OF THE SUBSTANCE / COMPOUND:
Description/Use
Food additive to charge with gas/refrigerate drinks.
Co2 enrichment for aquariums.

COMPANY IDENTIFICATION:
Sealey Quality Machinery, Kempson Way, Suffolk Business Park, Bury St. Edmunds, Suffolk. IP32 7AR
Telephone: 01284 757500 Fax:01284 703534 e-mail:sales@sealey.co.uk

2. HAZARD IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR COMPOUND:
Product not classified among the dangerous ones under the provisions of the directives 67/548/EEC and 1999/45/EC and amendments or adaptations.
Danger Symbols: None
R-Phrases: None

FREE FROM THE RECORDING OBLIGATION ACCORDING TO ARTICLE 2, SECTION 7, LETTER a) of the (EC) regulation nr. 1907/2006 (REACH)

DANGER IDENTIFICATION:
At high concentration, it may cause suffocation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

NAME CARBON DIOXIDE
CONCENTRATION (C)
> 99.99%
CLASSIFICATION

Cas No 124-38-9
EC No 204-696-9

4. FIRST AID MEASURES

INHALATION: In case of indisposition or suffocation symptoms, move the injured person away from the accident site to a fresh and ventilated place. Immediately call a doctor.
SKIN CONTACT: Immediately remove the contaminated clothes and wash the affected part for at least 15 minutes. Immediately seek medical advice.
EYE CONTACT: Immediately wash down for at least 15 minutes. Immediately seek medical advice.
INGESTION: Unlikely way of exposure.

5. FIRE-FIGHTING MEASURES

Closed containers exposed to fire heat may generate overpressure and explode.
Extinction Means: All existing fire extinguishing means.
Equipment: Wear complete equipment with eye shield helmet and neck protection, pressure or demand breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES PERSONAL PRECAUTIONS

Personal precautions: Evacuate area. Wear self contained breathing apparatus when entering affected area unless atmosphere is proved to be safe. Check using a carbon dioxide measuring device. Ensure adequate air ventilation. Post warning notices.
Environmental: Try to stop release if it is safe to do so. Prevent from entering sewers, basements and work pits, or any place where its accumulation can be dangerous.
Clean up methods: Ventilate area.

Use the breathing apparatus to enter the concerned area. Evacuate the area and ensure proper ventilation.
ENVIRONMENTAL PRECAUTIONS: Prevent it from accessing sewage, basements, excavations and places where accumulation can be dangerous.
DEGASSING METHODS: Let it evaporate.

7. STORAGE AND HANDLING

HANDLING: For container handling, use proper personal protective equipment such as safety shoes and gloves.
Carefully handle the containers, thus avoiding violent collisions between them or against other surfaces, as well as falls and other mechanical strains susceptible to damage their integrity / resistance.
STORAGE: Gas-based containers cannot be directly exposed to sunshine rays, nor be close to heat sources or in places where temperature can reach 50°C or more.
Ensure proper ventilation (natural or forced) where carbon dioxide is stored and/or used.

8. CHECK FOR EXPOSURE/PERSONAL PROTECTION

THRESHOLD VALUES FOR EXPOSURE:

TLV®-TWA:	5000ppm
TLV®-STEL:	30000ppm
OEL (UK)-LTEL:	5000ppm
OEL (UK)-STEL:	15000ppm
ILV (EU) – 8 H:	5000ppm
ILV (EU) – 8 H:	9000 mg/m3

EXPOSURE CHECKS: Avoid gas inhalation by adopting suitable aeration / ventilation systems.
PROFESSIONAL EXPOSURE CHECKS.
ENVIRONMENTAL EXPOSURE CHECKS.

9. PHYSICAL & CHEMICAL PROPERTIES

GENERAL INFORMATION:
Physical State at 20°C Liquefied gas
Colour Colourless
Odour Not perceptible

RELEVANT INFORMATION ON HEALTH, SAFETY AND ENVIRONMENT:
Molecular Weight 44
Melting Point - 56,6°C
Boiling Point - 78,5 (s) °C
Critical Temperature 30°C
Vapour Pressure 57,3 bar (20°C)
Density (g cm-3, in s.c.) 1,98 × 10-3
Solubility into water 1,45 g/l a 293 K
Flash Limits Non flammable
OTHER INFORMATION:

10. STABILITY & REACTIVITY

CONDITIONS TO AVOID: The product is stable under normal use and storage conditions.
DANGEROUS DECOMPOSITION PRODUCTS:
At temperatures higher than 1,700°C, it decomposes with the formation of carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Carbon dioxide is not a toxic gas and is always in the atmosphere in minimum percentages (almost 0.03%); it can be tolerated without physiological consequences even for continuous exposures up to 0.5%.
Above 0.5%, it generates physiological consequences such as breathing rate increase, indisposition and suffocation.
Symptoms include headache and vomit which could lead to lose consciousness.

12. ECOLOGICAL INFORMATION

ECOTOXICITY
MOBILITY
PERSISTENCE AND DEGRADABILITY
BIOACCUMULATIVE POTENTIAL
RESULTS OF THE PBT ASSESSMENT
OTHER HARMFUL EFFECTS: Carbon dioxide (Co2) is the main cause of the accelerated greenhouse effect.

13. DISPOSAL CONSIDERATIONS

Do not directly release in the atmosphere.
Dispose the container according to the applicable national regulations. CER code applicable 20 01 40

14. TRANSPORT INFORMATION

ROAD-RAIL TRANSPORT:
Class ADR/RID: 2
UN: 1013
Packing Group: n.a.
Label: 2.2
Proper Shipping Name: CARBON DIOXIDE

MARITIME TRANSPORT:
Classe IMO: 2
UN: 1013
Packing Group: n.a.
Label: 2.2
EMS: F-C, S-V
Proper Shipping Name: CARBON DIOXIDE

AIR TRANSPORT:
IATA: 2
UN: 1013
Packing Group: n.a.
Label: 2.2
Cargo:
Packing Instructions: 200
Max Quantity : 150 kg.
Pass.:
Packing Instructions: 200
Max Quantity: 75 kg.
ERG code 2L

15. REGULATORY INFORMATION

Not included in attachment I
Symbols: None
Risk Phrases: None
Safety Phrases: None

16. OTHER INFORMATION

GENERAL BIBLIOGRAPHY:
1. Directive1999/45/CE and amendments or adaptations
2. Directive 67/548/CEE and amendments or adaptations
3. Regulation (CE) 1907/2006 of the European Parliament (REACH)
4. The Merck Index. Ed. 10
5. Handling Chemical Safety
6. Niosh - Registry of Toxic Effects of Chemical Substances
7. INRS - Fiche Toxicologique
8. Patty - Industrial Hygiene and Toxicology

Remark for the user:
The information on this sheet is based on the available knowledge at the time of our last revision.
The user must make sure that information is appropriate and complete for the specific product destination.
This document cannot be considered as a warranty for specific properties of the product.
As product use does not fall on our direct control, the user must bear full responsibility for complying with all the rules and regulations in force relating to hygiene and safety. We disclaim any responsibility for improper uses.