

Product Name	Bossweld CO <sup>2</sup> Disposable Gas Bottle
Part Number	600034
SDS Document Number	SDS_Bossweld_CO2 Gas Bottle_V1.2_051225
Issue Date	05/12/25

## 1 Product identifier & identity for the chemical

### 1.1 Product Identifier

Product Name: Bossweld CO<sup>2</sup> Disposable Gas Bottle  
Part Numbers: 600034  
Synonyms: N/A

### 1.2 Other means of identification

Carbon Dioxide

### 1.3 Recommended use of the chemical and restrictions on use

CO<sup>2</sup> gas for welding. Not to be used for any other purpose.

### 1.4 Suppliers name, address and phone number

Supplier Name: Dynaweld Industrial Supplies Pty Ltd  
Address: Building 2, 10 Jessica Place, Prestons NSW 2214, Australia  
Phone: +61 2 8761 6500  
Email: sales@dynaweld.com.au  
Web Site: https://www.dynaweld.com.au

### 1.5 Emergency phone number

Emergency Phone: +61 2 8761 6500 (Australia)

## 2 Hazard Identification

### 2.1 Classification of the hazardous chemical

Press. Gas, H280 – Contains gas under pressure; may explode if heated.

### 2.2 Label elements, including precautionary statements

Signal Word: WARNING

Symbols:



Hazard Statements:

H280	Contains gas under pressure; may explode if heated
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Precautionary Statements Storage

P410 + P403	Protect from sunlight. Store in a well-ventilated place.
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### 2.3 Other hazards which do not result in classification

In high concentrations CO<sub>2</sub> causes rapid circulatory insufficiency even at normal levels of oxygen concentration. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness and death.

Asphyxiant in high concentrations.

Contact with liquid may cause cold burns/frostbite.

The substance/mixture has no endocrine disrupting properties.

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### 3 Composition/information on ingredients

#### 3.1 Identity of chemical ingredients

Chemical Name	CAS No.	Concentration Range (%)
Carbon Dioxide	(124-38-9)	≥ 99.99

#### 3.2 CAS number and other unique identifiers

Note: See section 3.1

#### 3.3 Concentration of ingredients

Note: See section 3.1

### 4 First Aid Measures

#### 4.1 Description of necessary first aid measures

General:	High concentrations can cause rapid suffocation and can also increase respiration and heart rate. Contact with liquid may cause frostbite. Avoid breathing gas
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.
Skin contact:	Contact with liquid may cause cold burns/frostbite. In case of frostbite wash with lukewarm water for at least 15 minutes. Apply a sterile dressing. Seek medical attention if symptoms persist.
Eye contact:	In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.
Ingestion:	Not considered a normal route of exposure.

#### 4.2 Symptoms caused by exposure

Skin contact:	In case of lesions due to low temperature, please refer to the here below instructions: Immediately remove the contaminated clothes. Do not rub the skin burn or break blisters. Put the burned body parts in the lukewarm water (40°C). In case of burn of your fingers and/or hands, if it is possible, separate them with strips of gauze or clean clothes.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.
Inhalation:	In high concentrations may cause asphyxiation. Symptoms may be loss of mobility and consciousness. Victims may not be aware of.

#### 4.3 Medical Attention and Special Treatment

Low concentrations of CO<sub>2</sub> cause increased respiration and headache.

High concentrations of CO<sub>2</sub> cause rapid respiratory failure. Symptoms are headache, nausea, vomiting and loss of consciousness. Victims may not be aware of.

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## 5 Fire Fighting Measures

As shipped, this product is non-flammable. However, welding arc and sparks can ignite combustibles and flammable products. Read and understand *WTIA Technical Note No. 7 Health and Safety in Welding* before using this product.

### 5.1 Suitable extinguishing media

Water spray or fog.

Product does not burn, use fire control measures appropriate for the surrounding fire.

Do not use water jet to extinguish.

### 5.2 Specific hazards arising from the chemical

Fire exposure can cause the pressure to increase and the container may burst or explode. Use water to cool fire exposed containers.

### 5.3 Special protective equipment and precautions for fire fighters

Special protective equipment: Follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special precautions: Use firefighting procedures suitable for surrounding area. If safe to do so, remove containers from path of fire and prevent spillage from entering drains or water courses. May produce toxic fumes of metal oxides, poisonous fumes and corrosive fumes.

## 6 Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate unnecessary personnel. Ensure adequate air ventilation. Wear self-contained breathing apparatus when entering area, until safe.

*Note: Refer to recommendations in Section 8.*

### 6.2 Environmental precautions

If safe, try to stop release. Prevent from entering sewers or water courses, or anywhere accumulation can be dangerous.

### 6.3 Methods and materials for containment and cleaning up

If safe, try to stop release. Ensure adequate ventilation.

*Note/s: For further information, see Section 8. Refer to Section 13 for proper disposal.*

## 7 Handling and Storage

### 7.1 Precautions for safe handling

Containers, which contain or have contained flammable or explosive substances, must not be inerted with liquid carbon dioxide. Potential production of solid CO<sub>2</sub> particles must be ruled out. In order to rule out potential electrostatic discharge production, the system must be adequately grounded.

Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.

Do not smoke while handling product.

Avoid suck back of water, acid and alkalis.

Only experienced and properly instructed persons should handle gases under pressure.

Ensure the complete gas system was (or is regularly) checked for leaks before use.

The product must be handled in accordance with good industrial hygiene and safety procedures.

Consider pressure relief device(s) in gas installations.

Do not breathe gas.

Avoid release of product into work area.

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Be aware of the risk of formation of static electricity with the use of CO<sub>2</sub> extinguishers. Do not use them in places where a flammable atmosphere may be present.

Protect containers from physical damage; do not drag, roll, slide or drop.

Do not allow backfeed into the container.

When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.

Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.

If user experiences any difficulty operating valve discontinue use and contact supplier.

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 labels provided by the supplier for the identification of the content of the container.

Suck back of water into the container must be prevented.

Open valve slowly to avoid pressure shock.

## 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 50°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

## 8 Exposure controls/personal protection

### 8.1 Control parameters – exposure standards, biological monitoring

Use industrial hygiene monitoring equipment to ensure that exposure does not exceed the applicable national exposure limits.

Chemical Name	CAS No.	
Carbon Dioxide	(124-38-9)	STEL: 54000 mg/m <sup>3</sup> , 30000 ppm TWA: 9000 mg/m <sup>3</sup> , 5000 ppm

### 8.2 Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

Oxygen detectors should be used when asphyxiating gases may be released.

Systems under pressure should be regularly checked for leakages.






Ensure exposure is below occupational exposure limits (where available).

Consider the use of a work permit system e.g. for maintenance activities

*Note: See WTI Technical Note 7 – Health and Safety in Welding for further information / guidance.*

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### 8.3 Personal protective equipment (PPE)

<b>Eye Protection</b>		Wear safety glasses with side shields or goggles.
<b>Hand protection:</b>		Wear protective gloves. Suitable gloves can be recommended by the glove supplier.
<b>Protective Clothing</b>		Wear hand, head, and body protection that will help to prevent injury from using this product. At a minimum this includes welder's gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection, as well as dark substantial clothing. Wear dry gloves free of holes or split seams.
<b>Respiratory protection:</b>		Keep your head out of fumes. Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area. Use respirable fume respirator, or air-supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below exposure limits.
<b>Hygiene measures:</b>		Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

*Note: See WTI Technical Note 7 – Health and Safety in Welding for further information / guidance.*

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## 9 Physical and chemical properties

	Property	Product description
9.1	Appearance	Colourless gas
9.2	Odour	Odourless
9.3	Odour threshold	Odour threshold is subjective and is inadequate to warn of over exposure
9.4	pH	No further relevant information available
9.5	Melting point/freezing point	Sublimation -78.5 °C
9.6	Boiling point and boiling range	-56.6 °C
9.7	Flash point	Not applicable
9.8	Evaporation rate	High
9.9	Flammability	Not flammable
9.10	Upper/lower flammability or explosive limits	Not flammable
9.11	Vapour pressure	57.3 bar (at 20 °C)
9.12	Vapour density	Not applicable
9.13	Relative density (air = 1)	1.52
9.14	Solubility(ies)	2000 mg/l
9.15	Partition coefficient: (n-octanol/water)	No further relevant information available
9.16	Auto-ignition temperature	No further relevant information available
9.17	Decomposition temperature	No further relevant information available
9.18	Viscosity	No further relevant information available
9.19	Specific heat value	No further relevant information available
9.20	Particle size	No further relevant information available
9.21	Volatile organic compounds content	No further relevant information available
9.22	% volatile	No further relevant information available
9.23	Saturated vapour concentration	No further relevant information available
9.24	Release of invisible flammable vapours and gases	No further relevant information available
	<b>Additional parameters</b>	
9.25	Shape and aspect ratio	No further relevant information available
9.26	Crystallinity	No further relevant information available
9.27	Dustiness	No further relevant information available
9.28	Surface area	No further relevant information available
9.29	Degree of aggregation or agglomeration	No further relevant information available
9.30	Ionisation (redox potential)	No further relevant information available
9.31	Biodurability or biopersistence	No further relevant information available

## 10 Stability and Reactivity

### 10.1 Reactivity

The product is non-reactive under normal conditions of storage and transport.

### 10.2 Chemical stability

Stable under normal conditions of storage and transport.

### 10.3 Conditions to avoid

Avoid heat, sparks, open flames, hot surfaces.

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## 10.4 Incompatible materials and possible hazardous reactions

CO<sub>2</sub> dissolved in water, forms carbonic acid (H<sub>2</sub>CO<sub>3</sub>). This last one has a slightly acid reaction and it is corrosive for the carbon steel and some nonferrous materials.

## 10.5 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

## 11 Toxicological information

Acute Toxicity: no known toxicological effects from this product

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

Specific target organ toxicity (single exposure): Not classified.

Specific target organ toxicity (repeated exposure): Not classified.

Aspiration hazard: Not classified

### 11.1 Information on routes of exposure

**Inhaled:** Can have health problems for more than 8 hours breathing air containing more than 5000 ppm (0.5%) of CO<sub>2</sub>. If the concentration increases up to 15000 ppm (1.5%) have problems after just 10 minutes. At 2% of concentration, it is already experiencing a headache and loss of concentration. At higher levels, around 10%, the CO<sub>2</sub> can cause asphyxiation and paralysis of the respiratory centres, although the amount of oxygen in the air is still above 19% and then just for breathing. Breathe an even richer in carbon dioxide can cause immediate loss of consciousness and death. Some symptoms of asphyxiation may include: rapid breathing, fatigue, nausea, vomiting and cyanosis.

**Ingestion:** Not normally a hazard due to physical form of product. Considered an unlikely route of entry in commercial/industrial environments

**Skin Contact:** Skin contact does not normally present a hazard, though individuals may be found who react to substances usually regarded as inert. Molten material is capable of causing burns.

**Eye:** Fumes from welding/brazing operations may be irritating to the eyes.

**Chronic:** Principal routes of exposure include accidental contact with the molten metal and inhalation of fume arising as a consequence of the action of the flame on the rod / wire. Although fume generation rates are generally low, excessive heating of the material, well above its quoted melting point, may result in over-exposure.

### 11.2 Symptoms related to exposure

*Note: See Section 11.1*

### 11.3 Numerical measures of toxicity

No further information available

### 11.4 Immediate, delayed and chronic health effects from exposure

*Note: See Section 11.1*

### 11.5 Exposure Levels

*Note: See Section 11.1*

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## 11.6 Interactive effects

Note: See Section 11.1

## 11.7 Data limitations

No further information available.

## 12 Ecological information

Welding consumables and materials could degrade / weather into components originating from the consumables or from the materials used in the welding process. Avoid exposure to conditions that could lead to accumulation in soils or groundwater.

### 12.1 Ecotoxicity

No further relevant information available.

### 12.2 Persistence and degradability

No further relevant information available.

### 12.3 Bioaccumulative potential

No further relevant information available.

### 12.4 Mobility in soil

No further relevant information available.

### 12.5 Other adverse effects

No further information available.

## 13 Disposal considerations

### 13.1 Safe handling and disposal methods

Do not discharge into any place where its accumulation could be dangerous, but in atmosphere or well ventilated area. Gas cylinders are not refillable. Dispose according to applicable local and state government regulations.

### 13.2 Disposal of any contaminated packaging

Dispose according to applicable local and state government regulations.

### 13.3 Environmental regulations

Consult State Land Waste Management Authority for more information.

## 14 Transport information

No international regulations or restrictions are applicable.

### 14.1 UN number

UN 1013

### 14.2 Proper shipping name

CARBON DIOXIDE

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### 14.3 Transport hazard class(es)

2.2

### 14.4 Packing group

No further relevant information available

### 14.5 Environmental hazards

No further relevant information available

### 14.6 Special precautions during transport

No further relevant information available

### 14.7 Hazchem Code

2T

### 14.8 Additional Information

#### Sea Transport

EMS: F-C, S-V

Proper Shipping Name: CARBON DIOXIDE

#### Air Transport

Cargo Pkg Inst: 200  
Max Net Qty/Pkg: 150kg

Passenger Pkg Inst: 200  
Max Net Qty/Pkg: 75kg  
ERG Code: 2L

## 15 Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

Regulations of each country are applied to substances / mixtures.

Australian Inventory of Chemical Substances	
124-38-9	Carbon Dioxide

### 15.2 Poisons Schedule number

A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

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## 16 Other information

Training advice: Ensure that user is aware of the potential hazards and knows what to do in the event of an accident or an emergency.

### 16.1 Date of preparation or review

5<sup>th</sup> December, 2025

### 16.2 Key abbreviations or acronyms used

BEI - Biological Exposure Indices

GHS - Globally Harmonized System of classification and labelling of chemicals.

IARC - International Agency for Research on Cancer

NTP - National Toxicology Program

PPE - Personal Protection Equipment

SUSMP - Standard for the Uniform Scheduling of Medicines and Poisons

TLVs - Threshold Limit Value

WTIA – Welding Technology Institute of Australia

Dynaweld Industrial Supplies Pty Ltd requires that all customers read this safety data sheet carefully so as to be informed about the risks implied in the use of the product, and provide any person involved with a copy of the same and/or adequate training on the use of the product.

Whilst Dynaweld Industrial Supplies Pty Ltd has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Dynaweld Industrial Supplies accepts no liability for loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in the SDS,

**END OF SAFETY DATA SHEET**