

Helium Guide

# Where Does Helium Come From?

## What is liquid helium and what is it used for?

Liquid Helium is a chemical element of Helium that exists in a liquid form only at the extremely low temperature of -269°C.

Because Liquid Helium stores at -269°C, it is commonly used in the medical sector as a method to cool down magnets and other high tech machinery such as MRI's & NMR's.

## Explaining the helium recycle process.

The transportation of Liquid Helium from an ISO into a Supagas Dewar is a very meticulous process. Due to Liquid Helium's sensitivity to warmer temperatures, the majority of the Liquid Helium boils off in the transfer process. Instead of losing this Helium, Supagas captures this boil-off in a large balloon. This lower grade Helium is then recycled and compressed into smaller storage cylinders and becomes a part of our balloon gas supply. If this boil-off were not captured and recycled, a huge amount of Helium would be lost or wasted in the process. Some of the uses for balloon gas include; Helium balloons, weather balloons and more.

Supagas discourage the intentional release of all helium balloons. When using helium balloons please ensure they are tightly secured to a weight, popped and disposed of properly.

# Why Helium?

Using helium filled balloons is a great way to draw attention to your business while getting your name out in the community in an extremely cost effective manner. Business's that advertise with helium balloons are more likely to catch people's attention and stand out above the rest.

- Cost effective 
  Mobile branding
- Easy to implement Successfully proven marketing

## Supagas works with you!

We offer custom printed balloons specific to your business in edition to helium packages that include; a helium cylinder, balloons, regulator, clips and ties. Contact us for more information.







**DID YOU KNOW?** Helium is a non-flammable gas. The gas is inert (doesn't react to anything), it's non-toxic, colourless, odourless and tasteless.



# Helium (Balloon Gas)



# Helium Balloon Capacity

No. of 26 - 28cm (11") Balloons Filled

No. of 40cm (16") Balloons Filled

	Helium			Compressed Air			
SPECIFICATIONS	C 0.6m³ Cyl	D 1.2m³ Cyl	E 3.5m³ Cyl	G 9.1m³ Cyl	D 1.5m³ Cyl	E 3.5m³ Cyl	G 9.5m³ Cyl
Cylinder contents m³ (101.325 @15°C)	0.6	1.2	3.5	9.1	1.5	3.5	9.5
Water capacity (per cylinder) - L	4	10	23	50	10	23	50
Average Weight (full) kg	6	14	26	61.5	11.9	22.8	61.5
Average Weight (empty) kg	4.7	11.9	22.8	58	14	26	58
Cylinder Pressure Psi @ 15°C (approx.)	2,393	2,030	2,393	2,900	2,320	2,320	2,900
Cylinder Pressure kPa @ 15°C	16,500	14,000	16,500	20,000	16,000	16,000	20,000
Cylinder Colour	Brown				Pewter Body / Black Shoulder		
Outlet Connection (AS 2473)	Type 10			Type 60			
Dimensions (mm) Height	640	645	1,000	1,580	645	1,000	1,580
Dimensions (mm) Width	117	180	220	230	180	220	230

### **Balloon Capacity Chart (Helium)**

BALLOON SIZE	C 0.6m³ Cyl	D 1.2m³ Cyl	E 3.5m³ Cyl	G 9.1m³ Cyl
26 - 28 cm / 11"	50	100	300	800
40 cm / 16"	18	35	104	270
42.5 cm / 17"	13	26	76	200
60 cm / 24"	4	8	24	64
90 cm / 3ft	1	2	8	21

### Balloon Capacity Chart (Compressed Air)

BALLOON SIZE	D 1.5m³ Cyl	E 3.5m³ Cyl	G 9.5m³ Cyl	lli
26 - 28 cm / 11″	130	300	835	
40 cm / 16"	45	104	280	

Note: Overfilling balloons will alter these numbers.

The above specifications are approximate figures to guide you only. Compressed Air cylinders require separate regi

Å

## ACCESSORIES

Regulators for Latex Balloons



**Economy Regulator** 



**Deluxe Regulator** 

### Regulators for Foil & Latex Balloons



**Dual Tip Regulator** 



## Precision Plus Regulator





**Double Bracket** 



Tilt Nozzle



Balloons Pack of 100 x 28cm & 50 x 40cm (Clips and ties available in pack of 100)

# **Helium Inhalation**

## Helium inhalation is no laughing matter

Inhaling helium could put your life at risk! Evidence has proven that the inhalation of helium can be fatal, yet thousands of party goers inhale helium thinking it is very funny rather than life threatening. Inhaling helium can cut off the oxygen supply and can cause dizziness, unconsciousness, an embolism and asphyxia which can lead to death.

Health professional strongly urge Australian consumers to know the risks associated with helium inhalation and to always supervise children around helium use.



## First aid

- If the victim inhales the gas move them to fresh air. If unconscious administer artificial resuscitation if necessary. Treat for shock if required.
- Call for emergency medical treatment, 000.

## Cylinder safety

Keep cylinders upright and protect the valves from any physical damage. Secure cylinders in an upright position with a bracket or strap.

- Helium is to be used for inflation only
- If valve is damaged, do not attempt to operate.
- If valve does not operate by hand, return the cylinder to the supplier.



Keep balloons attached to weights and never release balloons into the air.



Dispose of balloons responsibly, pop them and put them in the bin.



Celebrate responsibly and encourage others to do the same.



\* Due to the helium being under extremely high pressure, Supagas encourages the use of safety glasses during regulator fitment and removal.

## **Environmental policy**

We are proud and active members of the Pro Environment Balloon Alliance (PEBA). As members we are committed to the responsible use and disposal of balloons. PEBA is Australia's largest balloon industry association formed in July 2017 to be an advocacy body to promote positive changes in balloon industry practices, community education, corporate governance and to be a consultative body for legislative policy relating to balloons.

We are committed to self-regulation and driving proactive, environmentally responsible change within the industry. PEBA members are industry professionals who DO NOT support, condone or facilitate the organised release of balloons.

PEBA also supports us to educate our clients, venue managers and the public, by all possible means in the correct disposal of balloons through their "Don't Let it Go, Pin it & Bin it!" campaigns.

## Latex balloons

Latex balloons are not plastic. They are a plant-based product, made from natural rubber harvested from rubber tree plantations which are a renewable resource.

Leading manufacturers harvest their latex from sustainable Rainforest Alliance Certified and Forest Stewardship Council Plantations.

The Rainforest Alliance are an international, non-profit organisation working to build strong forests, healthy agricultural landscapes, thriving communities and fight climate change.

As latex balloons are made from natural rubber, they do breakdown. However, when balloons become litter they don't degrade sufficiently or quickly enough to prevent possible risk or harm to wildlife.

Banning the deliberate release of balloons and promoting the responsible use and disposal is vital for effective environmentally responsible change.

By choosing to use Balloon Professionals and Artists who use latex balloons as their medium of expression, you are making an environmentally and economically responsible choice.

## Our commitment to the community

Although statistically balloons make up a very small proportion of marine debris, the industry is committed to reducing any potential impact of balloon litter on marine life. PEBA is working with all stakeholders including environmental groups, federal, state and local governments as well as corporate businesses to find a balance between effective environmental management and supporting industry.

Our art form adds fun and happiness to the community and we look forward to helping you enjoy balloons at your events and celebrations.

For more information please visit www.peba.com.au

Peba. (2019). PEBA | Fact Sheet - Balloons & The Environment. [online] Available at: https://www.peba.com.au/ balloons-and-the-environment [Accessed 19 Mar. 2019].











# Helium Guide

#### What is helium used for?

There are several different grades of Helium, however balloon grade helium is greater than 99% and is used for inflating balloons.

# What is the difference between helium gas and balloon gas?

Helium gas that Supagas provides is greater than 99% helium purity versus balloon gas that can contain up to 5% nitrogen or oxygen diluting the product from 99% to 95% purity.

#### What is the difference between latex and foil balloons?

A latex balloon is porous which allows it to expand and allows helium to slowly seep out affecting float time. A foil balloon on the other hand, is not porous which allows for a longer float time and features a self-sealing valve, which means the balloon can be reinflated 2 or 3 times before the valve becomes unreliable.

#### How long will balloons stay afloat?

Latex - Good quality latex balloons will last approximately 8 - 12 hours however extreme temperatures will reduce float time.

Foil - Foil balloons will last an estimated 7 - 10 days.

#### Is helium gas safe?

Helium is a non-flammable gas. The gas is inert (doesn't react to anything), it's non-toxic, colourless, odourless and tasteless. We always recommend using helium gas in a well ventilated area to reduce the danger of asphyxiation. Supervision amongst children is encouraged at all times.

#### Is it important which brand of balloons are used?

The recommended number of balloons obtained from any gas cylinder is based on using good quality balloons 26 - 28cm in diameter. If the balloons are larger than this, it will reduce the number of balloons obtained from each cylinder. We only recommend biodegradable environmentally friendly balloons. Ask your sales representative for assistance if you are still unsure.

#### Transportation and storage of cylinder

Transport securely and upright without regulator attached. (1 cylinder per enclosed vehicle) Store securely and upright in a dry safe place. (When cylinder is not in use turn cylinder valve to closed and relieve the pressure on the regulator by tilting the nozzle up or down). Is the party trick of inhaling helium (Donald Duck effect) safe?

No. It is very dangerous and must be discouraged at all times.

#### Environmental policy

Supagas strongly discourages the intentional release of all balloons into the air when filled with helium or compressed air due to the protection of our environment and wildlife.

Please ensure they are tightly secured to a weight, popped and disposed of properly. Please join us in the protection of our environment.



## SERVICING AUSTRALIA WIDE