



**SUPAGAS**

YES WE CAN!



# SupaMap Guide

# About Modified Atmosphere Packaging (MAP)

Modified Atmosphere Packaging, also known as MAP, is all about the application of gas during the packaging process to help maintain the freshness and quality of food. Various foods are packaged using MAP from fruits, vegetables to meats and seafoods. MAP gases are at a food grade level, supporting the food packaging process to preserve food quality and extending the shelf life of packaged goods.

In food processing and technology industries, the ability to preserve the overall quality of food for consumption is important. Preventing food items from spoiling in the environment, for example a change in temperature can have an impact and result in recalls. MAP provides businesses the application to keep the freshness during the packaging of food and beverages. Effectively packaging products to maintain food safety for consumers and providing a longer shelf life is the goal.



Supagas' extensive experience and knowledge in food gas applications and processing, including packaging is focused direct to the customer. This allows the food packaging, original equipment manufacturers (OEMs) to focus on their scope of work, leaving the total MAP gas supply system solution in the hands of Supagas.

Supagas' state-of-the-art facilities, NATA Accredited Laboratory allows us to offer multiple gas types and gas products, as well as run specialised laboratories to mix and test specialty gas. This helps us to better service our customers' needs and requirements.



Supagas Laboratory

Accredited for compliance with ISO/IEC 17025

Accredited for compliance with ISO Guide 34, Reference Gas Mixtures Prepared to ISO 6142

NATA Accreditation number: 18955

## The Chemistry Behind Packaging

A controlled process and atmosphere eliminating the growth of potentially harmful factors that could spoil products such as the growth of micro-organisms as a result of poor hygiene practices will negatively impact the process and goods.

The use of methods such as the application of MAP will facilitate the need to maintain food quality and shelf life whilst aiming to retain the products taste and appearance. MAP gases are a mixture of gases consisting of oxygen (O<sub>2</sub>), nitrogen (N<sub>2</sub>) and carbon dioxide (CO<sub>2</sub>). The specialty mixture of oxygen, nitrogen and carbon dioxide gases are determined by the foods' properties to help develop the most appropriate gas mixture to create modified atmospheres for food packaging purposes.

The reason oxygen is used is to assist with the colouring of products such as fresh meat. Nitrogen can be used to replace oxygen to help reduce the growth of bacteria, in addition, developing mixtures beneficial for goods such as meat (i.e. raw or cooked). The nitrogen can assist where carbon dioxide may be in excess that can result in the packaging to collapse and therefore, the package will not remain sealed. It is important to ensure the percentage of gas types such as oxygen, nitrogen and carbon dioxide are controlled to develop bacterial resistant mixtures, so products freshness is maintained.

# SupaMap Gas Range

The SupaMap Specialty Gas product range at Supagas has been developed for use across many areas of food applications. The colourless and odourless gases are applied to assist with improving food quality and freshness available in cylinder, pack and bulk form. For some businesses when cylinders and packs are no longer able to sufficiently supply gas for production, bulk is the pathway for large customers where mixing can occur onsite to facilitate operations.

SupaMap Product	Cylinder Size	Pack Size	Application
SupaMap 20	G	12	Used as an atmosphere above packaged red meats to maintain colour, freshness, as well as gas flushing and industrial application use.
SupaMap 30	G	12	Developed to assist in extending shelf life and improve food quality such as ready meals, meats, seafood, poultry, convenience food and cooked and dressed vegetable products.
SupaMap 40	G	12	Focuses on helping to improve the quality of food products such as raw oily fish, seafood and combination products.
SupaMap 55	G	12	Used in industries to help extend the shelf life such as fresh pasta products and bakery products.

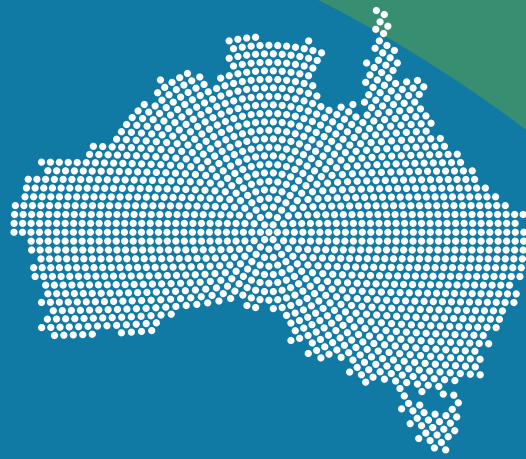
Consumers' taste and preferences are constantly changing, the convenience, ease and demand of foods in the market needs to be considered. Maintaining high food standards of both quality and safety for ease of consumption and storage is important for a business. The prevention of spoilage or the degrading of products during food processing is crucial for food processors and producers.



Available in  
Pack and Bulk



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