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Report

Introduction to Macau and its Food Hygiene Regulations

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I. History of Macau

Macau used to be a small fishing village called Hao Jing or Hao Jing Ao, because a port was called "Ao" at that time. Macau and its vicinity are rich in oysters, the inner wall of the oyster shell is bright as a mirror, so translated Macau means oyster mirror. The current name of Macau comes from a fairy tale about a Chinese goddess, known as Niangma, who was revered by local fishermen in the past. It is said that a fishing boat was sailing on a fine and calm day when it was suddenly caught in a strong wind and thunderstorm, and the fishermen were in danger. At the critical moment, a young girl stood up and ordered the storm to stop. The wind stopped, the sea became calm, and the fishing boat arrived safely at Sea Mirror Port. After going ashore, the girl walked toward the A-MA Pavilion Mountain, when suddenly with a halo shining the girl turned into a wisp of smoke. Later, people built a temple to the mother where she landed.

In the mid-16th century, when the first group of Portuguese arrived in Macau, they asked the residents about the name of the place. The residents mistakenly thought it meant a temple and answered "Ma Ge". The Portuguese translated this into "MACAU", which became the origin of the Portuguese name of MACAU. In the following four hundred years, eastern and western cultures blended with each other here, leaving behind a lot of historical and cultural heritage, making Macau a unique city. Since 20 December 1999, Macau has been a special Administrative Region of the People's Republic of China. Under the guidance of the policy of "one country, two systems", Macau exercises a high degree of autonomy and enjoys executive, legislative,

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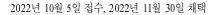






Figure 1. Macau Mazu Pavilion and Macau history picture Source: Baidu Network and Macau Tourism Bureau (2022)

independent judicial and final adjudication. The social and economic characteristics of Macau will be preserved and continued under this system <Figure 1>.

II. Overview of Macau

Macau, on the southeast coast of China, is in the pearl river delta at east longitude 113°35', north latitude 22°14'. It is surrounded by sea on three sides and has the climate characteristics of a high temperature and rainy, subtropical Marine monsoon. It borders Zhuhai in the Guangdong province on the west side of the Pearl River estuary and echoes Hong Kong at a distance. It is the "gateway" city of the Guangdong-Hong Kong-Macau Greater Bay Area and an important fulcrum of the "Belt and Road" initiative.

Macau has a small area and is one of the most densely populated places in the world. It also has a relatively high per

capita income in the Asian context. Macau has a population of about 677,300, most of whom live on the Macau Peninsula, with smaller populations on two outlying islands. The majority of Macau residents are Chinese, accounting for about 90% of the total population, while the rest are Portuguese, Filipino, Vietnamese and other nationalities. Chinese and Portuguese are the current official languages. Cantonese is widely used in daily communication, but Mandarin is also understood by many residents. English is also popular in Macau (#17?, 2022). Under the background of multi-cultural environment, it has laid a solid foundation for the development of its cultural tourism products and industries, and also brought unprecedented development opportunities.

III. The tourism industry of Macau

Tourism and gambling are the pillar industries of Macau and play an important role in the moderately diversified development of Macau's economy. For hundreds of years, Macau has been a place where Chinese and Western cultures have blended and coexisted. Its unique blend of Chinese and Western cultures, gaming culture and the Historic Centre of Macau (UNESCO, 2005), a World heritage site composed of 22 historical buildings, squares and streets, are the symbols of the city's character. Macau is rich in tourism resources and has the highest density of United Nations Educational, Scientific and Cultural Organization World Heritage sites in the world (Wu & Li, 2014). It attracts millions of tourists every year. According to the Macau Statistics Bureau in 2019, before the outbreak of the COVID-19 pandemic, there were 39.406 million tourists (DSEC, 2022).

Macau is the only legal casino gambling jurisdiction in China (Gu*, 2004). The rapid development of Macau's gambling industry has driven the super high-speed growth of the entire Macau economy. Since the government opened the industry in 2002, as the main pillar of Macau's development, the industry has been growing rapidly (Vong & Wong, 2013). In 2019, Macau's gambling industry accounted for about 50% of GDP and 22% of employment. The Macau government also attaches great importance to the diversified development of tourism. In recent years, it has promoted the strategy of "experiencing Macau Unlimited style" and actively created various experience elements, such as developing new routes for cultural heritage tourism and holding special activities such as grand prix racing, food festival and fireworks Festivals. This provides a new direction for Macau's transformation



Figure 2. The 68th Macau Grand Prix (Nov. 2021) Source: Baidu Pictures (2021)



Figure 3. The 21st Macau Food Festival in 2021 Source: Baidu Pictures (2021)

from "gambling city" to "historical and cultural city" and "world leisure center".

Macau has made many achievements in this strong development of the tourism industry. It won the prestigious TTG China Travel Awards 2021 as "Best Tourism City in China". Standing out as a tourism destination that exceeds expectations (Mgtoweixin, 2021), Macau was awarded the title of "Creative City of Cuisine" by UNESCO (UNESCO, 2017), and won the "Best Tourism Promotion" Award at the 18th Busan International Tourism Fair in South Korea, among other international honors. However, Macau's casino tourism industry has been in a dominant position for a long time, and the solidified image of casinos has affected the experience motivation of some non-gambling tourists (曾韬 & 李玺, 2019) <Figures 2, 3>.

Looking at the per capita consumption of major inbound tourists in Macau in 2021 <Figure 4>, gambling consumption and exhibition consumption rank first. The gambling industry is still the main pillar of Macau's tourism economic income,

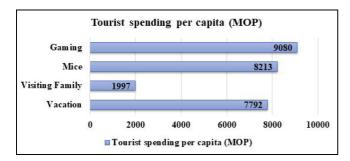


Figure 4. Per capita consumption of major inbound tourists in Macau in 2021 (MOP8=US\$1)

Source: Macau Statistics and Census Service (2022)

and there is no room for wavering on this. However, for sustainable development, integrated resorts have also gradually expanded their exhibition business. With the strong support of Macau's government, the convention and exhibition industry has developed rapidly, with large exhibition venues such as the Venice Convention Centre and Galaxy Resort International Convention Centre being developed. As for the consumption structure of tourists in Macau <Figure 5>,

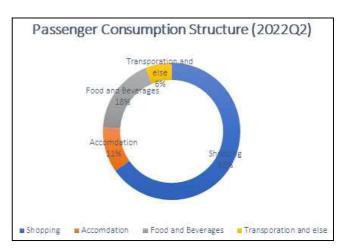


Figure 5. Main structure of the passenger consumption in Macau

Source: Macau Statistics and Census Service (2022)

tourists mainly focus on shopping, accounting for up to 65%, followed by catering, at about 18%. In addition to shopping, food tourism has also brought a lot of profits to Macau <Figures 4, 5>.

Table 1. Relevant rules on hygienic food in Macau

Items	Standards
Food Additives	Administrative Regulation No. 30/2017: Standards for Use of Food Coloring in Food
	Administrative Regulation No. 12/2018: Standards for Use of Sweeteners in Food
	→ Macau Food Safety Standard Database
	Administrative Regulation No. 7/2019: Standards for Use of Preservatives and Antioxidants in Food
	Supplementary Document: Q&A on Standards for the Use of Food Additives
	→ Macau Food Safety Standard Database
	Note: Food Classification refers to 'Guidelines on Food Category System for Food Additives'
Prohibited Substances in Food	Administrative Regulation No. 6/2014: List of Prohibited Substances for Use in Food
	Administrative Regulation No. 3/2016: Amendment to Administrative Regulation No. 6/2014 'List of Prohibited Substances for Use in Food'
Residues in Food	Administrative Regulation No. 13/2013: Maximum Residue Limits of Veterinary Drugs in Food
	Administrative Regulation no. 11/2020: Maximum Residue Limits of Pesticides in Foodstuffs
	Supplementary Document: Guidelines for Classification of Food Products in Relation to "Maximum Limits of Pesticide Residues in Food"
	Administrative Regulation No. 16/2014: Maximum Limits of Radionuclides in Food
Contaminants and Toxins in Food	Administrative Regulation No. 13/2016: Maximum Limits of Mycotoxins in Food
	Administrative Regulation No. 23/2018: Maximum Limits of Heavy Metal Contaminants in Food
	Supplementary Document: Explanation and Examples of Some Food Categories in Relation to "Maximum Limits of Heavy Metal Contaminants in Food"
Microorganisms in Food	Administrative Regulation No. 16/2015: Limits of Pathogenic Microorganisms in Powdered Infant Formula
	Administrative Regulation No. 2/2016: Limits of Pathogenic Microorganisms in Dairy Products
	Microbiological Guidelines for Ready-to-eat Food
Nutritional Composition of Food Products	Administrative Regulation No. 28/2016: Requirements for Nutritional Ingredients of Infant Formula

Source: Food Safety Information Center of the Municipal Council of Macau (2022)



Figure 6. Main measures for hygiene food in Macau Source: The author (2022).

IV. Formulation of relevant laws and regulations on food hygiene and safety in Macau

Macau food safety law, refers to the codex alimentarius commission (CAC) of relevant standards as its core, giving international recognition of its scientific basis. At the same time acknowledging the UN food and agriculture organization (FAO) and the world health organization (WHO) joint expert committee on food additives (JECFA) in food related hazards risk assessment, in formulating food safety standards for Macau residents.

Since the promulgation of the Food Safety Law, the Macau SAR Government has issued a series of supplementary regulations on food safety standards, providing a detailed legal basis for food production and supervision. Since 2013, the SAR government has issued a large number of regulations (roughly divided into five categories, as shown in Table 1), covering almost all food safety standards. The SAR government has also formulated strict and detailed punishment measures, ranging from fines to criminal liability. For example, the law stipulates that if the food produced or marketed does not meet the safety standards, even if it does not cause health problems, all the people involved in its production and marketing will face heavy fines. If it causes damage to the health of consumers, it constitutes "the crime of producing or selling harmful food" and carries a maximum sentence of five years in prison (冯学知, 2016) <Table 1>.

V. The relevant measures to attach importance to hygienic food in Macau

In 2013, the Macau SAR government abolished the Food safety Coordinating Group and set up the Center for Food Safety to supervise and manage food safety. After the establishment of the Center for Food Safety, through the development of various types of food survey sampling plan and regular inspection, the government can reduce the potential risk of food accidents. In June 2022, the macau government launched "world food safety day" and a series of

Table 2. Guide manual on food safety in Macau

Classification	Trade guidelines
Basic Management	Hygiene Guidelines on Imported Food Hygiene Guidelines on Food Purchasing Guidelines on the Use of Disposable Plastic Food Containers Guidelines on Keeping Records Relating to Food Guidelines on Proper Hand Washing for Food Handlers Food Recall Guidelines Hygiene Guidelines on Food Transportation Guidelines on Defrosting Food Guidelines on Cooling and Reheating Food Hygiene Guidelines on Time and Temperature Control Prevent Human Infection with H7N9 Avian Influenza-Guideline for Handlers of Poultry and Food Hygiene Guidelines on Transportation of Meat
Food Categories	Hygiene Guidelines on Production of On-site Prepared Ready-to-drink Beverages Hygiene Guidelines on Preparation of Desserts Hygiene Guidelines on Production of Bakery Products Hygiene Guidelines on Preparation and Sale of Siu-mei and Lo-mei Hygiene Guidelines on Supply and Sale of Ice-cream
Seasonal Food	Hygiene Guidelines on Preparation and Sale of Poon Choi
Group Catering and Dining	Operational Guidelines on Retention of Food Samples
Technical Parameters	Microbiological Guidelines for Ready-to-eat Food Technical Guidelines on Administrative Regulation No. 28/2016 "Nutritional Requirements for Infant Formula"

Source: Food Safety Information Center of the Municipal Council of Macau (2022)

related activities, uploading the Australian food security standard of science and education related information, such as film animation, popular science articles, and promoting the industry and residents of food standards and science of cognition, to push for universal care similar to the food safety standards in Australia (Department, 2022).

In the face of the world food security situation, the development of food production technology changes with each passing day and the city administration needs to keep pace with the times. According to the local food industry, the development trend of the combination of local special research and the status of the food industry, updating the regulation of food additives, innovation related detection technology, and strengthening the food safety supervision level is important. In addition to efficient government supervision and sound laws and regulations, extensive social participation is also a key part of Macau's food safety supervision mechanism.

The Macau SAR Government has enacted a law on consumer protection and established the Consumer Council as a quasi-governmental department to serve as a bridge between consumers and the government and facilitate consumer participation in food safety supervision. Due to the high-level set by legislation, the Consumer Council is able to coordinate smoothly the competent government departments and jointly enforce the law and can submit a report directly to the Chief Executive every year to reflect the implementation of its policies. With the Consumer Council as an important communication pipeline, consumers can report food safety problems and regulatory gaps to government departments in a timely manner, so that most problems can be dealt with at an early stage <Figure 6>.

Food safety information can be retrieved from the Municipal Administration of Macau Administrative Government, which has a very detailed and diverse Food safety guide for people's reference and learning, presented to the public in the form of electronic books online, with vivid content and a complete process <Table 2>.

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