

# **The Second Hong Kong Total Diet Study: Methodology**

December 2024  
Centre for Food Safety  
Food and Environmental Hygiene Department  
The Government of the Hong Kong Special Administrative Region

This is a publication of the Centre for Food Safety of the Food and Environmental Hygiene Department (FEHD) of the Government of the Hong Kong Special Administrative Region. Under no circumstances should the research data contained herein be reproduced, reviewed, or abstracted in part or in whole, or in conjunction with other publications or research work unless a written permission is obtained from the Centre for Food Safety. Acknowledgement is required if other parts of this publication are used.

Correspondence:

Risk Assessment Section

Centre for Food Safety

Food and Environmental Hygiene Department

43/F, Queensway Government Offices,

66 Queensway, Hong Kong.

Email: [enquiries@fehd.gov.hk](mailto:enquiries@fehd.gov.hk)

## Contents

<b>Abstract</b>	1
<b>Introduction</b>	2
<b>Objective of the 2<sup>nd</sup> HKTDS</b>	3
<b>Methodology</b>	3
(i) Selection of chemical substances	4
(ii) Development of a TDS food list	4
(iii) Food sampling	6
(iv) Sample preparation	7
(v) Laboratory analysis	8
(vi) Dietary exposure assessment	10
(vii) Publication of results	13
<b>Limitations</b>	13
<b>Summary</b>	14
<b>References</b>	15
<b>Annexes</b>	17
Annex 1: Chemical substances covered in the 2 <sup>nd</sup> HKTDS	18
Annex 2: TDS food list of the 2 <sup>nd</sup> HKTDS	19
Annex 3: Sample preparation instructions	27

## **ABSTRACT**

The Centre for Food Safety (CFS) is conducting the Second Hong Kong Total Diet Study (2<sup>nd</sup> HKTDS) with the objective of estimating the latest dietary exposure of the Hong Kong population and various population subgroups to a range of chemical substances of potential food safety concern, and in turn assessing the associated health risks. The methodology of the 2<sup>nd</sup> HKTDS is elaborated in this report.

The 2<sup>nd</sup> HKTDS is comprised of seven components, namely (i) selection of chemical substances, (ii) development of a TDS food list, (iii) food sampling, (iv) sample preparation, (v) laboratory analysis, (vi) dietary exposure assessment, and (vii) publication of results. The food sampling and sample preparation of a total of 187 TDS food items were carried out on two sampling occasions between February 2023 and January 2024.

Over 130 chemical substances covering food additives, metallic contaminants, mycotoxins, persistent organic pollutants (POPs), pesticide residues, and process contaminant, etc. are subject to analytical testing in the respective composite samples. The laboratory analysis is conducted by the Food Research Laboratory (FRL) of the CFS.

Dietary exposure to individual substances for the average and high consumers of the population, as well as various population subgroups, are estimated and compared with the relevant Health-based Guidance Values (HBGVs) or other toxicological reference values as appropriate with a view to assessing their associated health risks. Reports on the dietary exposure assessment of individual groups of chemical substances will be published separately in due course.

# The Second Hong Kong Total Diet Study:

## Methodology

---

---

### Introduction

Total Diet Study (TDS) is a tool for estimating population chronic dietary exposure to a wide range of chemicals across the whole diet within one study, which is an internationally well-recognised approach for quantifying the presence of chemical substances in the food supply and for estimating dietary exposure. The Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) have been promoting and supporting the TDS approach since the 1970's.

2. TDS is different from traditional monitoring and surveillance programmes in the way that TDS takes into account sample preparation to “as consumed” status when assessing the levels of chemicals present in foods, and it involves the pooling of individual “as consumed” food samples into composite samples before laboratory analysis. While TDS focuses on assessing background population dietary exposure to chemicals within the context of the whole diet, traditional monitoring and surveillance programmes usually capture contaminated individual food items in their form as sold. As such, TDS and traditional monitoring and surveillance programmes can complement each other in terms of food safety by allowing the identification of the relative importance of individual sources of chemical substances through coverage of the whole diet. On the other hand, when TDS is repeated at regular intervals, it allows the

identification of temporal trends in dietary exposure to chemicals, as well as the evaluation of the effectiveness of risk management measures undertaken.<sup>1</sup>

3. The Centre for Food Safety (CFS) conducted the First Hong Kong Total Diet Study (1<sup>st</sup> HKTDS) in 2010-2014.<sup>2</sup> With the availability of a new set of food consumption data on the adult population as obtained from the Second Population-based Food Consumption Survey (2<sup>nd</sup> FCS) (2018-2020), the CFS has taken the opportunity to conduct the Second Hong Kong Total Diet Study (2<sup>nd</sup> HKTDS).

4. The methodology of the 2<sup>nd</sup> HKTDS is described in this report while the reports on dietary exposure assessment of individual groups of chemical substances will be published separately.

### **Objective of the 2<sup>nd</sup> HKTDS**

5. The 2<sup>nd</sup> HKTDS aims to estimate the latest dietary exposure of the Hong Kong population and various population subgroups to a range of chemical substances of potential food safety concern, and in turn assess the associated health risks.

### **Methodology**

6. Similar to the 1<sup>st</sup> HKTDS, the 2<sup>nd</sup> HKTDS is comprised of seven components, namely (i) selection of chemical substances, (ii) development of a TDS food list, (iii) food sampling, (iv) sample preparation, (v) laboratory analysis, (vi) dietary exposure assessment, and (vii) publication of results.

(i) Selection of chemical substances

7. A set of selection criteria, including recommendations from international workshops on TDS organised by WHO,<sup>3</sup> experience of TDS conducted in other countries/regions, results of the 1<sup>st</sup> HKTDS and risk assessment studies conducted by the CFS, had been taken into account when considering the chemical substances of potential food safety concern for inclusion in the 2<sup>nd</sup> HKTDS. The 2<sup>nd</sup> HKTDS focuses mainly on contaminants and pesticide residues in food, for the first time, covers some food additives of local concern. A total of over 130 chemical substances were selected for inclusion in the 2<sup>nd</sup> HKTDS, grouped under the following categories: food additives, metallic contaminants, mycotoxins, persistent organic pollutants (POPs), pesticide residues, process contaminant, and other substances. More details of the selected chemical substances are shown in Annex 1.

8. The total number of chemical substances selected for inclusion in the 2<sup>nd</sup> HKTDS is similar to the 1<sup>st</sup> HKTDS. Nevertheless, a number of new chemical substances have been included in the 2<sup>nd</sup> HKTDS (e.g. neonicotinoids and polar pesticides under the category of pesticide residues, sulphites and nitrate/nitrite under the category of food additives).

(ii) Development of a TDS food list

9. The TDS food list was developed with a view to selecting a list of representative foods from each major food group to represent the majority of foods consumed by the population, based on the food consumption data of the adult population captured by the 2<sup>nd</sup> FCS (2018-2020). In the 2<sup>nd</sup> FCS, 3752 respondents aged 18 or above were interviewed using two non-consecutive 24-

hour dietary recalls. The survey respondents reportedly consumed over 1500 food items over two specified 24-hour periods, and the weighted average total intake was 1.15 kg of solid food and 1.74 L of liquid food per day.<sup>4</sup> With a view to selecting representative foods from the typical local diet covering all major food groups, the consumed food items were first aggregated according to similarity. With reference to the aggregated food consumption data, representative foods were then selected from each major food group for designation as TDS food items in the TDS food list.

10. To develop the TDS food list that covers over 90% of the total daily intake of the population, screening criteria had been adopted to select commonly consumed food items. These criteria included food items consumed at over 1 g per person per day and / or food items consumed by over 5% of the population. Besides, additional food items considered particularly important for dietary exposure estimation (e.g. food items reported to have high levels of certain chemical substance) were selected.

11. A total of 187 food items, categorised under 15 food groups, were selected and designated as TDS food items for the 2<sup>nd</sup> HKTDS (**Annex 2**). The TDS food list covered 91% of the total daily food intake (by weight) of the Hong Kong adult population. As compared with the 1<sup>st</sup> HKTDS, the total number of TDS food items increased from 150 items to 187 items, resulting in a wider coverage of the total food intake of the adult population. On the other hand, it is worth noting that the CFS completed the Food Consumption Survey in the Younger Population (FCSYP) (2021-2022) which covered the younger population aged 6-17 in December 2023.<sup>5</sup> Thus, it is possible to estimate the dietary exposure of the younger population in the second round of TDS. The



TDS food list for the 2<sup>nd</sup> HKTDS, which covered 89% of the total daily food intake (by weight) of the younger population, is considered acceptable for dietary exposure estimation for the younger population.

(iii) Food sampling

12. Food sampling was conducted on two sampling occasions within one year with a view to addressing possible seasonal variations in the level of specific chemical substances present in foods or seasonal variations in the food supply. In addition, food samples were collected from retail premises across different districts in Hong Kong. Nevertheless, having considered that the levels of chemical substances in prepackaged foods are unlikely to be affected by sampling location, the prepackaged food samples might not be evenly sampled from different districts. The first sampling occasion took place from February to August 2023, whilst the second sampling occasion took place from August 2023 to January 2024. The CFS commissioned the Food Research Centre of The Chinese University of Hong Kong to carry out the food sampling and the subsequent sample preparation work of the 2<sup>nd</sup> HKTDS.

13. During the planning phase of the 2<sup>nd</sup> HKTDS, a supplementary survey had been conducted among members of the CFS's Consumer Liaison Group to collect information on consumers' shopping habits and shopping locations in order to prepare a representative sampling plan. In addition, food import data of the Hong Kong Merchandise Trade Statistics had been referred to when considering the allocation of individual samples of TDS food items based on their country of origin. Furthermore, small-scaled market research which covered major supermarket chains and online sales platforms had been

conducted during the planning stage of the 2<sup>nd</sup> HKTDS as well as during the actual sampling period, with a view to identifying commonly available brands and varieties of TDS food items, especially those in prepackaged form.

14. On each of the two sampling occasions, six individual samples for each of the 187 TDS food items were collected from various retail premises (including supermarkets, wet markets, grocery shops and restaurants, etc.) as well as online sales platforms, where appropriate. Thus, a total of 2244 individual samples were collected in the 2<sup>nd</sup> HKTDS, as compared with 1800 individual samples in the 1<sup>st</sup> HKTDS. The food or combination of foods sampled for each TDS food item in the 2<sup>nd</sup> HKTDS are shown in **Annex 2**.

(iv) Sample preparation

15. All collected food samples were prepared individually to the status in which the food could be normally consumed (i.e. “as consumed” status) in a manner most representative of and consistent with the cultural habits in Hong Kong. Preparation of the TDS food items ranged from simple rinsing, peeling, chopping to cooking. The sample preparation procedures had been developed with a view to mirroring reductions or increases in the levels of chemical substances or the formation of new chemical substances that would occur during kitchen preparation as far as practicable.

16. The cooking methods of the consumed food items as captured by the 2<sup>nd</sup> FCS had been taken into account when determining the methods used for preparing the respective TDS food items. In addition, during the planning stage of the 2<sup>nd</sup> HKTDS, a supplementary survey had been conducted among members of the CFS’s Consumer Liaison Group with a view to collecting information on

the types of kitchen utensils and cookware commonly used in the local households. The findings of this supplementary survey had been reflected in the choice of kitchen utensils and cookware used for preparing the TDS food items in this study. During the preparation of TDS food items, salt was used according to the quantity indicated in the recipe database compiled by the CFS. On the other hand, in the 2<sup>nd</sup> HKTDS, cooking oil was not added for preparing food samples, whereas distilled water, instead of tap water, was used to prepare TDS food items, in accordance with the same practice as adopted in the 1<sup>st</sup> HKTDS.\*

17. The prepared “as consumed” food samples were homogenised and kept individually prior to pooling. Six individually prepared samples of the same TDS food item were pooled in equal weight proportion and homogenised to form a “composite sample”. To this end, the whole study included 374 composite samples for laboratory analysis. The sample preparation instructions for each of the TDS food items are shown in **Annex 3**.

(v) Laboratory analysis

18. Laboratory analysis of chemical substances is conducted by the Food Research Laboratory (FRL) of the CFS. Various analytical methods are deployed as appropriate for the determination of chemical substances in the composite samples. The limits of detection (LODs) have been set as low as technically achievable. A comprehensive quality assurance / quality control programme has been implemented to assure the quality of the analysis.

---

\* Cooking oil and tap water were considered as separate TDS food items included for laboratory analysis of chemical substances and the subsequent dietary exposure estimation.

19. Each of the composite samples is analysed individually. The chemical substances to be analysed are categorised into different test groups in accordance with the analytical methods deployed. In addition, with a view to ensuring laboratory resources are effectively utilised, the chemical substances to be analysed in the TDS food items would take into account their occurrence in the respective food items; similar practice is adopted in many other places conducting TDS, such as Australia, New Zealand, France, Germany and the United States. In other words, not all food items in the TDS food list of the 2<sup>nd</sup> HKTDS are tested for the entire list of selected chemical substances. For example, mycotoxins are not widely distributed in all types of food and thus only those food types (mainly cereal, legumes, nuts and seeds and their products, milk and dairy products, dried fruits and spices) which have been reported to contain mycotoxins are tested for mycotoxins.

20. The analytical work is being performed in phases from year 2023 to 2026 with reference to the chemical properties and stability of the chemical substances. Chemical substances which might decompose or interconvert gradually over time (e.g. nitrate and nitrite, sulphites and certain pesticide residues) have been analysed shortly after sample preparation whereas the other more stable substances are analysed at a later stage. The composite samples are kept frozen at or below -18°C prior to analysis.

21. The list of TDS food items being tested for individual substances, as well as the laboratory analytical methods being deployed, will be elaborated in the respective dietary exposure assessment reports of individual groups of chemical substances.

(vi) Dietary exposure assessment

22. A refined deterministic approach is adopted to estimate dietary exposure, in which individual food consumption data (as empirical distribution) are multiplied by the mean concentration of the chemical substances analysed (as point estimate). The resulting dietary exposure estimates of the chemical substances are compared against their respective health-based guidance values (HBGVs) or other toxicological reference values as appropriate, and the associated health risks assessed. In addition, major food contributors to the dietary exposure are identified.

*Preparation of food consumption data*

23. The food consumption data captured at the individual level is linked to the analytical data of TDS food items through the means of food mapping, to enhance the coverage of food intake in the exposure estimation.

24. Each of the TDS food items represents certain similar foods, and the concentrations of chemical substances detected in each of the TDS food items are applied to all of the foods that the TDS food item represents. Certain food items, even of low consumption, have been designated as TDS food items to achieve a more comprehensive food mapping process. For those mixed dishes captured by the food consumption surveys which cannot be mapped directly to any of the TDS food items, these mixed dishes will first be disaggregated into their respective ingredients through the use of a recipe database and the respective disaggregated ingredients will then be mapped to the applicable TDS food items. Conversion factors are assigned, as appropriate, to adjust the

possible differences (e.g. moisture contents, proportion in recipe) between the TDS food items and the corresponding foods to be mapped.

25. To better reflect the exposure from the whole diet, a generic food mapping table applicable for most of the selected chemical substances as well as three other specific food mapping tables tailor-made for the mapping of sulphites, nitrate and nitrite, and acrylamide have been developed. The development of the specific food mapping tables respectively for sulphites, and nitrate and nitrite have taken into consideration the nature of each food item and the likelihood of their usage as food additives in the respective food item. On the other hand, the development of the specific food mapping table for acrylamide, a process contaminant, has taken into consideration the respective cooking methods deployed for preparing the individual vegetable samples and the likelihood of acrylamide formation during the cooking process.

26. Before mapping is conducted, the 187 TDS food items covered 91% and 89% of the total daily food intake (by weight) of the Hong Kong adult population, and the younger population, respectively. After mapping, the vast majority (over 99%) of food consumed daily by both the adult and younger populations as captured in the two respective food consumption surveys are included in the dietary exposure estimation. Food items that cannot be mapped with TDS food items are mainly traditional Chinese herbs and some miscellaneous ingredients such as bird's nest.

#### *Preparation of occurrence data*

27. All analytical results that fall between the LOD and limit of quantification (LOQ) are reported numerically. Values below LOD are

substituted by zero for estimating the lower bound of exposure and by LOD for estimating the upper bound of exposure, respectively.

### *Dietary exposure estimation*

28. Dietary exposure for each individual is estimated using the following formula:

$$E_{i,j} = \frac{\sum_{k=1}^n F_{i,k} \times C_{k,j}}{BW_i}$$

Where  $E_{i,j}$  is dietary exposure to chemical substance  $j$  of individual  $i$ ,  $n$  is the number of food items consumed by individual  $i$ ,  $F_{i,k}$  is the amount of food item  $k$  consumed by individual  $i$ ,  $C_{k,j}$  is the mean concentration of chemical substance  $j$  of food item  $k$  assigned through food mapping, and  $BW_i$  is the body weight of individual  $i$ .

29. With a view to generating the dietary exposure estimates of the population, a statistical grossing up process is applied to those derived for each individual. The mean and 90<sup>th</sup> percentile of the exposure levels are selected to represent the dietary exposure of the average and high consumers, respectively, of the population and population subgroups.

30. A web-based computer system developed by the CFS, known as the Exposure Assessment System 2 (EASY2 for short) is used to perform computation of dietary exposure estimation.

(vii) Publication of results

31. Reports on the dietary exposure assessment of individual groups of substances will be prepared in phases and published separately.

**Limitations**

32. In the current study, some of the limitations are intrinsic to the TDS approach. For instance, the sampling of a limited number of individual samples of food items which in turn generates a limited number of analytical results, and the subsequent use of food mapping approach in assigning substance concentration in foods, would inevitably introduce uncertainties in dietary exposure assessment. In addition, due to the pooling of individually prepared food samples before analysis, information about the variability of substance levels in the respective food items would be lost, and thus the resulting mean concentration could contribute to the quantification of long-term average dietary exposure rather than acute dietary exposure.

33. On the other hand, the exposure estimation in this study is based on the food consumption data derived from two non-consecutive 24-hour dietary recalls. More comprehensive food consumption data on multiple-day intakes may provide better estimates of usual dietary intakes in particular for those rarely consumed items and in turn better estimates of long-term dietary exposure. Furthermore, the food list for the 2<sup>nd</sup> HKTDS was compiled based on the consumption data of the adult population without consideration of the food



consumption data of the younger population aged 6-17 as the food consumption data of the younger population was only available at a later stage.

## **Summary**

34. TDS is being carried out in Hong Kong for the second time, with an objective to estimate the latest dietary exposure of the Hong Kong population and various population subgroups to a range of chemical substances of potential food safety concern, and in turn assess the associated health risks.

35. The 2<sup>nd</sup> HKTDS comprises selection of chemical substances, development of a TDS food list, food sampling, sample preparation, laboratory analysis, dietary exposure estimation, and publication of results. A total of 2244 individual samples of the 187 TDS food items were collected and prepared into “as consumed” status on two sampling occasions between February 2023 and January 2024. The prepared “as consumed” food samples were then pooled to form 374 respective composite samples for laboratory analysis of over 130 selected chemical substances. Reports on the dietary exposure assessment of individual groups of chemical substances will be published separately in due course.

## References

---

- <sup>1</sup> World Health Organization, Food and Agriculture Organization of the United Nations & European Food Safety Authority. Towards a harmonised total diet study approach: a guidance document: joint guidance of EFSA, FAO and WHO. 2011. Available from URL: <https://iris.who.int/handle/10665/75330>
- <sup>2</sup> Food and Environmental Hygiene Department (FEHD). The First Hong Kong Total Diet Study. [cited at 27 November 2024] Available from URL: [https://www.cfs.gov.hk/english/programme/programme\\_firm/programme\\_tds\\_1st\\_HKTD\\_S.html](https://www.cfs.gov.hk/english/programme/programme_firm/programme_tds_1st_HKTD_S.html)
- <sup>3</sup> World Health Organization Regional Office for the Western Pacific. Fifth International Workshop on Total Diet Studies, Seoul, Republic of Korea, 13-14 May 2015: meeting report. 2015. Available from URL: <https://iris.who.int/handle/10665/208752>
- <sup>4</sup> FEHD. Report of The Second Hong Kong Population-based Food Consumption Survey. Hong Kong: FEHD; 2021. Available from URL: [https://www.cfs.gov.hk/english/programme/programme\\_firm/files/2nd\\_FCS\\_Report\\_29\\_Jun\\_2021.pdf](https://www.cfs.gov.hk/english/programme/programme_firm/files/2nd_FCS_Report_29_Jun_2021.pdf)
- <sup>5</sup> FEHD. Report of Food Consumption Survey in the Younger Population 2021-2022. Hong Kong: FEHD; 2023. Available from URL: [https://www.cfs.gov.hk/english/programme/programme\\_firm/files/FCSYP\\_Report\\_Eng\\_12Dec2023.pdf](https://www.cfs.gov.hk/english/programme/programme_firm/files/FCSYP_Report_Eng_12Dec2023.pdf)

## **Annexes**

- Annex 1 List of chemical substances covered in the 2<sup>nd</sup> HKTDS
- Annex 2: List of TDS food items in TDS food groups of the 2<sup>nd</sup> HKTDS
- Annex 3: Sample preparation instructions

**Chemical substances covered in the 2<sup>nd</sup> HKTDS**

<b>Substance groups</b>	<b>Examples</b>
Food additives	Sulphites, nitrate, nitrite
Metallic contaminants	Inorganic arsenic, cadmium, lead, methylmercury
Mycotoxins	Aflatoxins B1, B2, G1, G2, and M1, patulin
Persistent Organic Pollutants (POPs)	Hexachlorobutadiene (HCBD), pentachlorophenol (PCP), short-chain chlorinated paraffins (SCCPs)
Pesticide residues	Neonicotinoids, organophosphorus pesticides, carbamates, dithiocarbamate metabolites, polar pesticides
Process contaminant	Acrylamide
Other substances	Organotins, perchlorate

**Annex 2****TDS food list of the 2<sup>nd</sup> HKTDS****TDS Food Groups:**

<b>TDS Food Groups</b>	<b>Number of food items</b>	<b>Consumption amount of aged 18+* (g/ person /day)</b>	<b>Consumption amount of aged 6-17** (g/ person /day)</b>
Cereals and their products (穀物及穀物製品)	21	391	368
Vegetables and their products (蔬菜及蔬菜製品)	42	176	138
Legumes, nuts and seeds and their products (豆類、堅果和種子及其製品)	9	12	12
Fruits (水果)	18	114	84
Meat, poultry and game and their products (肉類、家禽和野味及其製品)	17	115	115
Eggs and their products (蛋及蛋類製品)	3	26	34
Fish and seafood and their products (魚類和海產及其製品)	24	38	29
Dairy products (乳類製品)	8	19	96
Fats and oils (油脂類)	2	7	8
Beverages, alcoholic (酒精飲品)	2	22	0.01
Beverages, non-alcoholic (不含酒精飲品)	12	1555	1163
Mixed dishes (混合食品)	12	142	126
Snack foods (零食食品)	1	1	2
Sugars and confectionery (糖類及甜點)	5	4	5
Condiments, sauces and herbs (調味料、醬油及香草)	11	14	12
<b>Total</b>	<b>187</b>	<b>2636</b>	<b>2193</b>

Note:

\* Consumption amount in each TDS food group is the sum of average consumption amounts of individual food items under the respective TDS food group before mapping, with reference to the food consumption data captured for the aged 18+ population through the Second Hong Kong Population-based Food Consumption Survey (2018-2020).

\*\* Consumption amount in each TDS food group is the sum of average consumption amounts of individual food items under the respective TDS food group before mapping, with reference to the food consumption data captured for the aged 6-17 population through the Food Consumption Survey in the Younger Population (2021-2022).

The weight of liquid food was assumed to be 1 g per 1 mL when calculating the consumption amount in each food group.

**TDS Food Items in TDS Food Groups:****Cereals and their products (穀物及穀物製品) (21 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Biscuit / Cookie (餅乾 / 曲奇餅)	Saltine crackers, sandwich crackers, cookies, wafer biscuit, digestive biscuit
2.	Bread, plain (麵包 (沒有餡))	White bread, plain roll/bun, wheat bread
3.	Bread, raisin (提子包)	Bread / bun with raisin
4.	Breakfast cereals (穀物早餐)	Corn flakes, wheat-based breakfast cereal, granola bar
5.	Bun, with savoury filling, baked (麵包 (含有鹹味的餡料))	Bun with sausage, bun with tuna fish, bun with ham, bun with luncheon meat, bun with barbecued pork
6.	Bun, with savoury filling, steamed (蒸包 (含有鹹味的餡料))	Steamed bun with barbecued pork, steamed bun with pork and vegetables, steamed bun with chicken
7.	Bun, with sweet filling, steamed (蒸包 (含有甜味的餡料))	Steamed bun with egg custard, steamed bun with lotus seed paste
8.	Cake (蛋糕 / 西餅)	Sponge cake, Swiss roll, gateau / cake with whipped cream, pound cake
9.	Corn (粟米)	Corn on the cob, frozen and canned corn kernel
10.	Corn starch (粟米澱粉 (粟粉))	Corn starch
11.	Deep-fried dough, Chinese style (中式油炸麵團食品)	Deep-fried fritter, ox-tongue pastry (牛腩酥), sesame ball
12.	Noodles, Chinese / Japanese style (麵條 (中式 / 日式))	Egg noodles, udon, Shanghai noodles, Japanese ramen
13.	Noodles, instant (即食麵)	Packet instant noodles, cup noodles
14.	Noodles, rice (米粉 / 米線)	Rice vermicelli (米粉), rice noodles (米線), flat noodles / "Ho Fan"
15.	Oats / Oatmeal (燕麥 / 燕麥片)	Plain oatmeal
16.	Pasta, Western style (麵條 (西式))	Macaroni, spaghetti
17.	Pastries, Chinese style (中式餅點)	Egg roll, baked mooncake, wife cake
18.	Pie / Tart (批 / 撻)	Egg tart, croissant, apple pie
19.	Pineapple bun (菠蘿包)	Pineapple bun
20.	Rice, unpolished (粗磨米飯)	Raw brown rice, raw red rice
21.	Rice, white (白飯)	Raw white rice, cooked white rice

**Vegetables and their products (蔬菜及蔬菜製品) (42 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Bamboo fungus (竹筍)	Dried bamboo fungus
2.	Bamboo shoot (竹筍)	Fresh, dried and canned bamboo shoot
3.	Beet root (紅菜頭)	Fresh and canned beet root
4.	Bitter melon (苦瓜)	Bitter melon
5.	Blanching chives (韭黃)	Blanching chives
6.	Broccoli / Cauliflower (西蘭花 / 椰菜花)	Broccoli, cauliflower

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
7.	Cabbage, Chinese (including Pe-tsai / Celery cabbage) (大白菜 / 紹菜 / 黃芽白)	Pe-tsai / Celery cabbage, baby Chinese cabbage
8.	Cabbage, Chinese flowering (菜心)	Chinese flowering cabbage
9.	Cabbage, European variety (椰菜)	European variety cabbage
10.	Cabbage, Pak-choi Chinese (白菜)	Pak-choi, Shanghai cabbage
11.	Cabbage, Pak-choi Chinese, dried (白菜乾)	Dried pak-choi Chinese cabbage
12.	Carrot / Radish (甘筍 / 蘿蔔)	Carrot, white radish
13.	Celery (西芹)	Celery
14.	Chinese amaranth (Chinese spinach) (莧菜)	Chinese amaranth
15.	Chinese kale (芥蘭)	Chinese kale
16.	Cucumber (青瓜 (黃瓜))	Cucumber
17.	Ear fungus (雲耳 / 木耳)	Fresh and dried ear fungus
18.	Eggplant (茄子 (矮瓜))	Eggplant
19.	Garlic (蒜頭)	Garlic
20.	Ginger (薑)	Ginger
21.	Hairy gourd / wax gourd (節瓜 / 冬瓜)	Hairy gourd, wax gourd
22.	Leaf mustard (芥菜)	Leaf mustard
23.	Lettuce, Chinese / European / Indian (生菜 (唐生菜 / 西生菜 / 油麥菜))	Chinese lettuce, European lettuce, Indian lettuce
24.	Mung bean sprout (綠豆芽 (芽菜))	Mung bean sprout
25.	Mushroom, button (蘑菇)	Fresh and canned button mushroom
26.	Mushroom, shiitake, dried (乾冬菇)	Dried shiitake mushroom
27.	Onion (洋蔥)	Onion
28.	Pea shoots (豆苗)	Pea shoots
29.	Peppers (sweet pepper / chili pepper) (燈籠椒 / 辣椒)	Sweet pepper, chili pepper, hot chili pepper
30.	Potato (馬鈴薯)	Potato
31.	Potato, fried (炸薯)	Ready-to-eat french fries, hash brown, potato wedges, crisscut fries
32.	Preserved vegetables (醃製蔬菜)	Preserved mustard greens, preserved Sichuan mustard, preserved "turnip", "Mui Choy", preserved leaf mustard
33.	Pumpkin (南瓜)	Pumpkin
34.	Seaweed (藻類)	Laver /nori, kelp, seaweed snacks
35.	Spinach (菠菜)	Spinach
36.	Sponge gourd (絲瓜)	Sponge gourd
37.	Spring onion (葱)	Spring onion
38.	Sweet potato (番薯)	Sweet potato

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
39.	Tomato (番茄)	Fresh and canned tomato
40.	Water spinach (蕹菜 (通菜))	Water spinach
41.	Watercress (西洋菜)	Watercress
42.	Zucchini (翠玉瓜)	Zucchini

**Legumes, nuts and seeds and their products (豆類、堅果和種子及其製品) (9 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Fermented soybean products (發酵豆類製品)	Fermented black soybean, fermented bean curd, fermented red bean curd
2.	Green peas (青豆)	Green peas
3.	Green string beans (with pod) (青豆角)	Green string beans (with pod), common beans
4.	Peanut (花生)	Raw shelled peanut, ready-to-eat peanut
5.	Peanut butter (花生醬)	Peanut butter
6.	Red bean (紅豆)	Adzuki bean /red bean
7.	Soybean curd (Tofu) (豆腐)	Soybean curd
8.	Tree nuts (堅果)	Raw chestnut, ready-to-eat walnut, ready-to-eat cashew nut, ready-to-eat almond
9.	Vermicelli, mung bean (粉絲)	Mung bean vermicelli

**Fruits (水果) (18 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Apple (蘋果)	Apple
2.	Banana (香蕉)	Banana
3.	Cherry (櫻桃 (車厘子))	Cherry
4.	Dragon fruit (火龍果)	Dragon fruit
5.	Dried fruits (乾果)	Dried raisins, dried dates, dried prunes, dried apricot, dried fig
6.	Durian (榴槿)	Durian
7.	Grapes (葡萄 (提子))	Grapes
8.	Kiwi (奇異果)	Kiwi
9.	Longan / Lychee (龍眼 / 荔枝)	Longan, lychee
10.	Mandarin / Tangerine (柑橘 / 紅桔)	Mandarin, tangerine
11.	Mango (芒果)	Mango
12.	Melon (蜜瓜)	Cantaloupe, honeydew melon
13.	Orange (橙)	Orange
14.	Papaya (木瓜)	Papaya
15.	Peach (桃)	Fresh and canned peach
16.	Pear (梨)	Pear
17.	Pineapple (菠蘿)	Fresh and canned pineapple
18.	Watermelon (西瓜)	Watermelon



**Meat, poultry and game and their products (肉類、家禽和野味及其製品) (17 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Beef (牛肉)	Beef, beef brisket /flank, beef steak
2.	Beef tendon (牛筋)	Beef tendon
3.	Chicken meat, other than chicken wing (除雞翼 (雞翅) 外的雞肉)	Chicken meat, whole chicken, chicken steak, ready-to-eat steamed plain chicken, ready-to-eat soy sauce chicken
4.	Chicken wing (雞翼 (雞翅))	Chicken wing
5.	Duck / goose, roasted (燒鴨 / 燒鵝)	Roasted duck, roasted goose
6.	Ham, pork (火腿 (豬肉))	Pork ham
7.	Liver, goose (鵝肝)	Goose liver
8.	Liver, pig (豬鬃 (豬肝))	Pig liver
9.	Luncheon meat (午餐肉)	Luncheon meat
10.	Meat ball (肉丸)	Beef ball, pork ball
11.	Meat sausage (肉腸)	Chicken sausage, pork sausage, cheese sausage, meat sausage
12.	Mutton (羊肉)	Mutton / lamb meat, lamb chop, lamb ribs / racks
13.	Pork chop (豬扒)	Pork chop
14.	Pork ribs (豬肋骨 / 豬小排)	Pork ribs, pork spareribs
15.	Pork, barbequed (叉燒)	Barbequed pork
16.	Pork, other than pork chop and pork ribs (除豬扒、豬肋骨 / 豬小排外的豬肉)	Pork, minced pork
17.	Pork, roasted (燒肉)	Roasted pork

**Eggs and their products (蛋及蛋類製品) (3 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Egg, chicken (雞蛋)	Whole chicken egg
2.	Egg, lime preserved (皮蛋)	Lime preserved egg
3.	Egg, salted (鹹蛋)	Salted egg

**Fish and seafood and their products (魚類和海產及其製品) (24 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Clam (蜆)	Clam
2.	Crab (蟹)	Mud crab, red crab, blue crab, mitten crab, king crab, pasteurised / canned crab meat
3.	Cuttlefish (墨魚)	Cuttlefish
4.	Fish ball / fish cake (魚蛋 / 魚片)	Fish ball, fish cake
5.	Fish fillet (魚柳)	Fish fillet
6.	Fish, Dace, minced (絞鯪魚肉)	Minced dace
7.	Fish, Golden thread (紅衫魚)	Golden thread

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
8.	Fish, Grass carp (鯪魚)	Grass carp
9.	Fish, Grouper (海斑)	Sabah grouper, giant grouper, leopard coral grouper, green grouper, brown-marbled grouper
10.	Fish, Mandarin fish (桂花魚)	Mandarin fish
11.	Fish, Mangrove red snapper (紅魷魚 (紅友魚 / 紅魷魚))	Mangrove red snapper
12.	Fish, Pomfret / Pompano (鯧魚 (倉魚))	White pomfret, swallow tail pomfret, pompano
13.	Fish, Salmon (三文魚)	Raw salmon, salmon sashimi
14.	Fish, Tuna (吞拿魚 (金槍魚))	Canned tuna, tuna sashimi
15.	Fish, Yellow croaker (黃花魚)	Yellow croaker
16.	Lobster (龍蝦)	Boston lobster, rock lobster
17.	Mantis shrimp (瀨尿蝦 (螳螂蝦))	Common mantis shrimp, zebra mantis shrimp
18.	Mussel (青口)	Mussel
19.	Oyster (蠔)	Ready-to-eat raw oysters, shelled oysters
20.	Salted fish (鹹魚)	Dried and bottled salted fish
21.	Scallop (扇貝 / 帶子)	Scallop
22.	Shrimp / Prawn (蝦)	Shrimp/ Prawn
23.	Shrimp / Prawn, dried (蝦米 / 蝦乾)	Dried prawn, dried shrimp
24.	Squid (魷魚)	Squid

**Dairy products (乳類製品) (8 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Cheese (芝士)	Cheddar cheese, Parmesan cheese, mozzarella cheese
2.	Fermented / Cultured beverages, dairy based (發酵 / 乳酸菌飲品 (乳品基))	Drinking yoghurt, lactobacillus drink
3.	Ice-cream (雪糕)	Ice-cream, ice-cream bar, ice-cream cone
4.	Milk beverages (奶類飲品)	Milk beverages / drinks
5.	Milk, condensed / evaporated (煉奶 / 淡奶 (花奶))	Condensed milk, evaporated milk
6.	Milk, skim (脫脂奶)	Skim milk
7.	Milk, whole (全脂奶)	Whole milk
8.	Yoghurt (乳酪)	Plain yoghurt, fruit yoghurt

**Fats and oils (油脂類) (2 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Butter (牛油)	Butter
2.	Vegetable oil (植物油)	Peanut oil, corn oil, canola oil, olive oil

**Beverages, alcoholic (酒精飲品) (2 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Beer (啤酒)	Beer
2.	Wine, red / white (紅酒 / 白酒)	Red wine, white wine

**Beverages, non-alcoholic (不含酒精飲品) (12 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Carbonated drink (including diet version) (汽水 (包括減肥汽水))	Cola, lemon-lime flavoured soda, sugar free cola
2.	Coconut water (椰子水)	Coconut water, green young coconut, smoked young coconut
3.	Coffee (咖啡)	Coffee, instant coffee powder mix
4.	Fruit and / or vegetable juice (蔬果汁)	Orange juice, pure/ mixed fruit and vegetable juice, apple juice
5.	Malt drink (麥芽飲品)	Ovaltine, Horlick's, Milo; in drink, powder and instant powder mix forms
6.	Soybean drink (豆奶飲品)	Soybean drink, soybean milk
7.	Tea (including lemon tea) (茶 (包括檸檬茶))	Pu-er, Tieguanyin, Longjing, lemon tea; in drink, tea leaves and tea bag forms
8.	Tea, chrysanthemum (菊花茶)	Chrysanthemum tea, dried chrysanthemum
9.	Tea, with milk (奶茶)	Milk tea
10.	Tea, with milk and tapioca pearls (珍珠奶茶)	Milk tea with tapioca pearls
11.	Water, bottled, distilled / purified (樽裝蒸餾 / 純淨水)	Bottled distilled water, bottled purified water
12.	Water, drinking (飲用水)	Tap water

**Mixed dishes (混合食品) (12 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Dim sum, beef ball, steamed (蒸牛肉球點心)	Steamed beef ball
2.	Dim sum, Siu Mai, steamed (蒸燒賣點心)	Shrimp siu mai
3.	Dumpling / spring roll, fried (煎炸餃子 / 春卷)	Spring roll, pan-fried pork dumpling/ pot sticker, Gyoza
4.	Dumpling, boiled (including wonton) (水餃 (包括雲吞))	Canton style wonton, boiled dumpling
5.	Dumpling, steamed (蒸餃子)	Steamed dumpling with pork and vegetables, steamed dumpling with pork and Chinese chives, shrimp dumpling / "Har gau", Chiu Chow style dumpling / "Fan guo", Shanghai style steamed pork dumpling
6.	Glutinous rice dumpling (糰)	Glutinous rice dumpling with pork, Glutinous rice wrapped in lotus leaf

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
7.	Hamburger (漢堡包)	Sausage and egg muffin / burger, beef burger, fish burger, chicken burger
8.	Pizza (薄餅)	Pizza with meat / poultry / sausage, pizza with seafood
9.	Rice-roll, plain, steamed (淨腸粉)	Steamed plain rice-roll
10.	Soup, Chinese style (中式湯水)	Chinese style soup
11.	Soup, Western style (西式湯羹)	Ready-to-eat and canned Western style soup including Borsch, cream of mushroom soup, etc.
12.	Turnip cake (蘿蔔糕)	Pan-fried turnip cake, steamed turnip cake

**Snack foods (零食食品) (1 item)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Potato chips (薯片)	Potato chips

**Sugars and confectionery (糖類及甜點) (5 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Chocolate (巧克力)	Milk chocolate, chocolate with nuts, dark chocolate, chocolate with inclusions other than nuts
2.	Honey (蜂蜜 (蜜糖))	Honey
3.	Jam (果醬)	Strawberry jam, marmalade / orange jam, apple jam, apricot jam
4.	Sugar, brown / rock (紅糖 (黃糖 / 黑糖) / 冰糖)	Brown sugar in pieces/ slab sugar, rock sugar, brown sugar
5.	Sugar, white, granulated (白砂糖)	Granulated white sugar

**Condiments, sauces and herbs (調味料、醬油及香草) (11 items)**

	<b>TDS Food Item</b>	<b>Food(s) sampled</b>
1.	Chicken powder / cube (雞粉 / 雞湯粒)	Chicken powder, chicken cube
2.	Chinese parsley (芫茜)	Chinese parsley
3.	Curry sauce (咖喱醬 / 咖喱汁)	Curry paste, curry sauce
4.	Oyster sauce (蠔油)	Oyster sauce
5.	Salad dressing (沙律醬)	Mayonnaise, Miracle Whip, light mayonnaise, Thousand Island salad dressing
6.	Sesame seed oil (芝麻油)	Sesame seed oil
7.	Soy sauce (豉油)	Light soy sauce, dark soy sauce
8.	Table salt (餐桌鹽 (幼鹽))	Table salt
9.	Tomato paste / ketchup (番茄醬 / 番茄汁)	Tomato ketchup, tomato paste
10.	Vinegar (醋)	Chinese black vinegar, red vinegar, white vinegar, balsamic vinegar
11.	White pepper (白胡椒)	White pepper

**Annex 3****Sample preparation instructions****Terminology**

For consistency, the terms used for sample preparation instructions are defined as follows:

Boil	Cook food in boiling distilled water, except where other instructions are provided.
Blanch	Boil food in boiling distilled water briefly, in accordance with the time period specified.
Composite	Combine the six individual homogenised samples of the same TDS food item with equal weights to obtain a composite sample using blender for general food, or cake mixer for viscous food (e.g. cheese, butter), or just stirring with ladle / spoon for liquid food or water, until a homogenous form is attained. To ensure the homogeneity while packing liquid food with suspended particles, magnetic stirrers could be used for mixing sample while packing.
Cut	Cut food into a specified shape (e.g. pieces, half, quarters, eighths, strips, chunks etc.), using stainless steel knife.
Drain	Remove excessive liquid (or water) with colanders.
Homogenise	Blend the prepared samples individually using a blender until a homogeneous mixture is attained – usually take 1 to 8 minutes depending on the moisture content of the sample.
Pan-fry	Fry foods in low to medium heat (without frequent turn over) in a frying pan in one single layer, without adding any cooking oil. Do not overload the pan. Cover the pan with a lid when necessary.
Rinse	Remove any remaining dirt / impurities by washing the foods with distilled water briefly.
Slice	Slice foods into a specified thickness.
Soak	Immerse foods in distilled water for a specified period of time.
Steam	Steam foods in a pre-heated steamer for a specified period of time.
Stew	Cook foods slowly until done / tender in a small amount of distilled water in a closed wok, with occasional stirring and adding extra distilled water as necessary, throughout the cooking period.
Stir-fry	Fry foods in medium heat with stirring and turning over frequently in a wok, without adding any cooking oil. Do not overload the wok. Cover the wok with a lid when necessary.
Wash	Wash foods with distilled water in accordance with local practice to remove dirt and impurities.

Food preparation instructions for each TDS food item

All samples were prepared individually according to the food preparation as listed in the table below. Then, the six individual prepared samples of the same TDS food item were composited to obtain a single composite sample.

**Cereals and their products (穀物及穀物製品) (21 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Biscuit / Cookie (餅乾 / 曲奇餅)	Homogenise.
2.	Bread, plain (麵包 (沒有餡))	Homogenise.
3.	Bread, raisin (提子包)	Homogenise.
4.	Breakfast cereals (穀物早餐)	Homogenise.
5.	Bun, with savoury filling, baked (麵包 (含有鹹味的餡料))	Homogenise.
6.	Bun, with savoury filling, steamed (蒸包 (含有鹹味的餡料))	For chilled or frozen bun, prepare according to instructions on the packet (or steam for 15 minutes), and homogenise. For ready-to-eat bun, homogenise.
7.	Bun, with sweet filling, steamed (蒸包 (含有甜味的餡料))	For chilled or frozen bun, prepare according to instructions on the packet (or steam for 15 minutes), and homogenise. For ready-to-eat bun, homogenise.
8.	Cake (蛋糕 / 西餅)	Homogenise.
9.	Corn (粟米)	For corn on the cob, remove husks and silk as appropriate, wash, boil, remove cob, and homogenise. For corn kernel, either boil (for frozen item only) or drain the content (for canned item only), and homogenise.
10.	Corn starch (粟米澱粉 (粟粉))	Homogenise.
11.	Deep-fried dough, Chinese style (中式油炸麵團食品)	Homogenise.
12.	Noodles, Chinese / Japanese style (麵條 (中式 / 日式))	Cook according to instructions on the packet (or boil until cooked), drain immediately, and homogenise.
13.	Noodles, instant (即食麵)	Cook according to instructions on the packet (discard flavour sachet, dehydrated ingredients and oil packet), drain immediately, and homogenise.
14.	Noodles, rice (米粉 / 米線)	Cook according to instructions on the packet (or boil until cooked), drain immediately, and homogenise.
15.	Oats / Oatmeal (燕麥 / 燕麥片)	Prepare according to instructions on the packet (if oatmeal to water ratio is not provided, add 40 g of oatmeal to 250 mL of distilled water), and homogenise.
16.	Pasta, Western style (麵條 (西式))	Cook according to instructions on the packet (or boil until cooked), drain immediately, and homogenise.
17.	Pastries, Chinese style (中式餅點)	Homogenise.
18.	Pie / Tart (批 / 撻)	Homogenise.
19.	Pineapple bun (菠蘿包)	Homogenise.

	<b>TDS Food Item</b>	<b>Food preparation</b>
20.	Rice, unpolished (粗磨米飯)	Wash, add distilled water (1:1.5), soak, steam, and homogenise.
21.	Rice, white (白飯)	For raw rice, wash, add distilled water (1:1.2), steam, and homogenise. For ready-to-eat cooked rice, homogenise.

### Vegetables and their products (蔬菜及蔬菜製品) (42 items)

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Bamboo fungus (竹筍)	Remove top and bottom ends, soak (for dried item only), wash, blanch, boil with table salt added, and homogenise.
2.	Bamboo shoot (竹筍)	Either remove outer fibrous leaves (for fresh item only) or soak (for dried item only), wash, slice, boil with table salt added, and homogenise. For canned bamboo shoot, drain the content, stew with table salt added, and homogenise.
3.	Beet root (紅菜頭)	For fresh beet root, remove stem end, peel, wash, slice, boil with table salt added, and homogenise. For canned beet root, drain the content, and homogenise.
4.	Bitter melon (苦瓜)	Remove top, stem and seeds, wash, slice, either blanch and then stir-fry or stew with table salt added, and homogenise.
5.	Blanching chives (韭黃)	Wash, cut into strips, stir-fry with table salt added, and homogenise.
6.	Broccoli / Cauliflower (西蘭花 / 椰菜花)	Trim, cut into florets, wash, either blanch and then stir-fry or boil with table salt added, and homogenise.
7.	Cabbage, Chinese (including Pe-tsai / Celery cabbage) (大白菜 / 紹菜 / 黃芽白)	Cut into strips, wash, either stir-fry or boil with table salt added, and homogenise.
8.	Cabbage, Chinese flowering (菜心)	Wash, cut into strips, either stir-fry or boil with table salt added, and homogenise.
9.	Cabbage, European variety (椰菜)	Cut into eighths, wash, either stir-fry or boil with table salt added, and homogenise.
10.	Cabbage, Pak-choi Chinese (白菜)	Wash, either stir-fry or boil with table salt added, and homogenise.
11.	Cabbage, Pak-choi Chinese, dried (白菜乾)	Soak, wash, boil with table salt added, and homogenise.
12.	Carrot / Radish (甘筍 / 蘿蔔)	Peel, remove ends, wash, slice, either boil or stir-fry with table salt added, and homogenise.
13.	Celery (西芹)	Remove root end and tough strings, wash, cut into strips, blanch, stir-fry with table salt added, and homogenise.
14.	Chinese amaranth (Chinese spinach) (莧菜)	Remove stem end, wash, cut into strips, stir-fry with table salt added, and homogenise.
15.	Chinese kale (芥蘭)	Wash, cut into strips, either stir-fry or boil with table salt added, and homogenise.

	<b>TDS Food Item</b>	<b>Food preparation</b>
16.	Cucumber (青瓜 (黃瓜))	For cucumber to be cooked, remove top and seeds, wash, slice, stir-fry with table salt added, and homogenise. For ready-to-eat raw cucumber, remove top, wash, cut into chunks, and homogenise.
17.	Ear fungus (雲耳 / 木耳)	For dried ear fungus, soak, wash, either stir-fry or boil with table salt added, and homogenise. For fresh ear fungus, wash, blanch, stir-fry with table salt added, and homogenise.
18.	Eggplant (茄子 (矮瓜))	Remove stem end, wash, slice, stir-fry with table salt added, and homogenise.
19.	Garlic (蒜頭)	Remove papery skin and root ends, wash, slice, stir-fry with table salt added, and homogenise.
20.	Ginger (薑)	Peel, wash, slice, either stir-fry with table salt added or steam, and homogenise.
21.	Hairy gourd / wax gourd (節瓜 / 冬瓜)	For hairy gourd, peel, remove ends, wash, slice, boil with table salt added, and homogenise. For wax gourd, peel, remove seeds and stringy fibres, wash, cut into chunks, boil with table salt added, and homogenise.
22.	Leaf mustard (芥菜)	Wash, cut into strips, boil with table salt added, and homogenise.
23.	Lettuce, Chinese / European / Indian (生菜 (唐生菜 / 西生菜 / 油麥菜))	Remove stem end, wash, cut into strips, either stir-fry or boil with table salt added, and homogenise.
24.	Mung bean sprout (綠豆芽 (芽菜))	Remove both ends, wash, stir-fry with table salt added, and homogenise.
25.	Mushroom, button (蘑菇)	Either wash (for fresh item only) or drain the content (for canned item only), stew with table salt added, and homogenise.
26.	Mushroom, shiitake, dried (乾冬菇)	Soak, remove stalks, wash, stew with table salt added, and homogenise.
27.	Onion (洋蔥)	Remove stem end and papery skin, wash, slice, either stir-fry or stew with table salt added, and homogenise.
28.	Pea shoots (豆苗)	Wash, either stir-fry or boil with table salt added, and homogenise.
29.	Peppers (sweet pepper / chili pepper) (燈籠椒 / 辣椒)	For sweet pepper / chili pepper, remove top, stem and seeds, wash, cut into squares, stir-fry with table salt added, and homogenise. For hot chili pepper, remove top and stem, wash, cut into rings, steam with table salt added, and homogenise.
30.	Potato (馬鈴薯)	Peel, wash, cut into chunks, either boil or stew with table salt added, and homogenise.
31.	Potato, fried (炸薯)	Homogenise.
32.	Preserved vegetables (醃製蔬菜)	Wash, soak, rinse, cut into strips, then stir-fry, boil or steam, and homogenise.



	<b>TDS Food Item</b>	<b>Food preparation</b>
33.	Pumpkin (南瓜)	Peel, remove top, stem, seeds and stringy fibres, wash, slice, either boil or steam with table salt added, and homogenise.
34.	Seaweed (藻類)	For dried laver / nori, soak, wash, boil with table salt added, and homogenise. For dried kelp, soak, wash, boil, and homogenise. For ready-to-eat laver / nori and seaweed snacks, homogenise.
35.	Spinach (菠菜)	Remove root end, wash, cut into strips, either stir-fry or boil with table salt added, and homogenise.
36.	Sponge gourd (絲瓜)	Peel, remove ends, wash, slice, either stir-fry or boil with table salt added, and homogenise.
37.	Spring onion (葱)	Remove root end, wash, cut into strips, either stir-fry or boil with table salt added, and homogenise.
38.	Sweet potato (番薯)	Wash, boil, peel, and homogenise.
39.	Tomato (番茄)	Either remove stem, wash and cut into quarters (for fresh item) or drain the content (for canned item), then either stir-fry or boil with table salt added, and homogenise.
40.	Water spinach (蕹菜 (通菜))	Wash, cut into strips, either stir-fry or boil with table salt added, and homogenise.
41.	Watercress (西洋菜)	Wash, cut into strips, boil with table salt added, and homogenise.
42.	Zucchini (翠玉瓜)	Remove ends, wash, slice, either stir-fry or boil with table salt added, and homogenise.

#### **Legumes, nuts and seeds and their products (豆類、堅果和種子及其製品) (9 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Fermented soybean products (發酵豆類製品)	For fermented black soybean, wash, steam, and homogenise. For fermented bean curds, drain the content, and homogenise.
2.	Green peas (青豆)	Either stir-fry or boil with table salt added, and homogenise.
3.	Green string beans (with pod) (青豆角)	Remove ends and strings, wash, cut into strips, blanch, stir-fry with table salt added, and homogenise.
4.	Peanut (花生)	For shelled peanut, soak, wash, stew with table salt added, and homogenise. For ready-to-eat peanut, remove shells as appropriate, and homogenise.
5.	Peanut butter (花生醬)	Homogenise.
6.	Red bean (紅豆)	Soak, wash, boil, and homogenise.
7.	Soybean curd (Tofu) (豆腐)	Wash, boil with table salt added, and homogenise.
8.	Tree nuts (堅果)	For raw chestnut, remove shells and brown skin as appropriate, wash, stew with table salt added, and homogenise.

	<b>TDS Food Item</b>	<b>Food preparation</b>
		For other ready-to-eat tree nuts, remove shells as appropriate, and homogenise.
9.	Vermicelli, mung bean (粉絲)	Soak, rinse, stew with table salt added, and homogenise.

**Fruits (水果) (18 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Apple (蘋果)	Wash, cut into quarters, remove core and stem, and homogenise.
2.	Banana (香蕉)	Remove skin, and homogenise.
3.	Cherry (櫻桃 (車厘子))	Wash, remove stem and stone, and homogenise.
4.	Dragon fruit (火龍果)	Wash, cut into quarters, remove skin, and homogenise.
5.	Dried fruits (乾果)	Remove stones as appropriate, and homogenise.
6.	Durian (榴槤)	Remove shell and collect the segments (for fresh item only) or defrost (for frozen item only), remove stones, and homogenise.
7.	Grapes (葡萄 (提子))	Wash, remove stems and seeds as appropriate, and homogenise.
8.	Kiwi (奇異果)	Wash, cut into halves, scoop out the flesh, and homogenise.
9.	Longan / Lychee (龍眼 / 荔枝)	Wash, remove stems, shells and stones, and homogenise.
10.	Mandarin / Tangerine (柑橘 / 紅桔)	Wash, remove skin and seeds, and homogenise.
11.	Mango (芒果)	Wash, cut into halves, remove stone, scoop out the flesh, and homogenise.
12.	Melon (蜜瓜)	Wash, cut into wedges, remove seeds and skin, cut into chunks, and homogenise.
13.	Orange (橙)	Wash, cut into quarters, remove skin and seeds, and homogenise.
14.	Papaya (木瓜)	Wash, cut into wedges, remove seeds and skin, cut into chunks, and homogenise.
15.	Peach (桃)	For fresh peach, wash, peel, cut into quarters, remove stone, and homogenise. For canned peach, drain the content, and homogenise.
16.	Pear (梨)	Wash, cut into quarters, remove core and stem, and homogenise.
17.	Pineapple (菠蘿)	For fresh pineapple, wash, remove inedible parts, cut into chunks, and homogenise. For canned pineapple, drain the content, and homogenise.
18.	Watermelon (西瓜)	Wash, cut into wedges, remove seeds and skin, cut into chunks, and homogenise.

**Meat, poultry and game and their products (肉類、家禽和野味及其製品) (17 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Beef (牛肉)	Wash, either slice (for beef only) or cut into chunks (for beef brisket / flank only), boil with table salt added, and homogenise. For beef steak, wash, pan-fry with table salt added, remove bones as appropriate, and homogenise.
2.	Beef tendon (牛筋)	Wash, cut into chunks, boil with table salt added, and homogenise.
3.	Chicken meat, other than chicken wing (除雞翼 (雞翅) 外的雞肉)	For chicken meat, wash, slice, boil with table salt added, and homogenise. For chicken steak, wash, pan-fry with table salt added, and homogenise. For whole chicken, wash, remove head, neck, feet and offal, chop the remaining carcass into chunks, stew with table salt added, remove bones, and homogenise. For ready-to-eat steamed plain chicken and soy sauce chicken, drain seasoning sauce as appropriate, remove head, neck, feet and bones, and homogenise.
4.	Chicken wing (雞翼 (雞翅))	Wash, either stew or pan-fry with table salt added, remove bones, and homogenise.
5.	Duck / goose, roasted (燒鴨 / 燒鵝)	Drain seasoning sauce as appropriate, remove head, neck, feet and bones, and homogenise.
6.	Ham, pork (火腿 (豬肉))	Homogenise.
7.	Liver, goose (鵝肝)	Wash, slice, pan-fry with table salt added, and homogenise.
8.	Liver, pig (豬鬃 (豬肝))	Wash, slice, boil with table salt added, and homogenise.
9.	Luncheon meat (午餐肉)	Slice, pan-fry, and homogenise.
10.	Meat ball (肉丸)	Wash, boil, and homogenise.
11.	Meat sausage (肉腸)	Either pan-fry or boil, and homogenise.
12.	Mutton (羊肉)	For mutton / lamb meat, wash, slice, boil with table salt added, and homogenise. For lamb chop / ribs / racks, wash, cut into individual chops as appropriate, pan-fry with table salt added, and homogenise.
13.	Pork chop (豬扒)	Wash, pan-fry with table salt added, remove bones as appropriate, and homogenise.
14.	Pork ribs (豬肋骨 / 豬小排)	Wash, steam with table salt added, remove bones, and homogenise.
15.	Pork, barbequed (叉燒)	Cut into pieces as appropriate, and homogenise.
16.	Pork, other than pork chop and pork ribs (除豬扒、豬肋骨 / 豬小排外的豬肉)	For pork, wash, slice, stir-fry with table salt added, and homogenise. For minced pork, steam with table salt added, and homogenise.
17.	Pork, roasted (燒肉)	Remove bones and cut into pieces as appropriate, and homogenise.

**Eggs and their products (蛋及蛋類製品) (3 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Egg, chicken (雞蛋)	Wash, remove shells, either whisk the egg with table salt added and then stir-fry or simply pan-fry, and homogenise.
2.	Egg, lime preserved (皮蛋)	Remove soil, wash, remove shells, boil, and homogenise.
3.	Egg, salted (鹹蛋)	Remove soil, wash, steam, remove shells, and homogenise.

**Fish and seafood and their products (魚類和海產及其製品) (24 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Clam (蜆)	Wash, stir-fry with table salt added, remove shells as appropriate, and homogenise.
2.	Crab (蟹)	Wash, either stir-fry with table salt added or steam, remove inedible parts, and homogenise. For canned / pasteurised crab meat, drain the content, and homogenise.
3.	Cuttlefish (墨魚)	Remove inedible parts, wash, slice as appropriate, boil with table salt added, and homogenise.
4.	Fish ball / fish cake (魚蛋 / 魚片)	Wash, slice (for fish cake only), boil, and homogenise.
5.	Fish fillet (魚柳)	Wash, pan-fry with table salt added, remove bones, and homogenise.
6.	Fish, Dace, minced (絞鯪魚肉)	Either pan-fry or boil, and homogenised.
7.	Fish, Golden thread (紅衫魚)	Wash, remove scales and viscera, pan-fry with table salt added, remove inedible parts, and homogenise.
8.	Fish, Grass carp (鯪魚)	Wash, remove scales and viscera, steam, remove inedible parts, and homogenise.
9.	Fish, Grouper (海斑)	Wash, remove scales and viscera, steam, remove inedible parts, and homogenise.
10.	Fish, Mandarin fish (桂花魚)	Wash, remove scales and viscera, steam, remove inedible parts, and homogenise.
11.	Fish, Mangrove red snapper (紅魷魚 (紅友魚 / 紅魷魚))	Wash, remove scales and viscera, steam, remove inedible parts, and homogenise.
12.	Fish, Pomfret / Pompano (鯧魚 (倉魚))	Wash, remove scales and viscera, steam, remove inedible parts, and homogenise.
13.	Fish, Salmon (三文魚)	For raw salmon, wash, remove scales and viscera, pan-fry with table salt added, remove inedible parts, and homogenise. For ready-to-eat salmon sashimi, homogenise.
14.	Fish, Tuna (吞拿魚 (金槍魚))	For canned tuna, drain the content, and homogenise. For ready-to-eat tuna sashimi, homogenise.
15.	Fish, Yellow croaker (黃花魚)	Wash, remove scales and viscera, steam, remove inedible parts, and homogenise.
16.	Lobster (龍蝦)	Wash, either chop into chunks and then stew with table salt added or boil, remove inedible parts, and homogenise.

	<b>TDS Food Item</b>	<b>Food preparation</b>
17.	Mantis shrimp (瀨尿蝦 (螳螂蝦))	Wash, steam, remove inedible parts, and homogenise.
18.	Mussel (青口)	Wash, boil with table salt added, remove inedible parts, and homogenise.
19.	Oyster (蠔)	For shelled oyster, wash, boil with table salt added, and homogenise. For ready-to-eat raw oyster, wash, remove shells, and homogenise.
20.	Salted fish (鹹魚)	Either wash (for dried item only) or drain the content (for bottled item only), steam, remove inedible parts, and homogenise.
21.	Scallop (扇貝 / 帶子)	Wash, remove the inedible parts as appropriate, either stir-fry with table salt added or steam, homogenise.
22.	Shrimp / Prawn (蝦)	Wash, either stir-fry with table salt added or boil, remove inedible parts as appropriate, and homogenise.
23.	Shrimp / Prawn, dried (蝦米 / 蝦乾)	Soak, rinse, either stir-fry or stew, homogenise.
24.	Squid (魷魚)	Remove inedible parts, wash, slice, stir-fry with table salt added, and homogenise.

**Dairy products (乳類製品) (8 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Cheese (芝士)	Homogenise.
2.	Fermented/Cultured beverages, dairy based (發酵/乳酸菌飲品 (乳品基))	Mix into a homogenous form.
3.	Ice-cream (雪糕)	Allow to defrost and homogenise.
4.	Milk beverages (奶類飲品)	Mix into a homogenous form.
5.	Milk, condensed / evaporated (煉奶 / 淡奶 (花奶))	Homogenise.
6.	Milk, skim (脫脂奶)	Mix into a homogenous form.
7.	Milk, whole (全脂奶)	Mix into a homogenous form.
8.	Yoghurt (乳酪)	Homogenise.

**Fats and oils (油脂類) (2 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Butter (牛油)	Homogenise.
2.	Vegetable oil (植物油)	Mix into a homogenous form.

**Beverages, alcoholic (酒精飲品) (2 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Beer (啤酒)	Mix into a homogenous form.
2.	Wine, red / white (紅酒 / 白酒)	Mix into a homogenous form.

**Beverages, non-alcoholic (不含酒精飲品) (12 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Carbonated drink (including diet version) (汽水 (包括減肥汽水))	Mix into a homogenous form.
2.	Coconut water (椰子水)	For fresh coconut, open the coconut and collect the water inside, and mix into a homogenous form. For prepackaged coconut water, mix into a homogenous form.
3.	Coffee (咖啡)	For instant coffee powder mix, prepare according to the instructions on packet, and mix into a homogenous form. For ready-to-drink coffee, mix into a homogenous form.
4.	Fruit and / or vegetable juice (蔬果汁)	Mix into a homogenous form.
5.	Malt drink (麥芽飲品)	For powder and instant powder mix, prepare according to the instructions on packet, and mix into a homogenous form. For ready-to-drink malt drink, mix into a homogenous form.
6.	Soybean drink (豆奶飲品)	Mix into a homogenous form.
7.	Tea (including lemon tea) (茶 (包括檸檬茶))	For tea leaves / bag, prepare according to the instructions on the packet, or add 150 mL boiling distilled water to 2 g of tea leaves or 1 tea bag and steep for 5 minutes and then remove tea leaves / bag, and mix into a homogenous form. For ready-to-drink tea, mix into a homogenous form.
8.	Tea, chrysanthemum (菊花茶)	For dried chrysanthemum, prepare according to the instructions on the packet, or add 800 mL boiling distilled water to 8 g of dried chrysanthemum and hold for 8 minutes and then remove chrysanthemum, and mix into a homogenous form. For ready-to-drink chrysanthemum tea, mix into a homogenous form.
9.	Tea, with milk (奶茶)	Mix into a homogenous form.
10.	Tea, with milk and tapioca pearls (珍珠奶茶)	Homogenise.
11.	Water, bottled, distilled / purified (樽裝蒸餾 / 純淨水)	Mix into a homogenous form.
12.	Water, drinking (飲用水)	Boil, and mix into a homogenous form.

**Mixed dishes (混合食品) (12 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Dim sum, beef ball, steamed (蒸牛肉球點心)	For chilled or frozen beef ball, prepare according to instructions on the packet (or steam for 15 minutes), and homogenise. For ready-to-eat beef ball, homogenise.
2.	Dim sum, Siu Mai, steamed (蒸燒賣點心)	For chilled or frozen Siu Mai, prepare according to instructions on the packet (or steam for 10 minutes), and homogenise. For ready-to-eat Siu Mai, homogenise.
3.	Dumpling / spring roll, fried (煎炸餃子 / 春卷)	Homogenise.
4.	Dumpling, boiled (including wonton) (水餃 (包括雲吞))	For uncooked dumpling, prepare according to instructions on the packet for boiling (or boil for 10 minutes), and homogenise. For ready-to-eat dumpling, homogenise.
5.	Dumpling, steamed (蒸餃子)	For uncooked dumpling, prepare according to instructions on the packet for steaming (or steam for 15 minutes), and homogenise. For ready-to-eat dumpling, homogenise.
6.	Glutinous rice dumpling (糰)	For chilled or frozen glutinous rice dumpling, prepare according to instructions on the packet (or steam for 15 minutes), remove the leaf wrap and bones as appropriate, and homogenise. For ready-to-eat glutinous rice dumpling, remove the leaf wrap and bones as appropriate, and homogenise.
7.	Hamburger (漢堡包)	Homogenise.
8.	Pizza (薄餅)	Homogenise.
9.	Rice-roll, plain, steamed (淨腸粉)	Homogenise.
10.	Soup, Chinese style (中式湯水)	Remove all ingredients and retain the soup liquid only, and mix into a homogenous form.
11.	Soup, Western style (西式湯羹)	For canned soup, prepare according to instructions on the packet, and homogenise. For ready-to-eat soup, remove inedible parts as appropriate, and homogenise.
12.	Turnip cake (蘿蔔糕)	Homogenise.

**Snack foods (零食食品) (1 item)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Potato chips (薯片)	Homogenise.

**Sugars and confectionery (糖類及甜點) (5 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Chocolate (巧克力)	Homogenise.
2.	Honey (蜂蜜 (蜜糖))	Homogenise.
3.	Jam (果醬)	Homogenise.
4.	Sugar, brown / rock (紅糖 (黃糖 / 黑糖) / 冰糖)	Homogenise.
5.	Sugar, white, granulated (白砂糖)	Homogenise.

**Condiments, sauces and herbs (調味料、醬油及香草) (11 items)**

	<b>TDS Food Item</b>	<b>Food preparation</b>
1.	Chicken powder / cube (雞粉 / 雞湯粒)	Homogenise.
2.	Chinese parsley (芫茜)	Remove root ends, wash, cut into pieces, and homogenise.
3.	Curry sauce (咖喱醬 / 咖喱汁)	Homogenise.
4.	Oyster sauce (蠔油)	Homogenise.
5.	Salad dressing (沙律醬)	Homogenise.
6.	Sesame seed oil (芝麻油)	Mix into a homogenous form.
7.	Soy sauce (豉油)	Mix into a homogenous form.
8.	Table salt (餐桌鹽 (幼鹽))	Homogenise.
9.	Tomato paste / ketchup (番茄醬 / 番茄汁)	Homogenise.
10.	Vinegar (醋)	Mix into a homogenous form.
11.	White pepper (白胡椒)	Homogenise.