

Package ‘nutrientr’

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Title R Wrapper for the Canadian Nutrient File API

Version 0.1

Description Contains functions that wraps the Canadian Nutrient File API available at <https://hc-sc.api.canada.ca/en/detail?api=cnf>.

This database reports the quantity of nutrients in foods commonly consumed in Canada.

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Suggests rmarkdown, knitr

VignetteBuilder knitr

NeedsCompilation no

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clean_data	<i>clean_data</i> Helper function that formats the output of the <i>query_api</i> function into a tibble with appropriate column types
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Description

clean_data Helper function that formats the output of the query_api function into a tibble with appropriate column types

Usage

```
clean_data(query_api_output)
```

Arguments

query_api_output
the output provided by the query_api function.

```
get_all_nutrient_info get_all_nutrient_info(foodCode)
```

Description

Makes queries to the Canadian Nutrient APIs to get all available nutrient information about a particular food.

Usage

```
get_all_nutrient_info(foodCode, apiKey = NULL, lang = "en")
```

Arguments

foodCode	The code indicating the food you want to search for.
apiKey	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientamount . If none is provided, the system environment variables will be checked.
lang	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing all available nutrient information about the food code.

Examples

```
## Not run:  
get_all_nutrient_info(foodCode = 45)  
  
## End(Not run)
```

get_food	<i>get_food</i>
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Description

Makes a query to the Canadian Nutrient File food endpoint. This endpoint returns data from a list of food codes and corresponding names.

Usage

```
get_food(apiKey = NULL, foodCode = NULL, lang = "en")
```

Arguments

apiKey	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientamount . If none is provided, the system environment variables will be checked.
foodCode	The code indicating the food you want to search for. If null, all foods are returned.
lang	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing food names and food ids.

Examples

```
## Not run:  
get_food()  
get_food(foodCode = 2314)  
get_food(foodcode = 2314, lang = "fr")  
  
## End(Not run)
```

get_key	<i>Retrieves the API key</i>
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Description

get_key stops execution and returns an error message if the environment variable CN_API is not set to the user's API key. If the environment variable is not set, the function returns an error message.

Usage

```
get_key()
```

Value

The user's API key, if set as an environment variable. If key is not set, returns an error message indicating that the user can either set the environment variable CN_API or pass the API key as an argument to the function.

References

Note that this function is based on, and repeats much of the code in the R API package best practices, available at <https://httr.r-lib.org/articles/api-packages.html#overall-design-1>.

Examples

```
## Not run:  
get_key()  
  
## End(Not run)
```

get_nutrientamount	<i>get_nutrientamount</i>
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Description

Makes a query to the Canadian Nutrient File nutrientamount endpoint. This endpoint returns a list of nutrient id's and details about their corresponding nutrient amounts, standard error of observation of nutrient amount and their names. For instance, for nutrient id 5, the name of the nutrient measured is caffeine and its nutrient value is 0.

Usage

```
get_nutrientamount(apiKey = NULL, foodCode = NULL, lang = "en")
```

Arguments

apiKey	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientamount . If none is provided, the system environment variables will be checked.
foodCode	The code indicating the food you want to search for. If null, all foods and their corresponding nutrient amount are returned.
lang	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing the foodCode, nutrient_value, number_observation, nutrientNameId, nutrient_web_name, nutrient_source_id

Examples

```
## Not run:
get_nutrientamount()
get_nutrientamount(foodCode = 4)
get_nutrientamount(foodCode = 4, lang = "fr")

## End(Not run)
```

get_nutrientgroup	<i>get_nutrientgroup</i>
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Description

Makes a query to the Canadian Nutrient File refuseamount endpoint. This endpoint returns a list of all nutrient group ids and their names. For instance, if nutrient group id is mentioned as 5, the corresponding group name is amino acids

Usage

```
get_nutrientgroup(apiKey = NULL, nutrientGroupId = NULL, lang = "en")
```

Arguments

apiKey	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientgroup . If none is provided, the system environment variables will be checked.
nutrientGroupId	The code indicating the nutrient group you want to search for. If null, all foods and their corresponding names are returned.
lang	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing nutrient group's id, name, order

Examples

```
## Not run:
get_nutrientgroup()
get_nutrientgroup(nutrientGroupId = 7)
get_nutrientgroup(nutrientGroupId = 7, lang = "fr")
## End(Not run)
```

<code>get_nutrientname</code>	<i>get_nutrientname</i>
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Description

Makes a query to the Canadian Nutrient File nutrientname endpoint. This endpoint returns a list of all nutrient names, symbols, names, unit of measurement, nutrient group name, etc. For instance, for nutrient name id of 810, the corresponding nutrient symbol is STAR and nutrient name is STARCH, unit is 2 and nutrient group id is 2.

Usage

```
get_nutrientname(apiKey = NULL, nutrientNameId = NULL, lang = "en")
```

Arguments

<code>apiKey</code>	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientname . If none is provided, the system environment variables will be checked.
<code>nutrientNameId</code>	The code indicating the food name you want to search for. If null, all foods and their corresponding symbols and are returned.
<code>lang</code>	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing nutrient name id, name, code, web_name and other details

Examples

```
## Not run:
get_nutrientname()
get_nutrientname(nutrientNameId = 550)
get_nutrientname(nutrientNameId = 550, lang = "fr")
## End(Not run)
```

get_nutrientsource *get_nutrientsource*

Description

Makes a query to the Canadian Nutrient File nutrientsource endpoint. This endpoint returns a list of nutrient source id's and their corresponding description.

Usage

```
get_nutrientsource(apiKey = NULL, nutrientSourceId = NULL, lang = "en")
```

Arguments

apiKey	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientamount . If none is provided, the system environment variables will be checked.
nutrientSourceId	The code indicating the nutrient source you want to search for. If null, all nutrient sources are returned.
lang	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing the id's of nutrient sources as well as their corresponding description.

Examples

```
## Not run:  
get_nutrientsource()  
get_nutrientsource(nutrientSourceId = 108)  
get_nutrientsource(nutrientSourceId = 108, lang = "fr")  
## End(Not run)
```

get_refuseamount *get_refuseamount*

Description

Makes a query to the Canadian Nutrient File refuseamount endpoint. This endpoint returns a list of refuse amounts and name as well as the corresponding food code and description. Refuse amounts correspond to the inedible portion of the food. For instance, searching for food code 557 (Chicken, broiler, meat, skin, giblets and neck) will return a refuse amount of 28 and its associated name is 'bone'.

Usage

```
get_refuseamount(apiKey = NULL, foodCode = NULL, lang = "en")
```

Arguments

apiKey	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientamount . If none is provided, the system environment variables will be checked.
foodCode	The code indicating the food you want to search for. If null, all foods and their corresponding refuse amounts are returned.
lang	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing refuse name, refuse amount, food names and food codes.

Examples

```
## Not run:
get_refuseamount()
get_refuseamount(foodCode = 557)
get_refuseamount(foodCode = 557, lang = "fr")
## End(Not run)
```

<i>get_servingsize</i>	<i>get_servingsize</i>
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Description

Makes a query to the Canadian Nutrient File servingsize endpoint. This endpoint returns a list of serving sizes as well as the corresponding food code and description. The conversion factor value is also given. This represents the proportion of weight between cooked edible portion and raw edible portion. [conversion factor](#)

Usage

```
get_servingsize(apiKey = NULL, foodCode = NULL, lang = "en")
```

Arguments

apiKey	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientamount . If none is provided, the system environment variables will be checked.
foodCode	The code indicating the food you want to search for. If null, all foods and their corresponding serving sizes are returned.
lang	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing conversion factor values, food names, food codes and serving sizes.

Examples

```
## Not run:
get_servingsize()
get_servingsize(foodCode = 45)
get_servingsize(foodCode = 45, lang = "fr")
## End(Not run)
```

get_yieldamount	<i>get_yieldamount</i>
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Description

Makes a query to the Canadian Nutrient File yieldamount endpoint. This endpoint returns data from a list of food codes and corresponding yield amounts (yield from refuse and or cooking losses). For instance, if you search the food id 1002 (Beef Gravy), it will tell you that it takes 5.55 g dehydrated to make 60 mL and 9.26g to make 100 mL.

Usage

```
get_yieldamount(apiKey = NULL, foodCode = NULL, lang = "en")
```

Arguments

apiKey	Key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientamount . If none is provided, the system environment variables will be checked.
foodCode	The code indicating the food you want to search for. If null, all foods and their corresponding yields are returned.
lang	The language to return results in, can be either 'en' or 'fr'.

Value

A tibble containing food names and food codes, yield amounts, and yield names.

Examples

```
## Not run:
get_yieldamount()
get_yieldamount(foodCode = 57)
get_yieldamount(foodCode = 57, lang = "fr")
## End(Not run)
```

`query_api`*query_api* Makes a query to the Canadian Nutrient Files API.

Description

`query_api` Makes a query to the Canadian Nutrient Files API.

Usage

```
query_api(path, apiKey = NULL, id = NULL, lang = "en")
```

Arguments

<code>path</code>	the path to the desired endpoint. (Should be one of <code>food</code> , <code>nutrientamount</code> , <code>nutrientgroup</code> , <code>nutrientname</code> , <code>nutrientsource</code> , <code>refuseamount</code> , <code>servingsize</code> , or <code>yieldamount</code> .)
<code>apiKey</code>	key to access the API. Can be retrieved from https://hc-sc.api.canada.ca/en/detail?api=cnf#!/Nutrient/get_nutrientamount . If none is provided, @seealso <code>get_key()</code> will check the system environments for one.
<code>id</code>	the id of what you're looking for. Meaning of the id changes depending on endpoint.
<code>lang</code>	the language you are using and want results returned in.

Value

a structure with the parsed text response, the raw response, the endpoint path, and the id.

References

Note that this function is based on, and repeats much of the code in the R API package best practices, available at <https://httr.r-lib.org/articles/api-packages.html#overall-design-1>.

Examples

```
## Not run:
query_api("food")
query_api("food", id = 2314)
query_api("nutrientgroup", id = 1)
query_api("nutrientname", id = 1)
query_api("nutrientsource", id = 82)
query_api("refuseamount", id = 2314)
query_api("servingsize", id = 2314)
query_api("yieldamount", id = 2314)

## End(Not run)
```

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