



# FNS – Cloud

Food Nutrition Security

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NEW – FINAL EVENT: Save the date!

## What we are doing?

FNS-Cloud will launch a first-generation ‘food cloud’, federating existing and emerging datasets and develop new services to support re-use by researchers.



## Home - FNS-Cloud

# FNS-Cloud Activities

Realising FNS-Cloud is organised into nine activities structured around technical implementation, use cases and demonstrators, which will test FNS-Cloud Services, and support, delivering dissemination and community engagement, training and governance. Others are management of the project and research ethics.

A square card with a light blue background and a subtle cloud pattern. It is set against a dark blue background with a network of glowing blue lines and dots, resembling a global map or data network.

## Project Coordination

[More Details](#)

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## Preparation of FNS-Cloud

[More Details](#)

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## Standardisation & Interoperability

[More Details](#)

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## Use Cases

[More Details](#)

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## Demonstrators

[More Details](#)

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## Dissemination

[More Details](#)

# Agri-food demonstrators Risk assessment –Total Diet Studies (TDS), Foods & Mixtures



## *Aim:*

- Deploy and test FNS Demonstrators for agri-food risk assessment using FNS-Cloud Services

## *Deliverable:*

- Develop demonstrator tools:
  - High-end users: **Monte Carlo Risk Assessment (MCRA) app** to assess exposure from Total Diet Study (TDS) data with consumption data from the Netherlands, Germany and Belgium
- Training and Cloud service for academia and industry



# FNS - Cloud

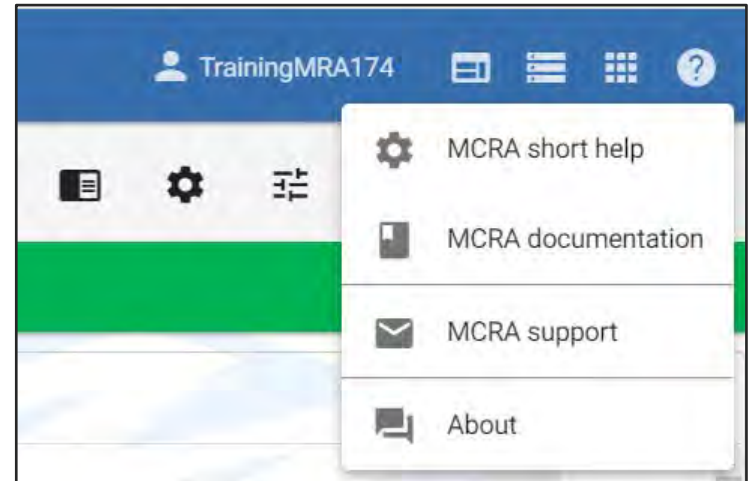
Food Nutrition Security

- Standardisation of TDS input data of three countries NL, DE and BE to ensure applicability in several countries
- Harmonized approach using codes and standard formats agreed by the European Food Safety Authority (EFSA) and EU Member States for food safety
- MCRA TDS Demonstrator available in the Azure cloud
- Training materials for users (community of practice)
- Contact MCRA



# Demonstrator and helpdesk

- Overview data formats and standard data templates can be downloaded
- More training materials for risk assessment
- Support might be organized in user groups (community of practice)
  - community of practice that might wish to work as TDS centres
  - user groups that might be interested for other reasons
- Interested in future trainings sent a mail to MCRA support or contact RIVM



# Content

Lecture 1: international interest in Total Diet Studies (TDS)

Lecture 2: risk assessment based on TDS data

Lecture 3: TDS applied in Belgium for training courses of students (community of practice)

Hands-on training: how MCRA is used in a harmonized TDS approach

# Lecture 1: international interest in Total Diet Studies



National Institute for Public Health  
and the Environment  
*Ministry of Health, Welfare and Sport*



GHENT  
UNIVERSITY



**BfR**

German Federal Institute for Risk Assessment



WAGENINGEN  
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# Content lecture 1

- What is a Total Diet Study?
- Why is it important at the international level?
- EU project TDS
- FNS-Cloud project





# EFSA – FAO – WHO guidance TDS



EFSA Journal 2011; 9(11):2450

## JOINT GUIDANCE OF EFSA, FAO AND WHO

### **Towards a harmonised Total Diet Study approach: a guidance document<sup>1</sup>**

**European Food Safety Authority (EFSA), Parma, Italy<sup>2, 3</sup>**

**Food and Agriculture Organization of the United Nations (FAO), Rome, Italy**

**World Health Organization (WHO), Geneva, Switzerland**

<https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2011.2450>

# EU funded project Total Diet Study

- Collaborative 4 –year research project
- Funded by European Commission within 7th Framework programme
- Conducted from 2012 – 2016
- Coordinator:  
French Agency for Food, Environmental and Occupational Health & Safety (ANSES)
- <http://www.tds-exposure.eu/>

# Objective: harmonisation

## Harmonization of TDS method

1. Preparation of Standard Operating Procedures (**SOPs**) to assure quality and consistency of TDS
2. Testing feasibility of SOPs in practice via a **pilot study**
3. Use of the same exposure assessment software to assess the exposure to several contaminants



# Standard Operating Procedures

**Preparation for food collection, sample preparation and analysis**

SOP  
01

**Food collection**

SOP  
02

**Reception of individual samples (at kitchen laboratory)**

SOP  
03

**Sample preparation (at kitchen / pre-analytical laboratory)**

SOP  
04

**Chemical analysis of laboratory samples**

SOP  
05

# Pilot study (1)

- By conducting a TDS in Czech Republic, Germany, Finland, Iceland and Portugal
- Based on the defined SOPs  
Slightly modified to reflect different conditions in countries: procedures were harmonized
- 2014-2015



# Fifth WHO-TDS workshop Seoul



Workshop report: [here](#)



# Workshop conclusions

## Conclusion:

- Harmonised food classification system such as the European FoodEx system is important
- MCRA was successfully used to calculate exposure levels and to produce comparable numeric and graphical output



# Total Diet Studies - 6th International Workshop in Berlin

Worldwide exchange on planning, implementation and experiences with TDS

The German Federal Institute for Risk Assessment (BfR) and the World Health Organization (WHO) hosted the "6th International Workshop on Total Diet Studies (TDS)" on 10 and 11 October 2022. At the conference, countries from all over the world presented results and latest developments in the field of TDS.

The event was preceded by a four-day online tutorial on planning and conducting these studies, organised by 20 representatives of countries, planning to conduct their own TDS in the future took part.





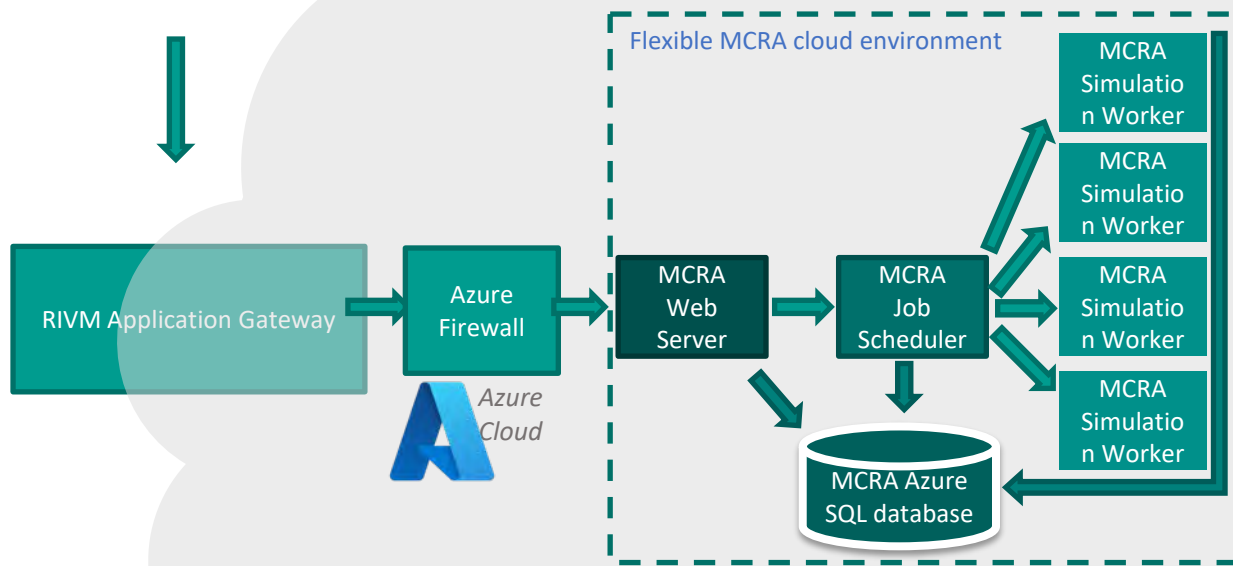
# FNS - Cloud

Food Nutrition Security

- WHO-BfR-TDS training was well received and participants (TDS centres) showed interest in community of practice using MCRA
- Training materials for teachers and academia (community of practice)
- MCRA TDS Demonstrator in the Azure cloud
  - How to deal with flexible use (e.g. class of students once a year)
  - Cloud resources

# MCRA cloud architecture and url

mcra-training.rivm.nl



# Overview MCRA in the Cloud



- Deliver a flexible MCRA environment for training purposes
- This MCRA environment can be set up and removed in a short time
- Training MCRA accounts are created automatically
- Can be used in training classes
- Use conditions to be agreed

# Lecture 3. TDS applied in Belgium for understanding exposure to Nickel



National Institute for Public Health  
and the Environment  
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## NICKEL ?

### Relevance of Nickel as potential food safety hazard ?

- A risk assessment of EFSA in 2015 stated that the occurrence of nickel in the diet is worrying for the general European population and for Ni-sensitive individuals (EFSA, 2015)



# Risk assessment

- Comparison of calculated exposure with TDI of 13  $\mu\text{g}/\text{kg}$  bw/day
- For children, adolescents and adults → no exceeding from the aforementioned reference value was observed.



# Hands-on training: how MCRA is used in a harmonized TDS approach



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and the Environment  
*Ministry of Health, Welfare and Sport*



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**BfR**

German Federal Institute for Risk Assessment



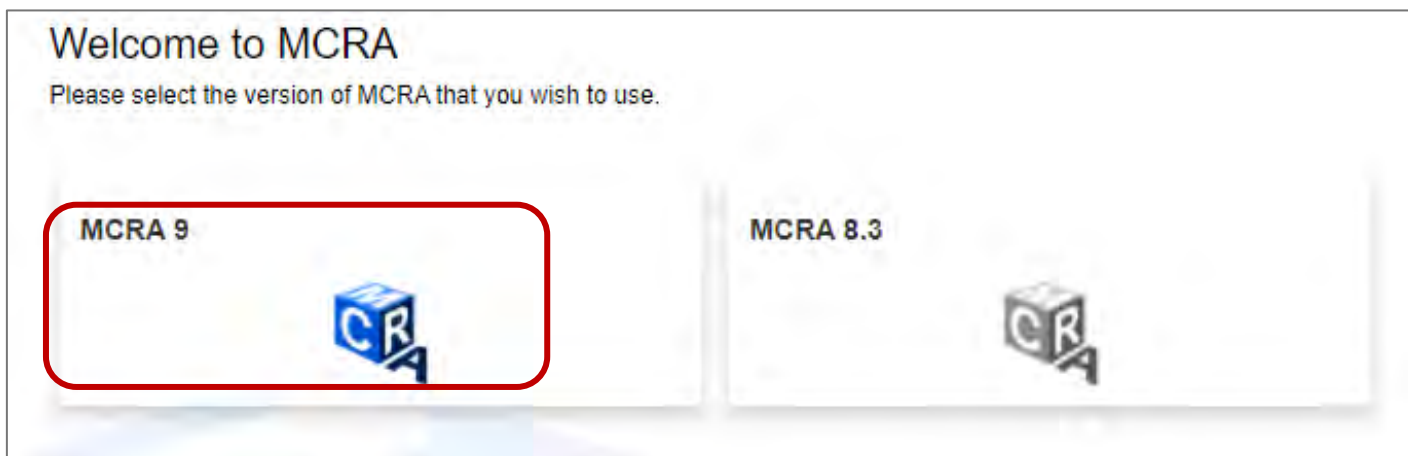
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# Learning goals


- Get familiar with MCRA
  - Create and run a standard action: TDS Belgium Nickel
  - Run a standard action: TDS Germany methyl mercury
  - Understand the output and use your own data
  - Upload your own data (e.g. TDS data from the Czech Republic)
  - Documentation

# MCRA

- [mcra.rivm.nl](https://mcra.rivm.nl)
- MCRA 9



# Opening page with short explanation




## Welcome to MCRA 9


Chemical exposure, hazard and risk assessment

On a daily basis, people are exposed to multiple chemicals via food intake, inhalation and dermal contact. The risk to human health resulting from this exposure depends on the effects of the different chemicals in the mixture and how they combine. MCRA stands for **Monte Carlo Risk Assessment**. It is a web-based platform containing various models that users can use to assess these health risks for specific populations in various scenarios.

In MCRA, more than 50 **modules** are available to address all major areas of risk assessment, including hazard identification, hazard characterisation, exposure assessment and risk assessment. MCRA contains models following the guidelines of the European Commission and the European Food Safety Authority (EFSA), and also includes novel scientific models that could improve or refine future risk assessment.


MCRA 9 was developed in **EU project EuroMix (2015-2019)** and in a **partnership between EFSA, RIVM and WUR (2015-2025)** to assess risks from combined exposure to multiple chemicals from multiple routes of exposure using deterministic or probabilistic methods.

 [MCRA documentation](#)

 [Publications and reports using MCRA](#)

## MCRA account

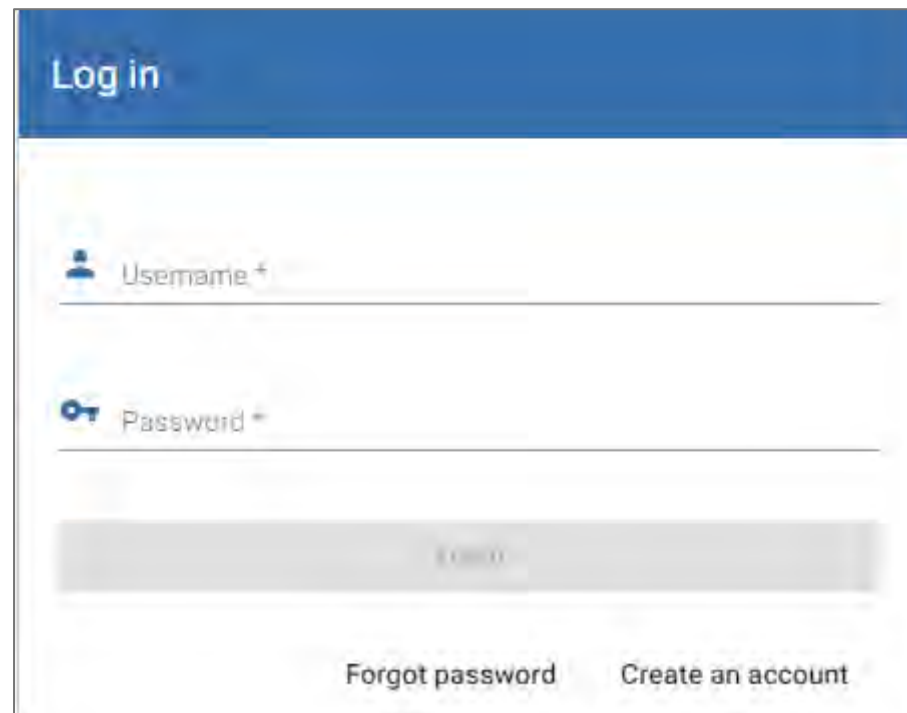
MCRA is available for registered stakeholders. An account can be requested by filling in the registration form.

 [Register for an account](#)

Do you already have an account? [Log in here](#)



# Login



The image shows a login form for FNS-Cloud. It has a blue header with the text "Log in". Below the header, there are two input fields: "Username" with a user icon and "Password" with a key icon. Both fields have a small asterisk indicating they are required. Below the password field is a grey "Log in" button. At the bottom, there are two links: "Forgot password" and "Create an account".

Log in

Username \*

Password \*

Log in

[Forgot password](#) [Create an account](#)

# Create workspace

- Select workspaces

## Using MCRA

You can specify your models, such as a dietary exposure assessment, within **actions** that are organised in **workspaces**. Each action is of a **module type** and contains selected data and settings. After specifying data and settings, the modelling task can be started. The output report contains concise sections of main results and detailed drilldown information.

The data used in the actions is organised in the **data repository**. Users have their own private data repository for uploading data. In addition, shared repository folders are available used for sharing data among user groups.

For more information on using MCRA consult the [documentation pages](#).



Workspaces




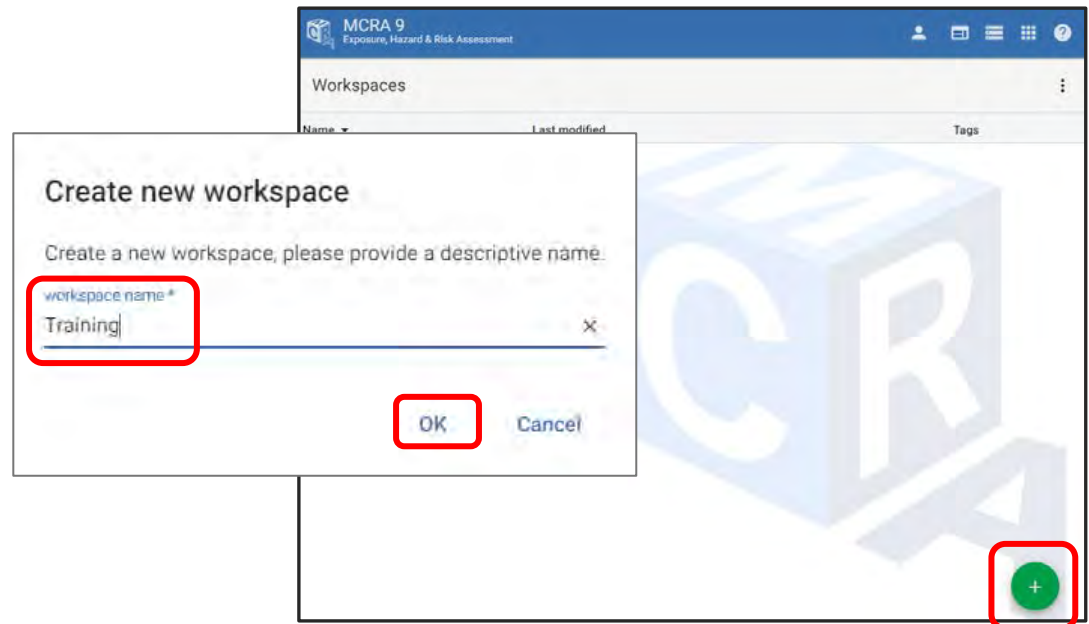
Data

Contact MCRA Support, National Institute for Public Health and the Environment (RIVM).

MCRA is developed by Wageningen University & Research, Biometris for RIVM and EFSA (2007 - 2023)

# Create workspace (2)

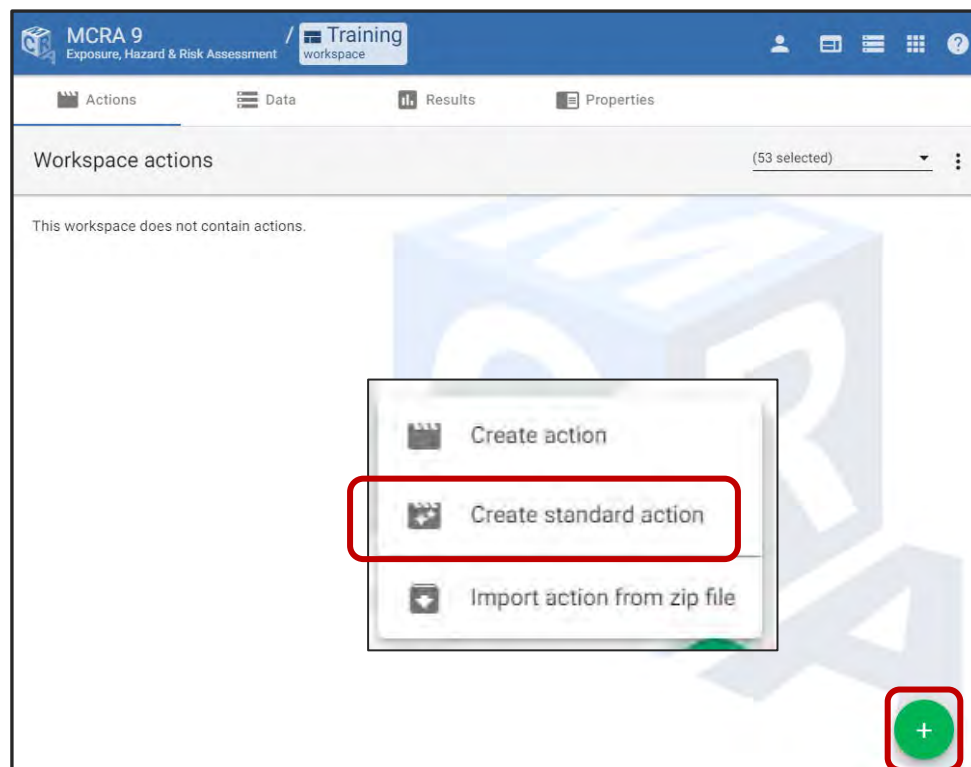
- Create workspace by clicking 
- Give the workspace a name and click on 'OK'



# Create standard action (1)

Create a standard action by clicking 

Select create standard action




# Create standard action (2)

Select 'TDS-based long term dietary exposure and risk assessment'

Create new standard action

Select standard action type

 **TDS-based long term dietary exposure and risk assessment**  
This standard action can be used to calculate a chronic dietary exposure and risk assessment using Total Diet Study (TDS) data.

# Create standard action (3)

Select 'Create'

Create new standard action

×

Specify name/description

General

Name

TDS-based long term dietary exposure and risk assessment

Tags

Description

Back

Create

# Inspect settings

- Select TDS Nickel BE Population 2014
- Press **Save Changes**

**TDS-based long term dietary exposure and risk assessment**

This standard action can be used to calculate a chronic dietary exposure and risk assessment using Total Diet Study (TDS) data.

[Go to documentation](#)

---

**Assessment settings**

Total diet study

TDS Nickel BE Population 2014

TDS DON NL Children 2016

TDS demo MeHg DE Children 2001-2002

TDS Nickel BE Population 2014

AgeGroup

General population

☐ Restrict population to consumers only

Censored value handling method

By zero (lower bound)

By zero (lower bound)

By limit of reporting (upper bound)

Uncertainty analysis

No uncertainty analysis

No uncertainty analysis

Uncertainty analysis: 10 bootstrap cycles of 10.000 Monte Carlo iterations (for testing / demo)

Uncertainty analysis: 100 bootstrap cycles of 100.000 Monte Carlo iterations

**Save Changes**

# Navigation pane exercise

- Go to 'Settings'
- Go to 'Results'
- Run an action

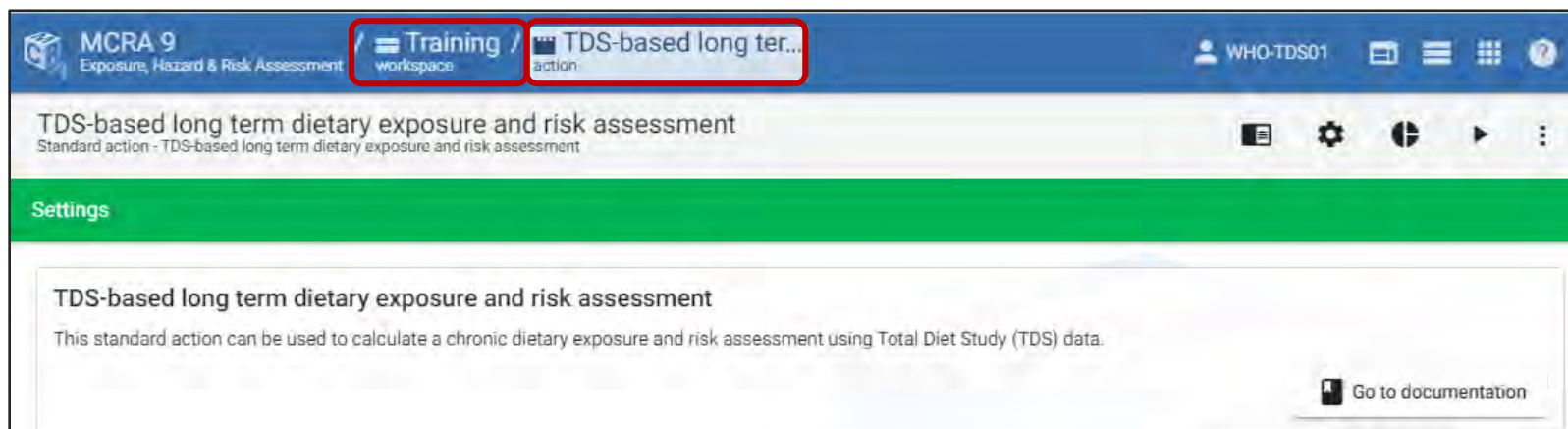


The screenshot shows the FNS-Cloud interface. At the top, there is a blue header bar with the MCRA 9 logo, navigation tabs for 'Training' (workspace) and 'TDS-based long ter...' (action), and a user profile 'WHO-TDS01'. Below the header, the main content area is titled 'TDS-based long term dietary exposure and risk assessment' with a subtitle 'Standard action - TDS-based long term dietary exposure and risk assessment'. On the right side of this title bar, there are three icons: a list icon, a settings icon (gear), and a results icon (pie chart), all of which are highlighted with red rectangles. Below this is a green bar labeled 'Settings'. The main content area under 'Settings' contains the title 'TDS-based long term dietary exposure and risk assessment' and a description: 'This standard action can be used to calculate a chronic dietary exposure and risk assessment using Total Diet Study (TDS) data.' There is a 'Go to documentation' button on the right. Below this is a section titled 'Assessment settings' with a dropdown menu showing 'TDS DON NL Children 2016' and a 'Save Changes' button.



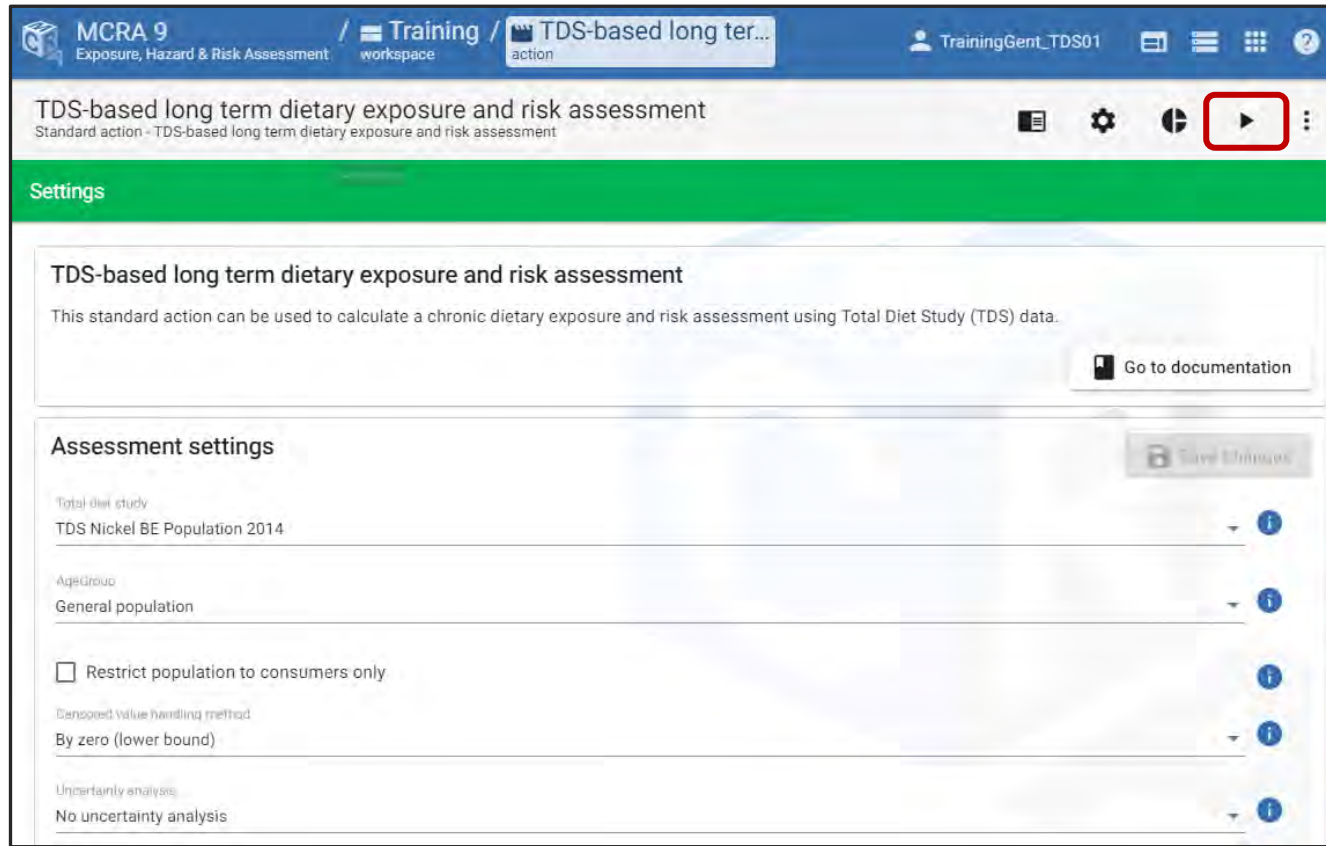
# Navigation pane exercise

- Go to 'action'
- Go to 'Workspace'
- Go to action again



# Press run

Press run 



MCRA 9 Exposure, Hazard & Risk Assessment / Training / workspace / TDS-based long ter... action TrainingGent\_TDS01

TDS-based long term dietary exposure and risk assessment  
Standard action - TDS-based long term dietary exposure and risk assessment

Settings

**TDS-based long term dietary exposure and risk assessment**  
This standard action can be used to calculate a chronic dietary exposure and risk assessment using Total Diet Study (TDS) data.  
[Go to documentation](#)

**Assessment settings** [Save changes](#)

Total diet study  
TDS Nickel BE Population 2014

Age group  
General population

☐ Restrict population to consumers only

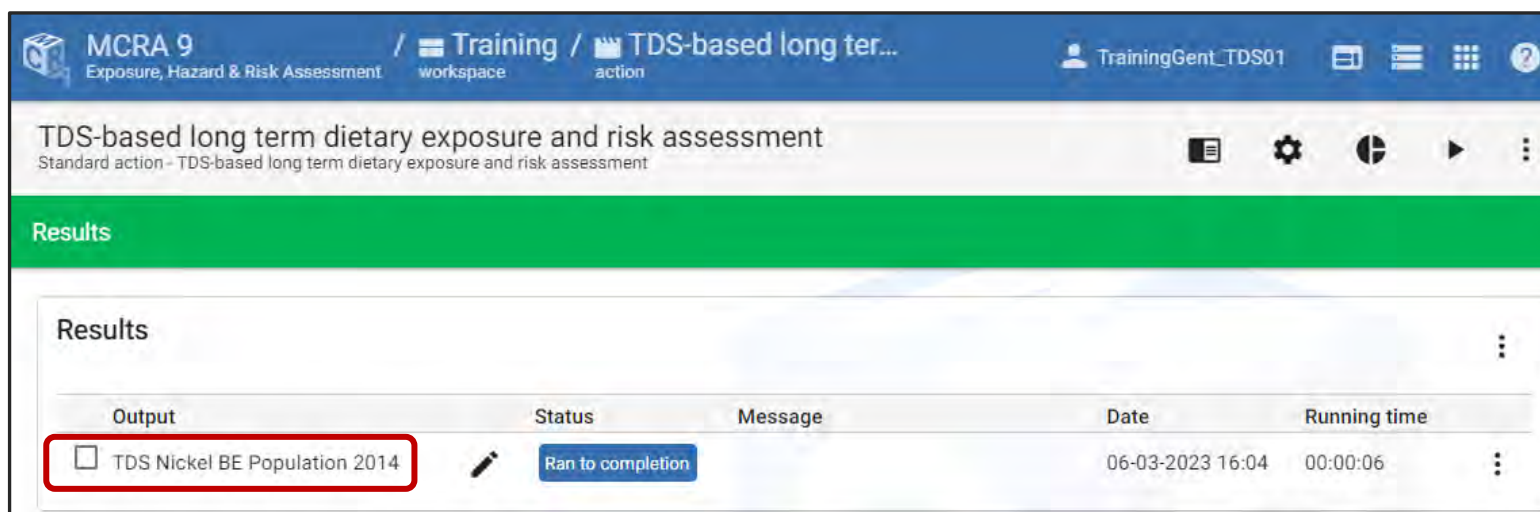
Censored value handling method  
By zero (lower bound)

Uncertainty analysis  
No uncertainty analysis

# Wait for completion and open the report

Wait until the job has finished · [Ran to completion](#)

Open report by clicking on the name of the output



MCRA 9  
Exposure, Hazard & Risk Assessment / Training / TDS-based long ter...  
workspace action TrainingGent\_TDS01

TDS-based long term dietary exposure and risk assessment  
Standard action - TDS-based long term dietary exposure and risk assessment

Results

Results

Output	Status	Message	Date	Running time
<input type="checkbox"/> TDS Nickel BE Population 2014	<a href="#">Ran to completion</a>		06-03-2023 16:04	00:00:06

# Browse through the report

- Browse through the report

The screenshot displays the MCRA 9 web interface. The top navigation bar includes 'MCRA 9 Exposure, Hazard & Risk Assessment', 'Training / workspace', and 'TDS-based long ter... action'. The user is logged in as 'TrainingGent\_TDS01'. The main title is 'TDS-based long term dietary exposure and risk assessment' with a subtitle 'Standard action - TDS-based long term dietary exposure and risk assessment'. A green banner indicates 'Results / TDS Nickel BE Population 2014' with a 'Show detailed report' link. The 'Results' tab is active, showing a collapsible tree with 'Results chronic risk assessment' and 'Settings'. The 'Settings' section contains a table of parameters and their values.

Setting name	Value
Total diet study	TDS Nickel BE Population 2014
AgeGroup	General population
Restrict population to consumers only	False
Censored value handling method	By zero (lower bound)
Uncertainty analysis	No uncertainty analysis

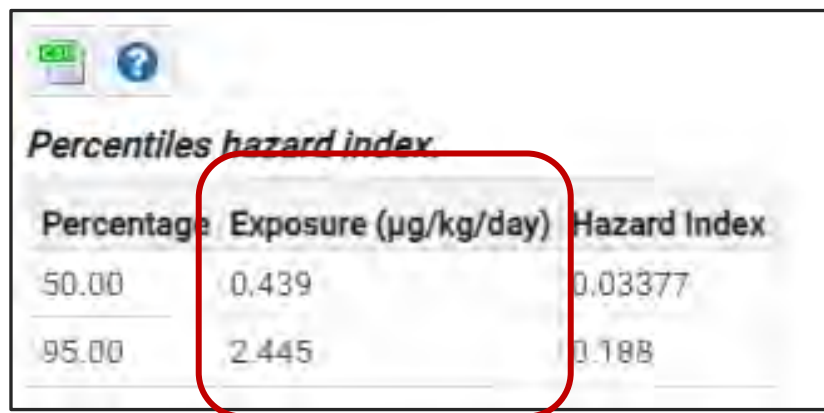
Below the settings, there are sections for 'Exposures and risks' and 'Percentiles'. The 'Percentiles' section contains a table with the following data:

Reference substance	Nickel (Ni) (RF-00000182-CHE)
Hazard characterisation (µg/kg/day)	13
Mean exposure (µg/kg/day)	0.742

# Exercise E1

- Report the exposure at the 50- and 95-percentile.
- Which foods are contributing most to the dietary exposure?

# Exposure at p50- and p95



*Percentiles hazard index*

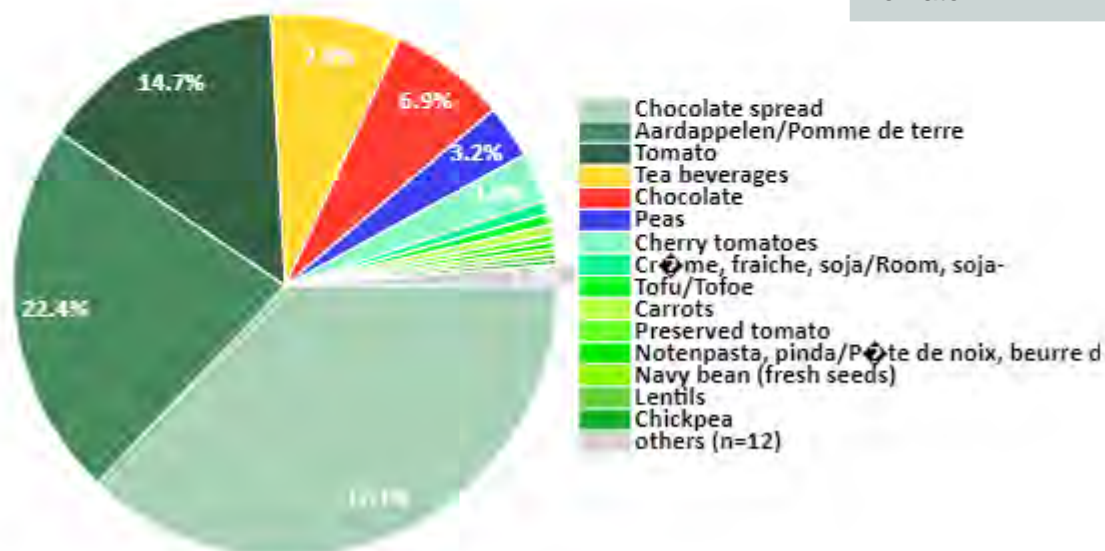
Percentage	Exposure (µg/kg/day)	Hazard Index
50.00	0.439	0.03377
95.00	2.445	0.188

# Foods contributing the most

## ✓ Exposures by modelled food (total distribution)

Total 37 modelled foods.

*Contribution to total exposure distribution for modelled foods.*



Food	Contribution (%)
Chocolate spread	37.1
Aardappelen/pomme de terre	22.4
Tomato	14.7



# TDS Germany

- Go to Settings



The screenshot shows the MCRA 9 software interface. The top navigation bar includes 'MCRA 9 Exposure, Hazard & Risk Assessment', 'Training / workspace', and 'TDS-based long ter... action'. The user is logged in as 'TrainingGent\_TDS01'. The main title is 'TDS-based long term dietary exposure and risk assessment' with a subtitle 'Standard action - TDS-based long term dietary exposure and risk assessment'. A green banner indicates 'Results / TDS Nickel BE Population 2014' with a 'Show detailed report' link. The 'Settings' tab is selected, showing a table of settings.

Setting name	Value
Total diet study	TDS Nickel BE Population 2014
AgeGroup	General population



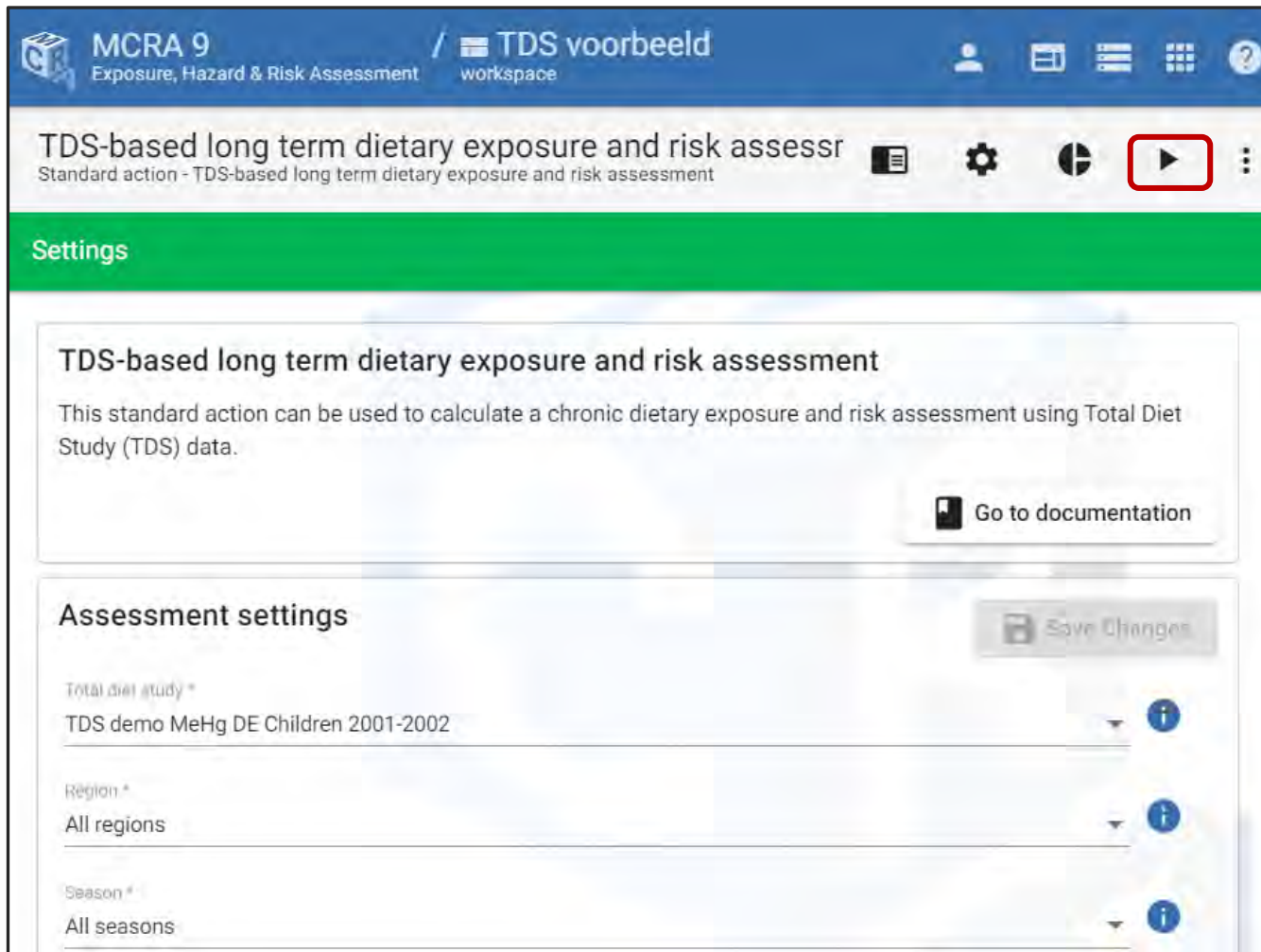
# Inspect settings

- Select TDS demo MeHg DE Children 2001-2002
- Press **Save Changes**

The screenshot shows the MCRA 9 software interface. The top navigation bar includes 'MCRA 9 Exposure, Hazard & Risk Assessment', 'Training workspace', and 'TDS-based long term dietary exposure and risk assessment'. The main title is 'TDS-based long term dietary exposure and risk assessment' with a subtitle 'Standard action - TDS-based long term dietary exposure and risk assessment'. Below this is a green 'Settings' header. The main content area is titled 'TDS-based long term dietary exposure and risk assessment' and includes a description: 'This standard action can be used to calculate a chronic dietary exposure and risk assessment using Total Diet Study (TDS) data.' A 'Go to documentation' link is present. The 'Assessment settings' section is expanded, showing a dropdown menu with three options: 'TDS DON NL Children 2016', 'TDS demo MeHg DE Children 2001-2002' (highlighted with a red box), and 'TDS Nickel BE Population 2014'. Below the dropdown, there are checkboxes for 'Restrict population to consumers only' (unchecked), 'Censored value handling method' (set to 'By zero (lower bound)'), and 'Uncertainty analysis' (set to 'No uncertainty analysis'). A red box highlights the 'Save Changes' button in the bottom right corner.

# Press run

Press run 



**MCRA 9** Exposure, Hazard & Risk Assessment / **TDS voorbeeld** workspace

**TDS-based long term dietary exposure and risk assessment**  
Standard action - TDS-based long term dietary exposure and risk assessment

**Settings**

**TDS-based long term dietary exposure and risk assessment**  
This standard action can be used to calculate a chronic dietary exposure and risk assessment using Total Diet Study (TDS) data.

[Go to documentation](#)

**Assessment settings**

Total diet study \*  
TDS demo MeHg DE Children 2001-2002

Region \*  
All regions

Season \*  
All seasons

[Save Changes](#)

# Wait for completion and open the report

Wait until the job has finished →

Ran to completion

Open report by clicking on the name of the output

The screenshot shows the MCRA 9 TDS workspace interface. The top navigation bar includes the MCRA 9 logo, the text 'Exposure, Hazard & Risk Assessment', and the workspace name 'TDS voorbeeld'. Below this, the title 'TDS-based long term dietary exposure and risk assessment' is displayed. A green 'Results' header is present. The main content area shows a table of results with a search bar and a list of outputs. The output 'TDS demo MeHg DE Children 2001-2002 (Conventional)' is highlighted with a red box, and its status is 'Ran to completion'.

Output	Status
<input type="checkbox"/> TDS Nickel BE Population 2014	Ran to completion
<input type="checkbox"/> TDS demo MeHg DE Children 2001-2002 (Conventional)	Ran to completion

# Browse through the report

The screenshot shows the MCRA 9 software interface. The top blue header bar contains the MCRA 9 logo, the text 'Exposure, Hazard & Risk Assessment', and the workspace name 'TDS voorbeeld'. To the right of the header are icons for user profile, workspace, settings, and help. Below the header, the main title 'TDS-based long term dietary exposure and risk assessment' is displayed, followed by the subtitle 'Standard action - TDS-based long term dietary exposure and risk assessment'. A green navigation bar shows the current path 'Results / TDS demo MeHg DE Children 2001-2002 (Conventional)' and a 'Show detailed report' link. The main content area has two tabs: 'Results' (selected) and 'Settings'. Under the 'Results' tab, there are two expandable sections: 'Results chronic risk assessment' and 'Settings'. The 'Settings' section is expanded, showing a table of settings.

Setting name	Value
Total diet study	TDS demo MeHg DE Children 2001-2002
Region	All regions
Season	All seasons

# Exercise E2

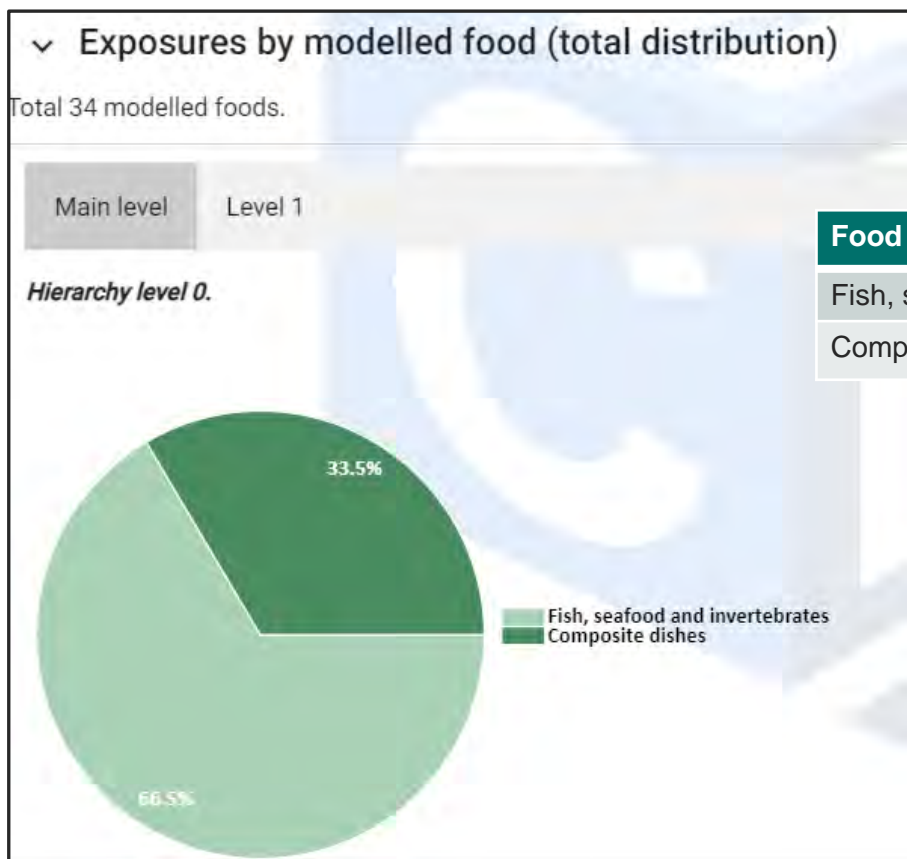
- Report the exposure at the 50- and 95-percentile.
- Which foods are contributing most to the dietary exposure at the main level?
- Which foods are contributing most to the dietary exposure at level 1?

# Exposure at p50- and p95

*Percentiles hazard index.*

Percentage	Exposure ( $\mu\text{g/kg/day}$ )	Hazard Index
50,00	0	0
95,00	0.02651	0.1427

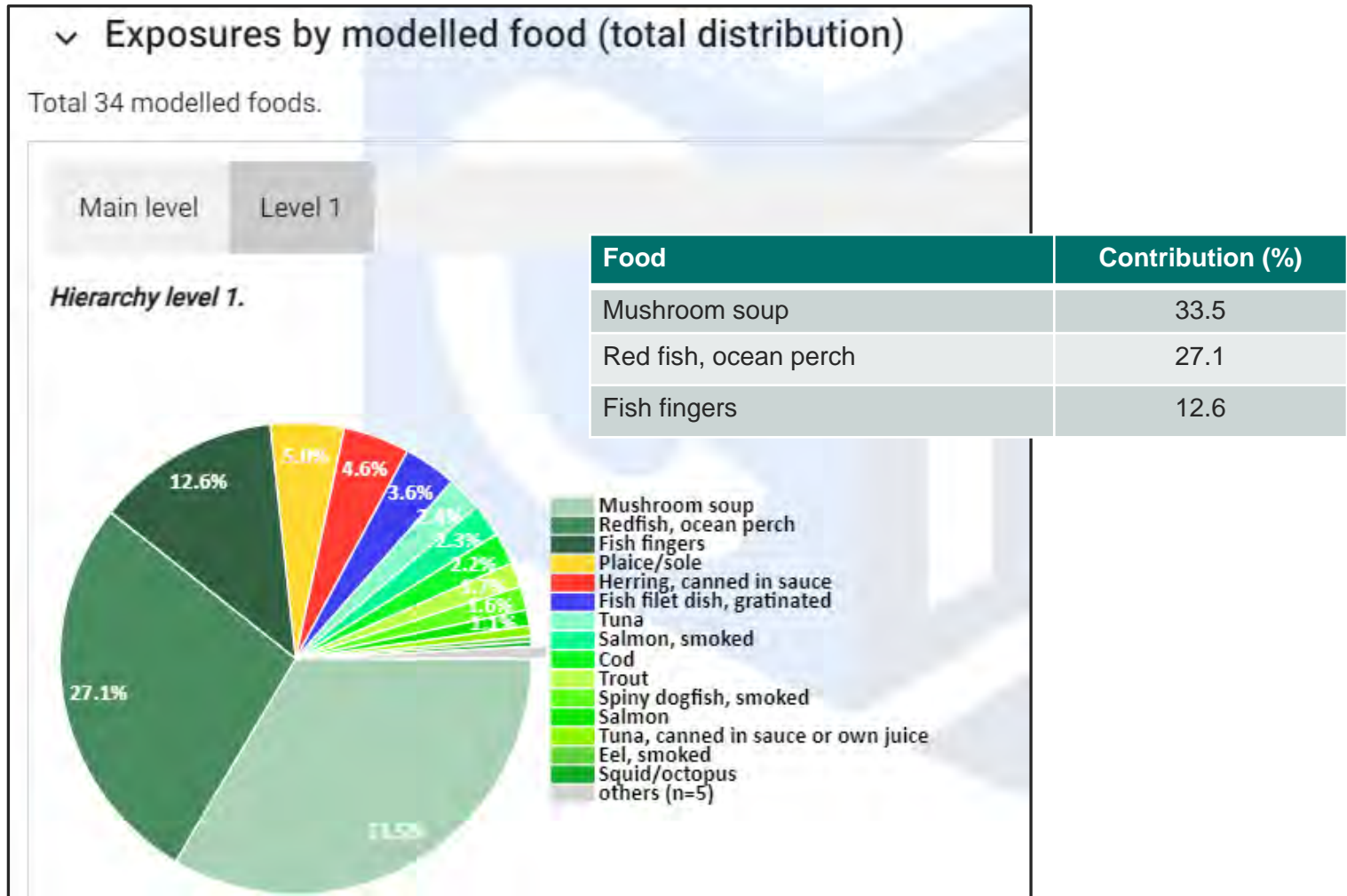
# Foods contributing the most at main level



Food	Contribution (%)
Fish, seafood and invertebrates	66.5
Composite dishes	33.5



# Foods contributing the most at level 1



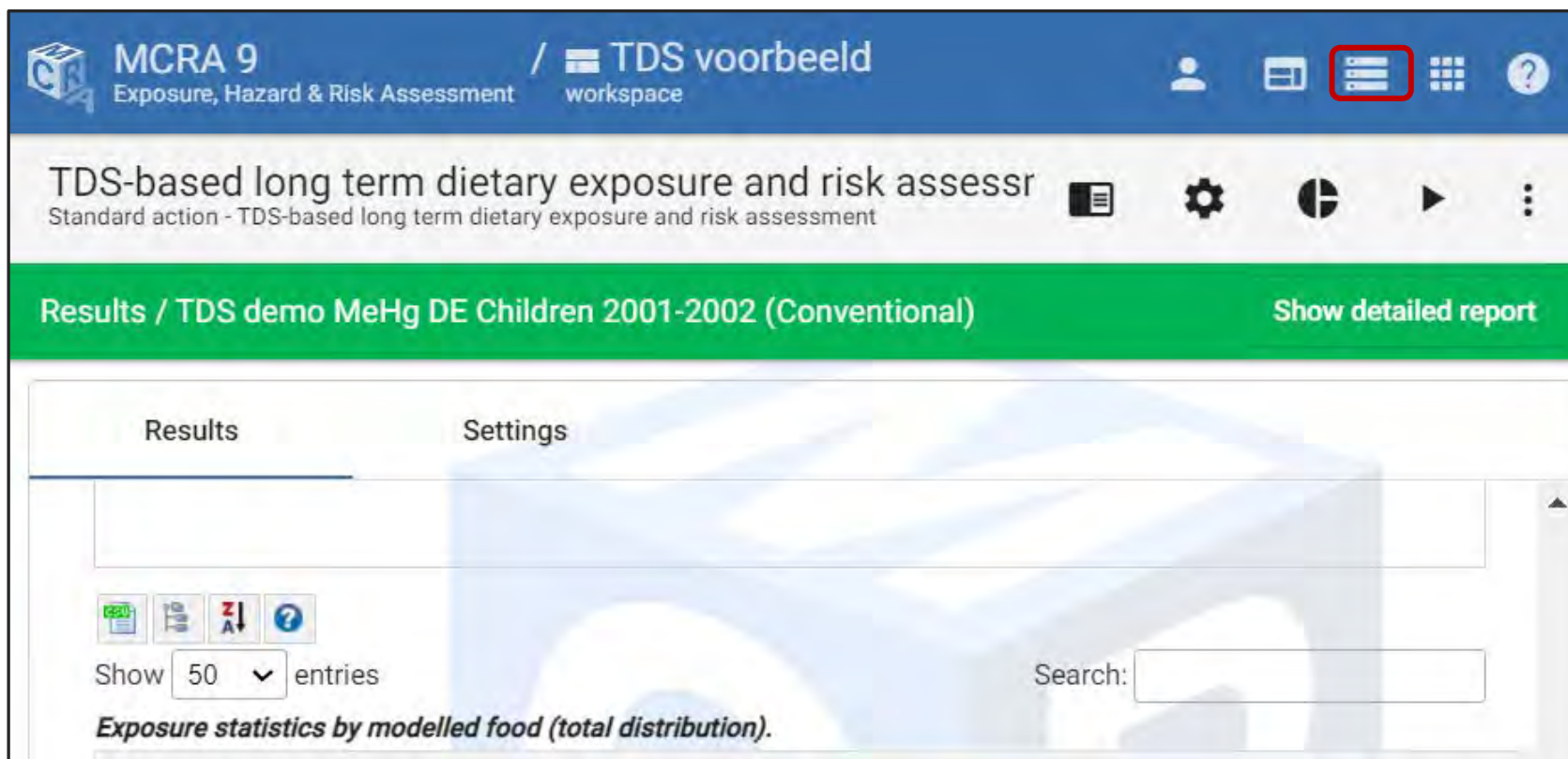


# Upload own data

- > It is possible to organize your own TDS data in the standard formats (relevant for TDS centers)
- > Use standard templates as agreed with the European Food Safety Authority (EFSA)
- > Follow-up training for TDS centers on how to upload data to MCRA, if you are interested mail to MCRA support
- > More functionalities for analyzing TDS data available in MCRA in full actions


# Upload own data (1)

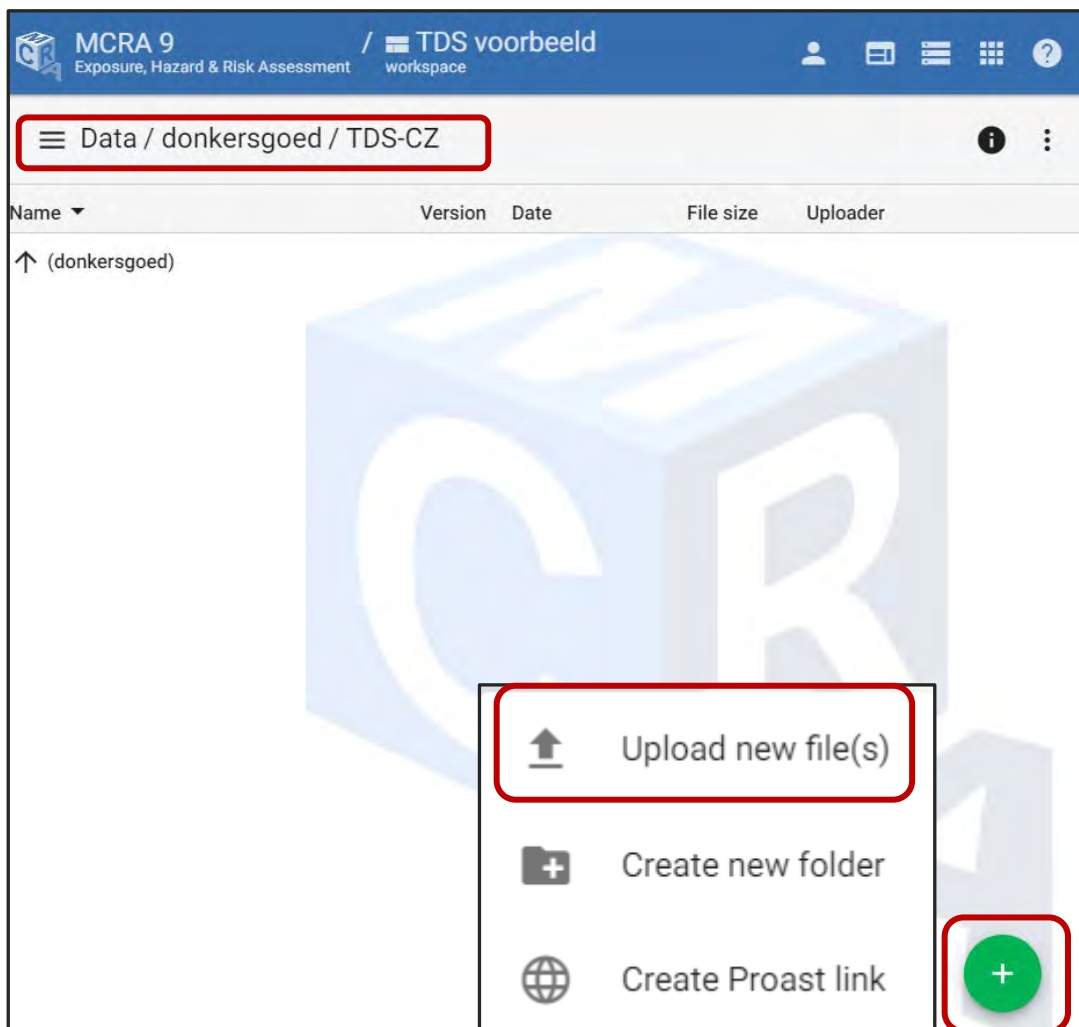
- Select data



The screenshot displays the MCRA 9 TDS workspace interface. The top navigation bar is blue and contains the MCRA 9 logo, the text 'Exposure, Hazard & Risk Assessment', and the workspace name 'TDS voorbeeld'. A red box highlights the 'Data' icon (a document with a list) in the top right corner. Below the navigation bar, the main content area shows the title 'TDS-based long term dietary exposure and risk assessment' and a subtitle 'Standard action - TDS-based long term dietary exposure and risk assessment'. A green banner below this indicates the current results: 'Results / TDS demo MeHg DE Children 2001-2002 (Conventional)' with a 'Show detailed report' link. The 'Results' tab is selected, showing a large empty box for data visualization. Below this, there are icons for 'Data', 'Settings', and 'Help', a 'Show 50 entries' dropdown, and a 'Search:' input field. The text 'Exposure statistics by modelled food (total distribution)' is visible at the bottom of the results section.

# Upload own data (2)

- Browse to folder where you want to upload your data data
- Click on 
- Select Upload new file(s)
- Browse on your PC to the location where you stored your own data file



# Clone to full action


The screenshot displays the MCRA 9 TDS voorbeeld workspace. The top navigation bar includes the MCRA 9 logo, the text 'Exposure, Hazard & Risk Assessment', and the workspace name 'TDS voorbeeld workspace'. Below this, the main title is 'TDS-based long term dietary exposure and risk assessment', with a subtitle 'Standard action - TDS-based long term dietary exposure and risk assessment'. A green 'Settings' button is visible on the left. The main content area shows the title 'TDS-based long term dietary exposure and risk' and a description: 'This standard action can be used to calculate a chronic dietary Study (TDS) data.' Below this is the 'Assessment settings' section, which includes a 'Total diet study' dropdown menu currently set to 'TDS demo MeHg DE Children 2001-2002'. On the right side, a menu is open, listing several actions: 'Edit metadata', 'Download action (no data)', 'Download action + data (data as zipped cs...', 'Download action + data (original data files)', 'Convert to full action', 'Clone to full action' (highlighted with a red box), and 'Refresh'.

# Use your own data

Browse data sources

≡ Data / donkersgoed / TDS-CZ

i

Name ▾	Version	Date	File size	Uploader
↑ (donkersgoed)				
 Czech data-9Groups-230329.mdb	1	29-03-2023 14:56	4.1 MB	donkersgoed

Selected: Czech data-9Groups-230329.mdb

Data groups: ☐ Toggle single ☒ Toggle all

Foods

Consumptions

Effects

Focal commodity concentrations

Concentration data

Substances

Total diet study data

Food extrapolation rules

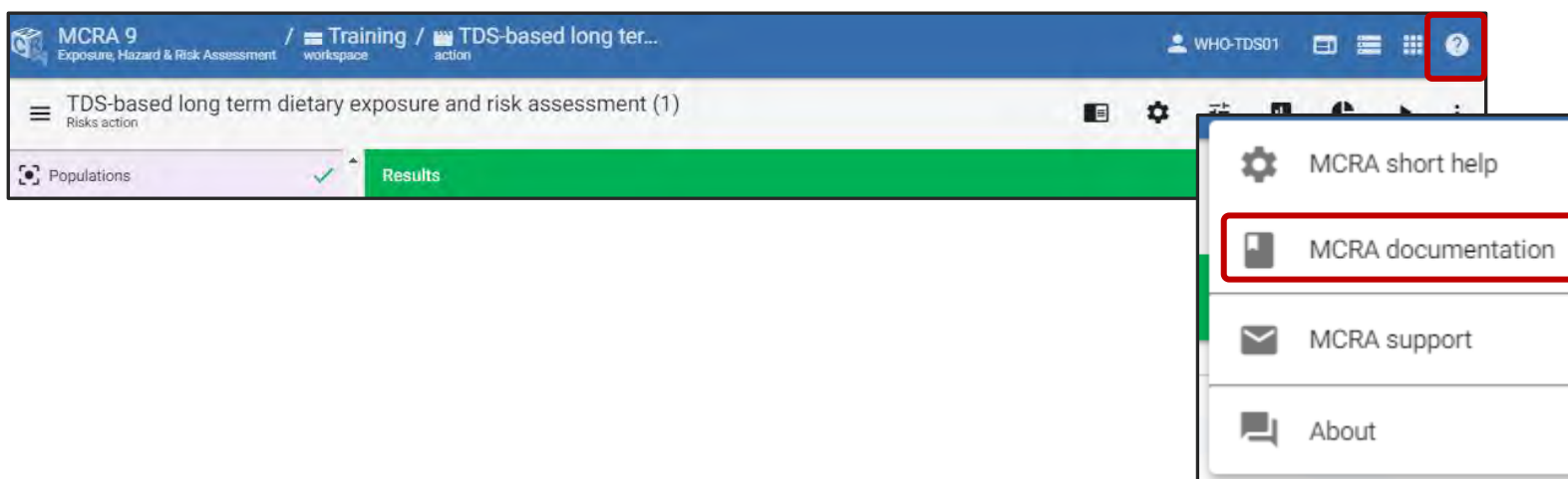
Hazard characterisations

Select

Cancel


# MCRA Documentation (1)

- By clicking on ? you can go to the MCRA documentation.





# MCRA documentation (2)


 **MCRA Documentation**  
Download as PDF

**USER GUIDE**  
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MCRA 9.1.48  
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## MCRA documentation

Reference and user manual for MCRA 9 (version 9.1.48).

### User guide

- [Introduction to MCRA](#)
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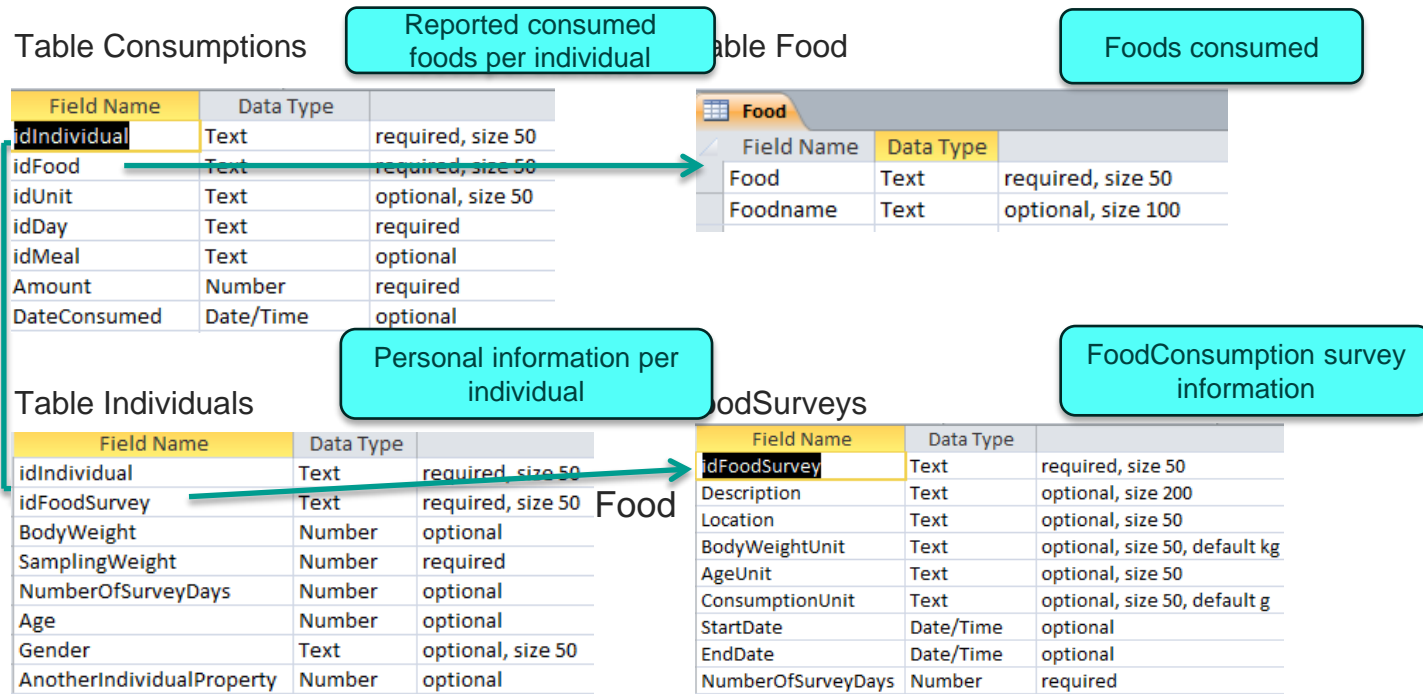
### Reference Manual

- [Modules](#)
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# Consumptions - format





# Catalogues - Foods

## Table Foods (format)

Field Name	Data Type	
idFood	Text	required, size 50
Name	Text	required, size 100

## Table Foods (example)

A026F	Beerwurst
A00QG	Beetroots
A00AJ	Beignets
A01DT	Berries and small fruits
MENG.CRAC.12-18	beschuit, knackebrod
A01FE	Bilberries (generic)
A00AE	Biscuit with inclusions, filling or coating
A009V	Biscuits
MENG.KOEK.24-36	Biscuits
A00AB	Biscuits, oat meal
A03RA	Biscuits, rusks and cookies for child
A009X	Biscuits, sweet, plain
A00AA	Biscuits, sweet, wheat wholemeal
A034G	Bitter chocolate

The foods table is the main table of the food definitions. Includes all food codes present in Consumptions, ConcentrationsSSD, TDSFoodSampleComposition, FoodCompositions, ReadAcrossFoodTranslations, FoodHierarchy

## 2. Concentrations - format

Table ConcentrationsSSD

Field Name	Data Type
labSampCode	Short Text
labSubSampCode	Short Text
sampCountry	Short Text
prodCode	Short Text
sampY	Number
sampM	Number
sampD	Number
analysisY	Number
analysisM	Number
analysisD	Number
paramCode	Short Text
resUnit	Short Text
resLOD	Number
resLOQ	Number
resVal	Number
resType	Short Text

composi

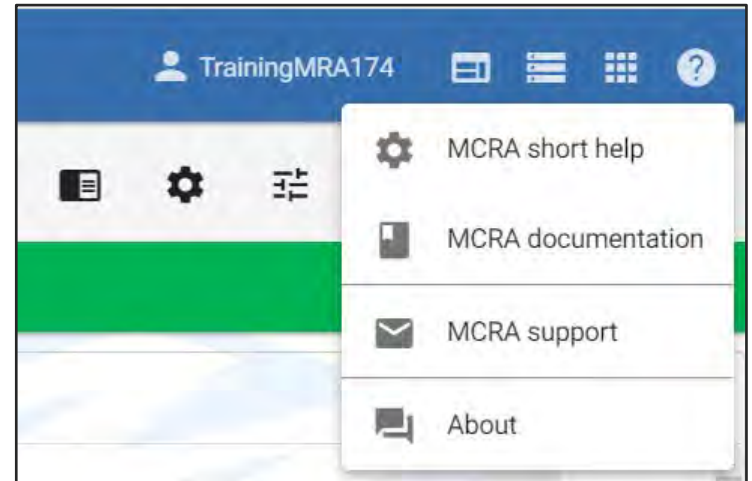
Field Name	Data Type
idTDSFood	Short Text
idFood	Short Text
PooledAmount	Number

The TDS food sample compositions table contains the descriptions of the TDS samples and specifications of the foods (with amounts) included in the TDS samples.

Concentrations data are analytical measurements of chemical substances occurring in food samples.

# Demonstrator and helpdesk

- Overview data formats and standard data templates can be downloaded
- More training materials for risk assessment
- Support might be organized in user groups
  - community of practice that might wish to work as TDS centres
  - user groups that might be interested for other reasons
- Interested in future trainings sent a mail to MCRA support or contact RIVM





Thank you for your  
attention!