



***rivm***

National Institute  
for Public Health  
and the Environment

# Fact sheets and database for ConsExpo

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# Exposure assessment of consumer products

- Large number of consumer products
  - No exposure assessment of each individual product
- Consumer product in ConsExpo
  - Which model
  - Which parameter values
- Fact sheets

# Factsheets

- Collection of input parameters for ConsExpo
- For different product categories and subcategories

# Categories & Subcategories

Category	Subcategory
Cleaning products	All purpose cleaners Dish washing Shoe cleaners
Paint products	Aerosol paints Water based paints Varnish Paint remover
Do-It-Yourself products	Floor covering adhesives Paper adhesive Wood adhesive Rubber adhesive

# Contents of a factsheet?

- Products are grouped according to their exposure characteristics
- All relevant information needed for exposure assessment
  - Use, general composition, remarks etc
- For all subcategories:

Default models with default parameters



Aim: to describe use of all products within a subcategory using standard models and parameters

# Example: pest control products

- Sprays
  - Targeted spot-application (aerosol can and trigger spray)
  - Crack and crevice application (aerosol can and trigger spray)
  - General surface application (aerosol can and trigger spray)
  - Air space application (aerosol can)
- Evaporation from strips and cassettes
- Electric evaporation
- Insect repellents
- Baits
- Dusting powders
- Textile biocides
- Foggers

# Default values air space application with an aerosol can

	Default value	Q	References, comments
<i>General</i>			
Frequency	90 year <sup>-1</sup>	3	See § 2.2.1
<b>Inhalation</b>			
<i>Exposure, spray model</i>			
Spray duration	0.33 min	3	See above
Exposure duration	240 min	3	See above
Room volume	58 m <sup>3</sup>	4	See above
Room height	2.5 m	4	Standard room height
Ventilation rate	0.5 hr <sup>-1</sup>	3	See above
Evaporation solvent	immediate		See § 2.2.3
Mass generation rate	0.35 g/s	3	See above
Airborne fraction	1 g/g	3	See § 2.2.3
Weight fraction propellant	0.6 g/g	3	See § 2.2.4
Initial particle distribution			
Median (C.V.)	20 µm (0.4)	3	See § 2.2.3
Inhalation cut-off diameter	15 µm		See § 2.2.3
<b>Dermal</b>			
<i>Exposure, constant rate</i>			
Contact rate	269 mg/min	2	See § 2.2.5
Release duration	0.33 min	3	I.e. spray duration

# Quality of parameter values (Q-Value)

- 4 : Good quality data, parameter value reliable
- 3 : Number and quality of the data satisfactory, parameter value usable as default value
- 2 : Single data source supplemented with expert judgment, parameter value is doubtful
- 1 : No relevant data , parameter value only based on expert judgement






# Boundary Conditions

- Aim:
  - Risk assessment
- Default parameters
  - 25 or 75 percentile
- Resulting value
  - About 99 percentile

**ConsExpo 4.00**


File Help


**rivm** Research for man and environment  
Rijksinstituut voor Volksgezondheid en Milieu

**Product & Compound**


Product


 Compound


**Exposure Scenario** defaults database


 General Scenario Data


**Exposure Routes**


**Inhalation** 


 Exposure


 Uptake


**Dermal** 

 Exposure


 Uptake


**Oral** 


 Exposure


 Uptake

**Output**

 Point values

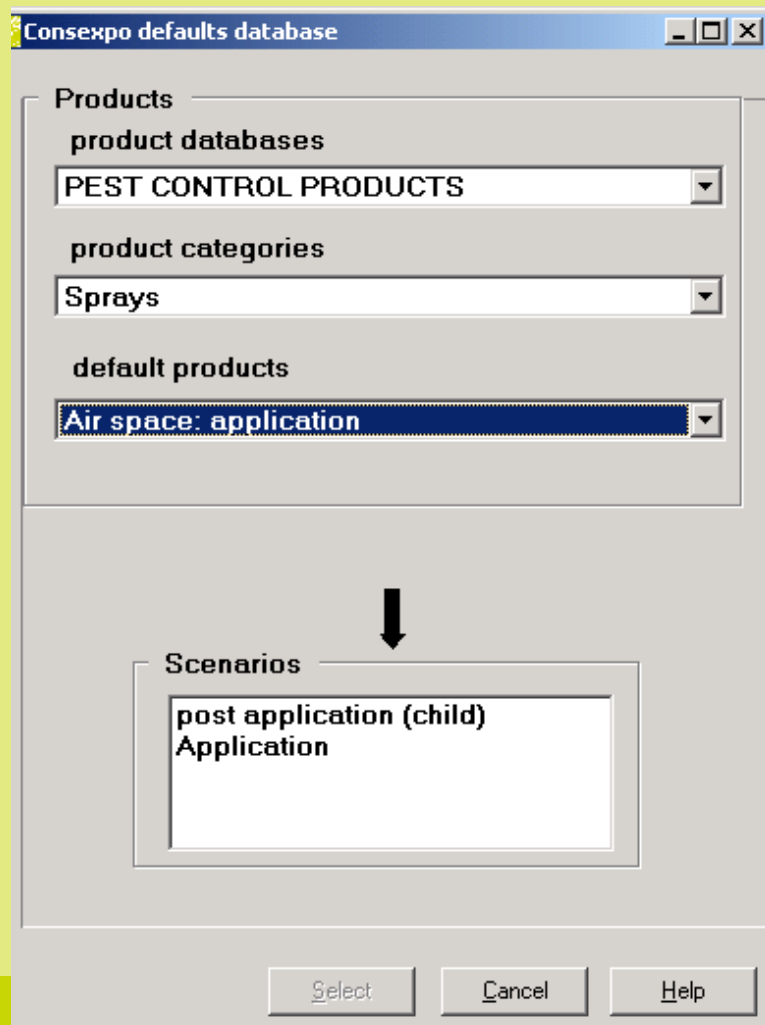
 Graphs

 Sensitivity

 Distributions

Taskbar: R:\Project\3... ConsExpo 4... untitled - Paint Presentation1 Fact sheets.... NL

# Product database



The screenshot shows a software window titled "Consexpo defaults database". It contains two main sections: "Products" and "Scenarios".

**Products section:**

- product databases:** A dropdown menu with "PEST CONTROL PRODUCTS" selected.
- product categories:** A dropdown menu with "Sprays" selected.
- default products:** A dropdown menu with "Air space: application" selected.

**Scenarios section:**

A large downward arrow points from the "Products" section to the "Scenarios" section. The "Scenarios" section contains a list box with the following items:

- post application (child)
- Application

At the bottom of the window are three buttons: "Select", "Cancel", and "Help".

# Fact sheets for ConsExpo

- Pest control products
- Cosmetics
- Cleaning products
- Disinfectants
- General
- Paint products
- Do-it-yourself products

## Fact sheets (and ConsExpo model)

- <http://www.rivm.nl/consexpo>

# The use of the fact sheets in ConsExpo

## Advantages of having the fact sheets

- We can answer questions about risk of consumer products very fast
  - Ministry of Health
  - Calculate the exposure with ConsExpo and compare the results with toxicological data
- Standardisation
  - Board for the Authorisation of Plant Protection Products and Biocides