SimaPro Synergy & SimaPro Online Platform | Data Release - Professional 10.2

User Documentation

SimaPro

Title:	SimaPro Synergy & SimaPro Online Platform | Data Release - Professional 10.2 User Documentation
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About SimaPro

SimaPro was developed by PRé with the goal of making sustainability a fact-based endeavor. PRé has been a leading voice in sustainability metrics and life cycle thinking development for more than 30 years, pioneering the field of environmental and social impact assessment. We develop tools that help you create value and drive sustainable change.

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1 Introduction

This document describes the changes to the data on SimaPro Synergy as well as the SimaPro Online Platform with the August 2025 data release. The aim of this release is to align the data libraries, impact assessment methods and substances with the SimaPro Craft 10.1 and 10.2 desktop releases. Nevertheless, please note that USLCI+ and USEEIO are still not available and will be provided at a later time.

Some software changes have also been implemented to allow for changes in data and improve data import – most relevant changes to SimaPro users are also included in this document and in the release notes.

Comparing results with SimaPro Craft

If you observe differences in results between SimaPro Craft and SimaPro Flow or SimaPro Synergy after the release, please check your desktop SimaPro database is up-to-date (has been updated to SimaPro 10.2 data contents).

2 Overview of data changes

2.1 New data libraries

Please find below a summary of the new data libraries within the data release - Professional 10.2, which includes two new data libraries.

2.1.1 ecoinvent 3.11

With the release of ecoinvent v3.11, the ecoinvent database integrates around 200 new and 4500 updated data sets, also with expanded geographical coverage. Sectors updated with this version include fuels, energy, chemicals and plastics, batteries, building and construction, waste, agriculture, forestry and wood, pulp and paper, metals and transport. More information on new and updated data can be found here.

ecoinvent EN15804 also available but requires additional paid license

The ecoinvent allocation, cut-off EN15804 (version 3.11) is now also available on the SimaPro Online Platform. This system model is fully compliant with ISO 14025, ISO 21930 and EN15804+A2:2019. It provides all Life Cycle Inventory (LCI) indicators required by the aforementioned standards and adheres to the end-of-waste criteria set by the European Commission. To access this data, an add-on ecoinvent license is required which you can purchase via PRé or your SimaPro reseller.

2.1.2 EF 3.1 part 2 gap-filling

This library was developed by Sphera and it includes the datasets provided for Part 2 gap-filling in the EF 3.1 data stock. Released on March 2023. For the full content of these libraries please refer to the nodes of the data providers. The Environmental Footprint (EF) database 3.1 is designed to support the development of product environmental footprint (PEF) category rules (PEFCR) and organisation environmental footprint (OEF) sector rules (OEFSR) and to perform PEF and OEF studies.

The EF Database 3.1 contains:

- EF-compliant datasets (using the EF reference package 3.1),
- EF 3.1 impact assessment method,
- Default parameters to use with the Circular Footprint Formula (CFF), from Annex C of the revised Recommendation on the use of Environmental Footprint methods. They are implemented as database parameters in SimaPro and facilitate modeling of the CFF.

2.2 Updated data libraries

The following data libraries have been updated with replaced substances:

- Alliance for Beverage Cartons and the Environment (ACE)
- AGRIBALYSE - Unit [3.1]
- Agri-footprint 6.3 - economic - unit
- Agri-footprint 6.3 - energy - unit
- Agri-footprint 6.3 - mass – unit
- EF Database 3.1 - Agrofoods [Blonk]
- EF Database 3.1 - Apparel 1 [ecoinvent]
- EF Database 3.1 - Apparel 2 [ecoinvent]
- EF Database 3.1 - Apparel 3 [ecoinvent]
- EF Database 3.1 - Chemicals 1 [ecoinvent]
- EF Database 3.1 - Chemicals 2 [ecoinvent]
- EF Database 3.1 - Chemicals for paints [CEPE]
- EF Database 3.1 - Core package [Sphera]
- EF Database 3.1 - Feed [Blonk]
- EF Database 3.1 - Others [ecoinvent]
- EF Database 3.1 - Part 2 [Sphera]
- EF Database 3.1 - Plastics [ecoinvent]
- EF Database 3.1 - Renewables [Blonk]
- Industry Data 2.0 (SimaPro 9.3)
- USLCI
- WEEE
- World Food LCA Database
- Worldsteel 2021

Additional data libraries

To access additional data libraries, please first check what is available for SimaPro Synergy or the SimaPro Online Platform. If eligible, please reach out to SimaPro Support to request access.

2.3 Changes to impact assessment methods

Please find below a summary of changes to impact assessment methods. Note that if you have saved default calculation setups, you need to manually update the selected method to use the latest version (it is not automatically updated to the newer version).

2.3.1 New impact assessment methods

2.3.1.1 New | MarILCA

The MarILCA method developed by Corella-Puertas et al. offers a framework for quantifying the environmental impact of microplastic emissions in aquatic ecosystems. It integrates data on micro- and nanoplastic toxicity to aquatic organisms and introduces fate factors for various polymer types, shapes, and sizes. This methodology updates the life cycle assessment (LCA) approach by addressing gaps in understanding the physical effects of microplastics on marine biota. It is designed as a practical tool for environmental decision-makers to assess the sustainability of plastic use and alternatives.

The impact assessment in the MarILCA framework measures microplastic effects using two key metrics: exposure and effect factors (EEF) and fate factors (FF). The EEF is expressed in terms of impacts per unit mass of microplastic (kg), and FF evaluates the likelihood of particles reaching aquatic environments based on polymer degradation rates and transport pathways. These units allow practitioners to estimate how much damage a given amount of microplastic can cause to aquatic life, based on real-world environmental behavior.

Quantified Polymers:

- HDPE (High-density polyethylene)
- LDPE (Low-density polyethylene)
- Nylon (PA)
- PET (Polyethylene terephthalate)
- PHA (Polyhydroxyalkanoates)
- PLA (Polylactic acid)
- PP (Polypropylene)
- PS (Polystyrene)
- PVC (Polyvinyl chloride)

Quantified Shapes:

- Microplastic beads
- Fragments
- Fibers

Quantified Sizes:

- 1 µm
- 10 µm
- 100 µm
- 1000 µm

For the damage assessment, the model calculates physical impacts like ingestion rates and mortality, translating these into risk factors for specific organisms and ecosystems. By modeling microplastic interactions with species over time, the MarILCA framework predicts broader ecological consequences, linking microplastic quantities to ecosystem damage.

2.3.1.2 New | TRACI 2.2

The Tool for the Reduction and Assessment of Chemical and other environmental Impacts (TRACI) is a midpoint oriented LCIA methodology developed by the U.S. Environmental Protection Agency specifically for the US using input parameters consistent with US locations.

TRACI 2.2 facilitates the characterization of environmental stressors that have potential effects, including ozone depletion, global warming, tropospheric ozone (smog) formation, acidification, human health cancer effects, human health non-cancer effects, respiratory effects, ecotoxicity, freshwater eutrophication and marine eutrophication. The method includes characterization and normalization.

The differences between TRACI 2.1 and TRACI 2.2 include the following:

- Ozone depletion: The CF for Methane, monochloro-, R-40 has been updated from 0.2 to 0.02 kg CFC-11 eq/kg.
- The Fossil fuel depletion category has been removed.
- The Eutrophication category has been replaced by the categories Freshwater eutrophication and Marine eutrophication, which contain regionalized characterization factors.

Please note that the TRACI 2.1 method has been moved to the Superseded section of the Methods library.

2.3.2 Updated impact assessment methods

A number of methods have been updated:

- Characterization factors for new geographies for some water related substances, and of nitrogen- and phosphorus-related substances have been added in all (applicable) methods.
- Mappings of nitrogen and phosphorus to nitrogen- and phosphorus-related substances have been aligned across all (applicable) methods for eutrophication impact categories.
- Environmental footprint 3.1 (adapted) and EN 15804 + A2 (adapted): Ecotoxicity, freshwater and Ecotoxicity, freshwater – organics both of which were originally split into parts 1 and 2 have now been combined in a single impact category.

- ReCiPe 2016: Regionalized characterization factors for COD (Chemical Oxygen Demand) have been added to Freshwater eutrophication

For more details on the changes, please see the comment section of the individual methods.

Additionally, the characterization factors of specified subcompartments that match the characterization factor of the unspecified subcompartment have been removed from all applicable methods since these will automatically be characterized with the same characterization factor as the unspecified subcompartment.

Finally, the TRACI 2.1 and Environmental Prices methods have been moved to the Superseded section. These will no longer be maintained as newer versions are available – users are advised not to use these methods. Documentation of superseded methods can still be found here.

Using the correct method version with the corresponding library version

Please note that new libraries are **not** backward compatible with older methods - e.g. the library ecoinvent 3.11 Cut-off can be used with the LCIA method ReCiPe 2016 Midpoint H [1.11], but it should not be used with ReCiPe 2016 Midpoint H [1.08]. This is because the latter corresponds to the method released with ecoinvent 3.9.1 in SimaPro 9.6 Professional, and does not use the same substance nomenclature as ecoinvent 3.11. To check which method version was released with which ecoinvent version please refer to the changelogs provided with each data release.

2.4 Changes to substances

Please find below a summary of changes to substances:

- 763 new substances were added.
- 33 substances were renamed, for consistency across SimaPro products portfolio.
- 23 substances have been replaced.
- 20 substances that are no longer supported, and hence would not be characterized by new methods.

For a complete list of substances which have been added, renamed or replaced, please refer to the detailed changelog.

3 Changes to software

3.1 New mapping options when importing SimaPro csv files

When importing data via a SimaPro csv file, after uploading a file on the Import Details page, you can select which nomenclature is used in the file. This means you can more easily import data from different versions of SimaPro into the platform. Please note that the nomenclature chosen this only affects how substances are mapped, not products.

With this release, we have introduced new import options, so users should now see the following options – please make sure to choose the libraries that you use in the new project, prior to importing data!

- **Professional 9.4** – ensures substances are mapped based on naming convention in the SimaPro Professional 9.4 database (with ecoinvent 3.8)
- **SimaPro EF 3.1** – ensures substances are mapped based on naming convention in the SimaPro Environment Footprint 3.1 database. Choose this option when doing PEF modelling or if the data originated from a SimaPro Desktop database using the EF 3.1 libraries
- **Professional 9.5** – ensures substances are mapped based on naming convention in the SimaPro Professional 9.5 database (with ecoinvent 3.9.1)
- **Professional 9.6** – ensures substances are mapped based on naming convention in the SimaPro Professional 9.6 database – choose this option when importing data modelled using the SimaPro Professional 9.6 database (with ecoinvent 3.10)
- **SimaPro ecoinvent 3.10 EN15804** – ensures substances are mapped based on naming convention in the SimaPro EN 15804 +A2 database
- **Professional 10.2** – ensures substances are mapped based on naming convention in the SimaPro Professional 10.2 database – choose this option when importing data modelled using the SimaPro Professional 10.2 database (with ecoinvent 3.11)
- **SimaPro ecoinvent 3.11 EN15804** – ensures substances are mapped based on naming convention in the SimaPro EN 15804 +A2 database

Please note that when exporting from SimaPro 10.1, users should choose the option ‘Professional 10.2’. This may lead in some edge cases to minor differences in results between SimaPro Craft and SimaPro Online Platform, or between SimaPro Craft and SimaPro Synergy. Please upgrade SimaPro Craft in this case to the latest version.

Importing data from older versions of SimaPro

If you have data from an older version of SimaPro (i.e, prior to SimaPro 9.4 with ecoinvent 3.8), please follow the desktop user guide to first update your SimaPro Desktop database to the latest version. More information and instructions on how to update can be found here.

Importing ecoinvent 3.11 data prior to the official data release

Please ensure that no data from new data libraries is imported to SimaPro online platform or SimaPro Synergy before the official data release. Incorrect substance mapping can lead to differences in LCIA results, due to missing or invalid substances. After the official release, make sure to replace all previously imported processes with the official processes from the new data libraries.

4 Contact us

Please contact us or your local partner if you have questions about these changes in the SimaPro software or database, or if you have any other questions related to the update. You can reach out to us via:

- SimaPro Online Platform: https://apps.simapro.com/contact-support **(recommended)**
- SimaPro Synergy: https://synergy.simapro.com/contact-support
- SimaPro Help Center contact form: https://support.simapro.com/s/contactsupport
- E-mail: support@simapro.com
- Phone: +31 33 4504010