

[ISOPA](#), with an aim on supporting and improving the environmental performance of polyurethane product manufacturing, and [ecoinvent](#), with a mission to enhance good practices in the creation and use of life cycle inventories around the world, collaborated in updating the data covering the production of polyols and diisocyanates in the [ecoinvent database](#). This collaboration and the combined mission of the two associations aim to facilitate informed decision-making worldwide by providing high-quality environmental data. The updated averaged data are available in ecoinvent version 3.10.

[ISOPA](#) updated the environmental performance data in 2021, i.e., [ISOPA Eco-Profiles](#), covering the production of polyols (long- and short-chain) and diisocyanates (methylene diphenyl diisocyanate, MDI, and toluene diisocyanate, TDI) in Europe. ISOPA members cover 80% and 100% of the production volume of polyols and TDI/MDI in Europe, respectively. Hence, the data used in the [ISOPA Eco-Profiles](#) have high technological coverage and completeness. Regarding methodology, the results reported in the [ISOPA Eco-Profiles](#) were calculated using a combined elemental and mass allocation for the by-product hydrochloric acid (HCl) of the MDI and TDI production.

Regarding [ecoinvent](#), the association aims for consistency and tractability of data within the entire [ecoinvent database](#) ecosystem. Hence, by publishing averaged unit process data, i.e., averaging is done after modeling the specific processes, the latter aim is achieved and the confidentiality of the [ISOPA](#) data is ensured. In joint discussions, it was decided that the ISOPA averaged data are provided in ecoinvent version 3.10 using economic allocation to align the entire value chains of the chemicals sector data and beyond. Finally, the aggregated [ISOPA Eco-Profiles](#) data will also be available in the same version.

The environmental scores of polyols and diisocyanates in ecoinvent version 3.10 deviate from the values reported in the [ISOPA Eco-Profiles](#) as different background data is used. Namely, such deviations amount to 29–32% and 39–45% higher global warming potential for the polyols and diisocyanates, respectively, and prior allocation is applied. The latter environmental scores— and their deviation from the [ISOPA Eco-Profiles](#)— were approved by [ISOPA](#) as valid and representative. More information for other environmental metrics is available in the [report of changes](#).

About ISOPA

[ISOPA](#) is the European trade association for producers of diisocyanates and polyols – the main building blocks of polyurethanes. The [ISOPA Eco-Profiles](#) for polyurethane precursors follow the well-established and widely applied PlasticsEurope methodology. The first Eco-Profile reports were published in 1993. Since then, reports have been added and continuously updated to meet best practices and stakeholder needs. The members of ISOPA are [COVESTRO](#), [BorsodChem](#), [DOW](#), [BASF](#), [HUNTSMAN](#), and [Shell Chemicals](#).

About ecoinvent

[ecoinvent](#) is an internationally active, mission-driven organization devoted to supporting high-quality, science-based environmental assessments. Its activities include publishing and maintaining the ecoinvent database, a comprehensive life cycle inventory database that provides reliable and transparent information on the environmental impacts of various products and services. It is used by companies, researchers, and policymakers to analyze the environmental impact of their operations, make informed decisions, and develop sustainable practices.