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# Chesar 3 in a nutshell

Chesar stands for Chemical Safety Assessment and Reporting. The tool has been developed by the European Chemicals Agency (ECHA) to support registrants under REACH. It follows a workflow for carrying out exposure assessments and risk characterisations, thereby facilitating the generation of a Chemical Safety Report and exposure scenarios for communication.



## WHAT DOES CHESAR OFFER?

Chesar increases the efficiency of conducting chemical safety assessments (CSAs). It supports a workflow for the assessment process and facilitates the re-use (or update) of assessment elements across substances generated within a single Chesar instance or imported from external sources. The tool enables automated generation of chemical safety reports (CSRs) and exposure scenarios (ESs) for communication from the assessment.

Chesar provides consistency between CSRs and the exposure scenarios communicated to downstream users. It also facilitates exchange of data between IUCLID and Chesar and therefore supports consistency between the technical dossier and the CSR.

To fully benefit from Chesar's capacity to re-use assessment elements (across various substances), sector organisations can provide information on uses within their sectors and the associated conditions of use in use maps. With Chesar such information can be generated in XML exchange format and made available to all registrants to support their CSR preparations.

## HOW DOES CHESAR WORK?

To use Chesar, an assessor needs to have sufficient information available on the properties of the substance, the uses of the substance, the related tonnages and the conditions under which the uses take place. Use maps developed by sector

associations can be directly imported if they have been made available in Chesar format. Based on these inputs the assessor defines the conditions of safe use, calculates (and/or reports) the corresponding exposure estimates and compares the estimated exposure to the predicted no-effect concentrations for the environment (PNECs) and the derived no-effect levels for human health (DNELs).

Environmental exposure estimates provided by Chesar are based on the EUSES 2.1 fate model and a release module for reporting environmental releases and the corresponding conditions of use. The release estimates can be based on Environmental Release Categories (ERCs), release factors or Specific Environmental Release Categories (SpERCs).

Workers and consumers exposure estimations provided by Chesar are calculated using the ECETOC TRA tool (available on <http://www.ecetoc.org/tra>).

Chesar also supports the assessments based on other exposure estimation tools or measured data.

In addition, Chesar can be used for qualitative assessments when predicted no-effect-levels are unavailable for certain hazards.

Chesar 3 also supports the assessment of complex cases such as substances that transform, multi-constituent/UVCBs where (groups of) constituents behave differently, or substances available in several forms/compositions with different hazard profiles.

Once the assessment has been completed, a full CSR combining the information in IUCLID and Chesar can be generated automatically and information on the uses can be sent to IUCLID. Exposure scenarios for communication can then be generated, including the possibility to export to ESComXML format.



## WHY USE CHESAR?

Chesar helps you to manage the safety and exposure of your chemicals. You or your consultant can:

- Perform your chemical safety assessment (CSA) with a standard workflow/harmonised format.
- Create and update your chemical safety report (CSR) - it is generated automatically from the CSA. This saves money and time!
- Use it to create the exposure scenarios to communicate the conditions of safe use to your customers.
- Be consistent with data: Chesar exchanges data with IUCLID.
- Download it free-of-charge and install it easily!

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## FURTHER INFORMATION:

Chesar website

» <http://chesar.echa.europa.eu/>