

Concawe Fuel Use map v1.0 - Guidance for the assessor

The Concawe use map for fuel use was developed based on the Generic Exposure Scenarios (GES) of the European Solvents Industry Group (ESIG). Details on the ESIG GES are available on the ESIG website: <http://www.esig.org/regulatory/reach-ges>

CONSIDERATIONS FOR HUMAN HEALTH RISK ASSESSMENTS

1. Worker assessment

The ESIG GES for workers include the input parameters required for an assessment based on the ECETOC TRA worker tool (<http://www.ecetoc.org/tools/targeted-risk-assessment-tra>).

Selection of RMM/OC level

Each use is described with two (2) levels of Risk Management Measures (RMM)/ Operating Conditions (OCs) to allow the selection of appropriate level of RMMs/OCs based on the volatility (vapour pressure) and hazard profile of the assessed substance, as follows:

- **Level I - basic level of RMMs/OCs:** makes use of the ESIG GES for Low Volatility/Low DNEL¹, and
- **Level II - advanced level of RMMs/OCs:** makes use of the ESIG GES for Medium Volatility/Low DNEL,

where:

Low Vapour Pressure: < 0.5 kPa at STP

Medium Vapour Pressure: 0.5 - 10 kPa at STP

Low DNEL: ≤ 10 ppm for inhalation exposure; ≤ 5 mg/kg/day for dermal exposure

The assessor needs to delete the Exposure Scenarios of the non-applicable level for the given substance, preferably after carrying out the assessment with the uses Level I and II by default. Not for all Vapour Pressure/DNEL bands supporting ESIG GES are available. The

¹ Derived No Effect Level

Vapour Pressure/DNEL band closest to the substance properties should be selected as starting point and the assessment should be, subsequently, refined as indicated below.

How to refine the Chemical Safety Assessment (CSA)

Concawe use map does not make use of Sector-Specific Worker Exposure Descriptions (SWEDs) to allow flexibility in refinement of OCs and RMMs and to tailor safety assessment according to the properties of the substance. It is the responsibility of the assessor to refine the RMMs, if Level II controls are insufficient to demonstrate safe use, following the concept of “**hierarchy of controls**”, i.e. engineering controls > administrative and work practice controls > personal protective equipment.

Aerosol assessment

Assessment of aerosols lies under the expertise of the assessor who has to determine if aerosol exposure is likely to occur and how to carry out the risk assessment, depending on the phys-chem properties of the substance. In ESIG GESs, several open-type PROCs are considered to potentially lead to aerosol formation from non-spraying activities due to high kinetic energy applied or due to condensation following heating. In the Fuel Use map, these may include PROCs 4, 5, 8a and 8b, depending on the conditions of use and fuel type.

The TRA model manual (see ECETOC TR114²), suggests to use the medium dustiness band as a conservative prediction of aerosol exposure in the absence of measured exposure data or input information for higher tier exposure models (e.g. ART). Should the assessor have representative measured exposure data for aerosols/mists, it can be used to overwrite current exposure predictions.

Gaseous substances

The use map does not support assessment of worker exposure to gaseous substances given that typical REACH exposure models (TRA and ART) do not predict exposure to gases.

2. Consumer assessment

Consumer uses are based on the Concawe Specific Consumer Exposure Determinants (SCEDs). Details are available on the Concawe website: <https://www.concawe.eu/reach/specific-consumer-exposure-determinants-sceds-documents/>

² ECETOC TR114 (2012) ECETOC TRA version 3: Background and Rationale for the Improvements.

The consumer uses Concawe supports for petroleum substances are listed in the Table below. This Table helps the assessor to decide which product (and the associated SCEDs) are applicable for the assessed substance and which contributing scenarios can be removed from the life cycle.

Product	Category
Gasoline	Concawe_SCED_13_1_a Concawe_SCED_13_4_a Concawe_SCED_13_7_a
Kerosine	Concawe_SCED_13_5_a
Diesel	Concawe_SCED_13_3_a
Liquefied Petroleum Gas (LPG)	Concawe_SCED_13_2_a Concawe_SCED_13_6_a

3. Qualitative risk assessment

The Concawe use map includes the conditions or uses required to perform quantitative risk assessments (with TRA). It is up to the assessor to assess whether additional conditions of uses are required e.g. to address qualitative hazard.

The obligation under REACH to carry out qualitative risk assessments can be taken into account with the addition of appropriate Conditions of Use (CoU).

For certain low hazard qualitative endpoints (e.g. skin irritation), separate CoU may not be necessary, as the use of quantitative RMMs such as gloves may be sufficient. In such instances, justification for the approach taken can be indicated in Box 3 of Chesar tool either

in the text bubble of the respective RMM or in the risk characterisation tab under the text box related to “Qualitative risk characterisation justification”.

CONSIDERATIONS FOR ENVIRONMENTAL RISK ASSESSMENTS

ESIG/ESVOC SpERCs have been mapped to the environmental risk assessments in the Concawe use map. Concawe has supported ESIG in developing petrochemical-specific ESIG/ESVOC SpERCs. For further info, please consult <https://www.esig.org/reach-ges/>. In case of future technical and/or regulatory requirements, the environmental risk assessments will be updated accordingly.

OVERALL REMARK

Concawe will regularly update its use map for fuel use, when necessary, to account for changes in the industry and/or regulatory requirements.