

SUPPLEMENTAL MATERIALS

Appendix B. Process for searching and collecting evidence from other resources

Review of reference lists from existing assessments (final or publicly available draft), journal reviews articles and studies considered relevant to PECO based on full-text screening.

Review of the citation reference lists is typically done manually because they are not available in a file format (e.g., RIS) that permits uploading into screening software applications. Manual review entails scanning the title, study summary, or study details as presented in the resource for those that appear to meet the PECO criteria. Any records identified that were not identified from the other sources are imported into HAWC and screened. For tracking assessments or reviews, the name of the source citation and the number of records imported into HAWC are noted. The reference list of any study included in the literature inventory is reviewed manually to identify titles that appeared relevant to the PECO criteria. These citations are tracked in a spreadsheet, compared against the literature base to determine if they were unique to the project, and then added to HAWC to be screened for PECO relevance.

Acute Exposure Guideline Levels for Airborne Chemicals (AEGLs)

The AEGL database (<https://www.epa.gov/aegl/access-acute-exposure-guideline-levels-aegls-values#chemicals>) is searched by chemical name and CASRN. Any available reference value documentation is tracked.

Australian Industrial Chemicals Introduction Scheme (AICIS)

The AICIS assessment page (<https://services.industrialchemicals.gov.au/search-assessments/>) is searched by chemical CASRN.

Defense Technical Information Center (DTIC)

For Department of Defense-relevant chemicals, DTIC is searched by chemical name, synonyms, and CASRN, and the top 100 results are retrieved. Every record marked “APPROVED FOR PUBLIC RELEASE” that it is not already identified from the database search (or searches of

“other sources consulted”) is screened at the title-and-abstract level. For those deemed potentially relevant, a citation is generated in HERO. References are then further screened in HAWC against the PECO criteria.

ECETOC

The ECETOC publications list (<http://www.ecetoc.org/publications>) is searched by chemical name and CASRN. Any record that it is not already identified from the database search (or searches of “other sources consulted”) is uploaded to HAWC and screened against the PECO criteria.

EPA CompTox Chemicals Dashboard (ToxValDB)

ToxValDB is searched in the EPA CompTox Chemicals Dashboard , and data available from the Hazard tab is exported from the CompTox File Transfer Protocol site (<ftp://newftp.epa.gov/COMPTOX/STAFF/rjudson/datasets/ToxValDB/2019-08-20/>). Using both the human health POD summary file and the Record Source file, citations are identified that apply to human health PODs. A citation for each referenced study is generated in HERO and verified that it is not already identified from the database search (or searches of “other sources consulted”) prior to moving forward to screening in HAWC.

European Chemicals Agency (ECHA)

A search of the ECHA registered substances database is conducted using the CASRN. The registration dossier associated with the CASRN is retrieved by navigating to and clicking the eye-shaped view icon displayed in the chemical summary panel. The general information page and all subpages included under the Toxicological Information tab are downloaded in PDF (Portable Document Format), including all nested reports having unique URLs.

At this stage, each study summary is reviewed for inclusion based on PECO criteria. Study summaries identified as without administrative data information are excluded from review, and study summaries labeled “read across” (if any) are screened and considered supplemental material. When a study summary considered relevant reported data from a study or lab report, a citation for the full study is generated in HERO and verified that it is not already identified from the database search (or searches of “other sources consulted”) prior to moving forward to screening.

European Food Safety Authority (EFSA)

The EFSA online journal is searched by chemical name, synonyms, and CASRN. Any records returned that have not already been identified from the database search (or searches of “other sources consulted”) are added to HERO and screened in HAWC.

EPA ChemView

The EPA ChemView database is searched using the chemical CASRN. The prepopulated CASRN match and the “Information Submitted to EPA” output option filter are selected before generating results. If results are available, the square-shaped icon under the “Data Submitted to EPA” column is selected, and the following records are included:

- High Production Volume Challenge Database (HPVIS)
- Human Health studies (Substantial Risk Reports)
- TSCA Section 4 (Chemical testing results)
- TSCA Section 8(d) (Health and safety studies)
- TSCA Section 8(e) (Substantial risk)
- FYI (Voluntary documents)

All records for ecotoxicology and physical and chemical property entries are excluded. When results are available, extractors navigate into each record until a substantial risk report link is identified and saved as a PDF file. Substantial risk reports move forward to HAWC for screening according to PECO and supplemental material criteria.

Japan Existing Chemical Database (JECDB)

The database (https://dra4.nihs.go.jp/mhlw_data/jsp/SearchPageENG.jsp) is searched by chemical CASRN. References that look potentially relevant based on PECO criteria are tracked and screened in HAWC.

National Toxicology Program (NTP)

1 [Chemical Effects in Biological Systems \(CEBS\) database](https://cebs.niehs.nih.gov/cebs/) of study results and research
2 projects (<https://cebs.niehs.nih.gov/cebs/>) and literature assessment
3 (<https://ntp.niehs.nih.gov/publications/index.html>). These resources can be searched by using the
4 general search field for the primary chemical name or CASRN and selecting applicable filters (i.e.,
5 testing program, literature analysis).

6 The Chemical Effects in Biological Systems database is searched using the chemical CASRN
7 (<https://manticore.niehs.nih.gov/cebssearch>). All non-NTP data are excluded using the “DTT Data
8 Only” filter. Data tables for reports undergoing peer review
9 (<https://ntp.niehs.nih.gov/data/tables/index.html>), the Report on Carcinogens
10 (<https://ntp.niehs.nih.gov/whatwestudy/assessments/cancer/roc/index.html>), and the NTP
11 publication index (<https://ntp.niehs.nih.gov/publications/index.html>) are also searched by
12 chemical name.

National Technical Reports Library (NTRL)

13 NTRL is searched by chemical name, synonyms, and CASRN. HERO citations are generated
14 for the top 100 search results. Records not already identified from the database search (or searches
15 of “other sources consulted”) are then uploaded to HAWC for screening. For NTRL, the first 100
16 records are screened, and then additional batches of 100 are screened if more than one PECO
17 relevant reference is identified.

Organisation for Economic Co-operation and Development (OECD) Echem Portal

18 The OECD Echem Portal (<https://hpvchemicals.oecd.org/UI/Search.aspx>) is searched using
19 the chemical CASRN. Only database entries from the following sources are included, and entries
20 from all other databases are excluded in the search.

- 21 • OECD HPV
- 22 • OECD SIDS IUCLID
- 23 • SIDS United Nations Environment Programme (UNEP)

1 Final assessment reports and other relevant SIDS reports embedded in the links are
2 captured and saved as PDF files.

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