2021 A4 International Symposium on Alternatives Assesment
A4 Short Course – Tour de Force of Tools from the US Environmental Protection Agency (EPA) to Support Assessments of Alternatives

Resource Mentioned	Description	Link
CompTox Chemicals Dashboard	Dashboard link	https://comptox.epa.gov/dashboard
CompTox Chemicals Dashboard Background Paper	Provides access to a compilation of data generated within the agency and sourced from multiple databases	https://pubmed.ncbi.nlm.nih.gov/33481596/
CompTox DTXSID Identifiers	DSSTox Substance Identifier	https://comptox.epa.gov/dashboard/downloads
CompTox Flame Retardants List	List of Flame Retardants including all PDBEs	https://comptox.epa.gov/dashboard/chemical_lists/FLAMERETARD
CompTox Tire Crumb Rubber List	Fields and Playgrounds	https://comptox.epa.gov/dashboard/chemical_lists/TIRECRUMB
Comptox Terpenes in Vape List	Organic compounds found in the marijuana plant	https://comptox.epa.gov/dashboard/chemical_lists/VATERPENES
ToxVal Database Version 5	Toxicity Values database	https://comptox.epa.gov/dashboard/chemical_lists/TOXVAL_V5
CAS RNs	CAS Registry Number - CAS RNs are widely used as an authoritative global industry standard to ensure the accuracy of chemical information.	https://www.cas.org/support/documentation/chemical-substances/cas-rn-verified-partner-program
CAS Checksum	integrity of an electronic data	https://www.cas.org/support/documentation/chemical-substances/checkdig
ChemConnect for CAS conversions	CAS conversions in excel from date to number	http://www.chemconnector.com/2019/03/16/converting-dates-to-cas-registry-numbers-in-excel/
EPA List of UVCB Substance	Complex Reaction Products and Biological Materials	https://www.epa.gov/tsca-inventory/chemical-substances-unknown-or-variable-composition-complex-reaction-products-and
Fipronil	chemical family	https://www3.epa.gov/pesticides/chem_search/cleared_reviews/csr_PC-129121_31-Aug-05_a.pdf
Chloride	A common component of cleaning agents (ex. Clorox disenfecting wipes)	https://sor.epa.gov/sor_internet/registry/substreg/searchandretrieve/advancedsearch/externalSearch.do?p_type=CASNO&p_value=85409-23-0
Labelling	Material Safety Data Sheet/ Safety Data Sheet (SDS)	https://www.epa.gov/pesticide-registration/prn-2012-1-material-safety-data-sheets-pesticide-labeling
EPA Pesticide Registration for IPBC (3-iodo-2-propynyl butylcarbamate)	A water-soluble preservative used globally in the paints & coatings, wood preservatives, personal care, and cosmetics industries	https://www3.epa.gov/pesticides/chem_search/reg_actions/reregistration/fs_PC-107801_4-Mar-99.pdf
EPA Overview of PUCs	Public utility commissions-regulate electric, gas, telecommunications, water and waste water utilities	https://www.epa.gov/sites/default/files/2016-03/documents/background_paper.pdf
REDs	Reregistration Eligibility Decisions	https://www.epa.gov/pesticide-reevaluation/reregistration-and-other-review-programs-predating-pesticide-registration
GenRA Workflow	Generalized Read-Across (GenRA) workflow link	https://www.altex.org/index.php/altex/article/view/1202
GenRA Manual	Generalized Read-Across (GenRA) Manual	https://www.epa.gov/chemical-research/generalized-read-across-genra-manual
GenRA Tutorial	Generalized Read-Across (GenRA) YouTube tutorial introduction video	https://youtu.be/TCg387LhVpY https://www.youtube.com/watch?v=TCg387LhVpY
EPI Suite	Estimation Programs Interface (EPI) Suite is a A Windows®-based suite of physical/chemical property and environmental fate estimation program	https://www.epa.gov/tsca-screening-tools/epi-suitetm-estimation-program-interface#what
TEST	the toxicity of chemicals using Quantitative Structure Activity Relationships (QSARs) methodologies	https://www.epa.gov/chemical-research/toxicity-estimation-software-tool-test
OPERA	OPERA (OPEn (q)saR App is a free and open source QSAR tool for predicting physicochemical properties and environmental fate endpoints	https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=340233&Lab=NCCT
ECOSAR	toxicity	https://www.epa.gov/tsca-screening-tools/ecological-structure-activity-relationships-ecosar-predictive-model
Pharos Database	Provides hazard, use, and exposure information on 140,922 chemicals and 186 different kinds of building products	https://pharosproject.net/
RapidTox Project	Support tool to integrate chemistry, toxicity and exposure information	https://www.epa.gov/chemical-research/rapidtox-dashboard
HCD (Hazard Comparison Dashboard)	Useful way to profile a set of chemicals using available data sources and dig into the underlying data	https://hazard.sciencedataexperts.com/#/
DSSTox Database	Distributed Structure-Searchable Toxicity (DSSTox) Controls quality of chemical ID-structure association	https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=350156&Lab=NCCT
EU's SCIP Database	Database for information on Substances of Concern In Products/articles (SCIP) as such or in complex objects	https://echa.europa.eu/scip
NaKNowBAse	A Nanomaterials Relational Database	https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NHEERL&dirEntryId=341357
2018 article on the chemicals and products database	"The Chemical and Products Database, a resource for exposure-relevant data on chemicals in consumer products" by Dionisio et al.	https://www.nature.com/articles/sdata2018125
2014 article on high throughput heuristics for chemicals	"High Throughput Heuristics for Prioritizing Human Exposure to Environmental Chemicals" by Wambaugh et al.	https://pubs.acs.org/doi/10.1021/es503583j
2014 article on consensus modeling	"Consensus Modeling of Median Chemical Intake for the U.S. Population Based on Predictions of Exposure Pathways" by Ring et al.	https://pubs.acs.org/doi/10.1021/acs.est.8b04056
2019 article on high throughput screening of chemicals	"High-throughput screening of chemicals as functional substitutes using structure-based classification models" by Phillips et al.	https://pubs.rsc.org/en/content/articlelanding/2017/GC/C6GC02744J
2019 article on the next generation of	"The Next Generation Blueprint of Computational Toxicology at the U.S.	https://academic.oup.com/toxsci/article/169/2/317/5369737
2019 article on an automated framework for chemical hazard	"An automated framework for compiling and integrating chemical hazard data" by Vegosen and Martin	https://link.springer.com/article/10.1007/s10098-019-01795-w