

APPENDIX A

DATA SOURCES EVALUATION MATRIX

This is a listing of all data sources considered for this evaluation with notes on the purpose that each data source served. Also noted are the source of the data, the ranking category, and the scheme used to assign points. Weights for each data source were assigned as described in the main body of the report. Data sources that are shaded were not selected for analysis.

TABLE A-1. DATA SOURCES EVALUATION MATRIX

Item	Data Source Name	Purpose	Data Loaded?	Data Loading Source/Status Note
1.	SDWA National Primary Drinking Water Regulations	Presence on this list shows that the chemical is already regulated; however, under the SDWA chemicals already regulated are reviewed every six years for update as required by law, thus the potential for future change exists by statute.	Yes	Data loaded from EC scanning database
2.	CCL1	The CCL is a precursor to regulation under the SDWA. While not all chemicals on the CCL will be regulated under SDWA, the presence of a chemical on the list indicates that the USEPA is moving in that direction.	No	Data are not needed because the CCL1 was duplicated by the next iteration of the CCL (see below).
3.	CCL2	The CCL2 is an update to CCC1 and is a precursor to regulation under the SDWA. While not all chemicals on the CCL2 will be regulated under SDWA, the presence of a chemical on the list indicates that the USEPA is moving in that direction.	No	Data are not needed because the CCL3 is available (see below).
4.	CCL3	The proposed CCL3 is a 2008 update to CCL2 and is a precursor to regulation under the SDWA. While not all chemicals on the CCL3 will be regulated under SDWA, the presence of a chemical on the list indicates that the USEPA is moving in that direction.	Yes	Data acquired from USEPA web site
5.	UCMR 2	The UCMR 2 is a precursor to regulation under the SDWA. The presence of a chemical on the list shows that the USEPA is in the early data collection stages for potential regulation.	Yes	Data loaded from EC scanning database

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Item	Data Source Name	Purpose	Data Loaded?	Data Loading Source/Status Note
6.	NAAQS	Presence on this list shows that a chemical is already regulated; however, chemicals for which NAAQS were established are reviewed every five years for possible update as required by law, thus the potential for future change exists by statute.	Yes	Data loaded from EC scanning database
7.	USEPA Current Regulatory Agenda, 2007	Presence on this list shows that the chemical is being proposed for a regulatory change.	No	Data are not available with Chemical Abstracts Service (CAS) number Unlikely to be usable for large scanning effort Preliminary review indicates that regulatory changes are described under specific rule makings and not usually tied to a specific chemical.
8.	OSHA Current Regulatory Agenda, 2007	Presence on this list shows that the chemical is being proposed for a regulatory change.	No	Data are not available with CAS number Unlikely to be usable for large scanning effort
9.	Federal Register Publication with X years	Presence on this list shows that the chemical is undergoing a regulatory change.	No	Data are not available with CAS number Unlikely to be usable for large scanning effort
10.	IRIS Update List 2005, 2007	Presence on the lists show that the chemical is undergoing an initial or reevaluation for potential toxic effects.	No	Data were loaded from EC scanning database.
11.	IRIS Update List 2008	Presence on this list shows that the chemical is undergoing an initial or reevaluation for potential toxic effects.	Yes	Data were loaded from EC scanning database.
12.	CWA (Hazardous Substance, Priority Pollutant or Toxic Pollutant)	Presence on this list shows that the chemical is already regulated. Experience shows that chemicals with regulations are more likely to be regulated further.	Yes	Data were loaded from EC scanning database.

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Item	Data Source Name	Purpose	Data Loaded?	Data Loading Source/Status Note
13.	CERCLA/SARA/EPCRA	Presence on this list shows that the chemical is already regulated. Experience shows that chemicals with regulations are more likely to be regulated further.	Yes	Used data from Naval Sea Systems Command (NAVSEA) Target Chemicals List (TCL) database
14.	RCRA Listed Waste	Presence on this list shows that the chemical is already regulated. Experience shows that chemicals with regulations are more likely to be regulated further.	Yes	Used data from NAVSEA TCL database
15.	Federal Insecticide, Fungicide and Rodenticide Act	Presence on this list shows that the chemical is already regulated. Experience shows that chemicals with regulations are more likely to be regulated further.	No	Data from USEPA web site do not agree with data descriptions; thus, data are unusable.
16.	CAA HAPs	Presence on this list shows that the chemical is already regulated. Experience shows that chemicals with regulations are more likely to be regulated further.	Yes	Data were loaded from EC scanning database.
17.	ODSs Class I or II	Presence on this list shows that chemical is already regulated. Experience shows that chemicals with regulations are more likely to be regulated further.	Yes	Data were loaded from EC scanning database.
18.	PELs	Presence on this list shows that the chemical is already regulated. Experience shows that chemicals with regulations are more likely to be regulated further; however, OSHA is typically very slow in regulatory rule makings.	Yes	Data were loaded from EC scanning database.
19.	American Conference of Governmental Industrial Hygienists (ACGIH)	Presence on this list shows that a non-regulatory industrial hygiene guideline has been established. The ACGIH guidelines may, however, be used under the general duty clause. It is also the policy of the Army and Air Force to follow ACGIH guidelines when they are more stringent than OSHA regulatory values.	No	Data are only available at cost.
20.	Stockholm Convention POPs	Presence on this list shows a commitment by signatory nations to eliminate or reduce the release of these chemicals into the environment. Experience shows that chemical with international attention are more likely to be regulated further.	Yes	Data were loaded from EC scanning database.

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Item	Data Source Name	Purpose	Data Loaded?	Data Loading Source/Status Note
21.	IRIS	Presence on this list shows that the chemical has already been evaluated for potential toxicity and that toxicity benchmarks have been established where possible. Experience shows that chemicals with IRIS values are more like to be regulated further than chemicals without IRIS values. Changes in IRIS values are often precursors to movement in other risk-based regulations.	Yes	Data were loaded from EC scanning database.
22.	NTP Testing Program, Report on Carcinogens 11 th Edition	Presence on this list shows that the chemical is (or was) being evaluated for potential toxicity. Since chemicals are nominated to the NTP, there is an existing case for hazard identification. Classification of a substance as a carcinogen can influence the direction of other regulations.	Yes	Data were loaded from EC scanning database.
23.	CalEPA, Proposition 65	Presence on this list shows that the chemical was evaluated for potential toxicity. This may lead to further regulation within the state of California.	Yes	New list of chemicals acquired from California web site dated 28 September 2007
24.	Under Evaluation for CalEPA, Proposition 65	Presence on this list shows that the chemical is undergoing an initial or reevaluation for potential toxic effects within the state of California. This may lead to new or further regulation by the state.	No	Not needed. CalEPA, Proposition 65 List is available, 28 September 2007
25.	Toxic Substance Control Act (TSCA) Interagency Testing Committee	Presence on this list shows that the chemical was evaluated for potential toxicity. This is a very early stage for potential regulation by the USEPA under the TSCA.	No	Cannot acquire database in a loadable format
26.	USEPA PBT Chemicals List	Presence on this list shows that chemical underwent an evaluation of its toxicity and was determined to be associated with a range of adverse human health effects, including effects on the nervous system, reproductive and developmental problems, cancer and genetic impacts.	Yes	Used data from NAVSEA TCL database
27.	USEPA PPRTVs	Presence of a provisional toxicity value indicates that the USEPA has no official agency position but that the chemical has been found to be a potential risk driver at a Superfund site.	Yes	Data received from CHPPM and loaded

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Item	Data Source Name	Purpose	Data Loaded?	Data Loading Source/Status Note
28.	USEPA Cancer Classifications	This data will be used to identify chemicals that are known or suspected carcinogens	Yes	Data obtained from Oak Ridge National Laboratory's Risk Assessment Information System (RAIS) web site, toxicity metadata subsection.
29.	USEPA Region III Risk-Based Concentrations Table	The data are used to examine the relative toxicity of chemicals to one another.	Yes	Data loaded from EC scanning database
30.	California Toxicity Criteria Database	The data are used to examine the relative toxicity of chemicals to one another. This table will supplement the IRIS.	Yes	Data loaded from the state's web site. Latest file dated 12 June 2007
31.	CalEPA, Proposition 65	This list is used to identify the chemicals that are considered by the state of California to cause cancer, developmental or reproductive effects.	Yes	New list of chemicals acquired from California web site dated 28 September 2007
32.	CDC NBP National Report on Human Exposure to Environmental Chemicals, 2 nd Report	Presence on this list shows that the chemical is being evaluated for its presence in the national population. Since chemicals are nominated to the CDC's NBP, there is an existing case for hazard identification.	Yes	Data loaded from EC scanning database
33.	IARC (Confirmed and Suspected Carcinogens List)	Presence on this list shows that the chemical was evaluated for potential toxicity and found to have significant potential for being a carcinogen.	Yes	Used data from NAVSEA TCL database
34.	USEPA PPRTVs	The data are used to examine the relative toxicity of chemicals to one another.	Yes	Data received from CHPPM and loaded
35.	CHPPM Terrestrial Toxicity Database	Data will be used to gauge toxicity to non-human receptors.	Yes	Data received from CHPPM, database version 2D
36.	Water solubility	High water solubility may indicate that the material can easily be transported from the range via soil, groundwater or surface water to a potential receptor.	Yes	Data loaded from RAIS web site
37.	log K _{ow}	A high K _{ow} indicates that the chemical may bioaccumulate in the tissues of animals or humans and may move through the food chain.	Yes	Data loaded from RAIS web site

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Item	Data Source Name	Purpose	Data Loaded?	Data Loading Source/Status Note
38.	Volatile	Highly volatile chemicals are unlikely to remain in soil or water. In accordance with RAGS Part B, chemicals with HLCs > 1E-5 <u>and</u> molecular weight < 200 are marked as VOCs.	Yes	Data loaded from RAIS web site
39.	Environmental Persistence > X	A high persistence means that the chemical will likely remain in the environment; the longer a chemical is in the environment, the more likely a receptor may be exposed. A data source and a standard measurement for determining environmental persistence was not determined.	No	No database located with downloadable option. USEPA's PBT Profiler may be an option for analysis of top ECs once identified but it does not allow for downloading data.
40.	DoD EC WL	Presence on this list shows that the chemical has been identified as an EC of importance to the DoD.	Yes	Pulled data from EC Portal
41.	DoD EC AL	Presence on this list shows that the chemical has been identified as an EC of significant importance to the DoD.	Yes	Pulled data from EC Portal
42.	REG survey, Table 2-1	Presence on this list shows that the chemical has been identified as a potential EC with regulatory significance to ranges.	Yes	Loaded Table 2-1 from survey Report
43.	REG survey, Table 2-2	Presence on this list shows that the chemical has been identified by range managers as a potential EC with significance to ranges.	Yes	Loaded Table 2-2 from survey Report
44.	MIDAS database	Chemicals listed in MIDAS are known to be present in one or more munitions items. The presence of the chemical in a munitions item is a reasonable link to its potential for use on a range.	Yes	Data from MIDAS loaded
45.	Army Range Testing List	The AEC has a test program to identify and quantify the emissions that result from weapons firing and from the use of pyrotechnic devices. The presence of the chemical on this list is a reasonable link to its potential for use on a range.	Yes	Loaded Table 1 from <i>Data Gap Analysis and Database Expansion of Parameters for Munitions Constituents</i> , ERDC/EL TR-05-16, 2005
46.	RDT&E Chemicals	Chemicals identified that are being tested for future use on munitions and may present an issue in the future	No	None were submitted after discussions with the RDT&E community.

Note: Shaded data sources were not selected for analysis.

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