United States Environmental Protection Agency

ChemView: EPA's Web Tool for TSCA Chemicals

Society for Chemical Hazard Communication Meeting, Charleston, SC

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AGENDA

- Background
- Purpose of ChemView
- Content
- Who Does ChemView Help?
- Searching the database
- Future Implementation Areas
- Seeking Feedback

BACKGROUND

- Increasing transparency is a key element of EPA's chemicals management program
- Previously, EPA had multiple databases with various TSCA chemical information
  - Information was difficult to find and use
- Stakeholders indicated a strong interest in viewing EPA's TSCA "file cabinet"
- In 2012 we made the decision to bring together information EPA has received or developed about chemicals regulated under TSCA in one place: ChemView.

Purpose of ChemView

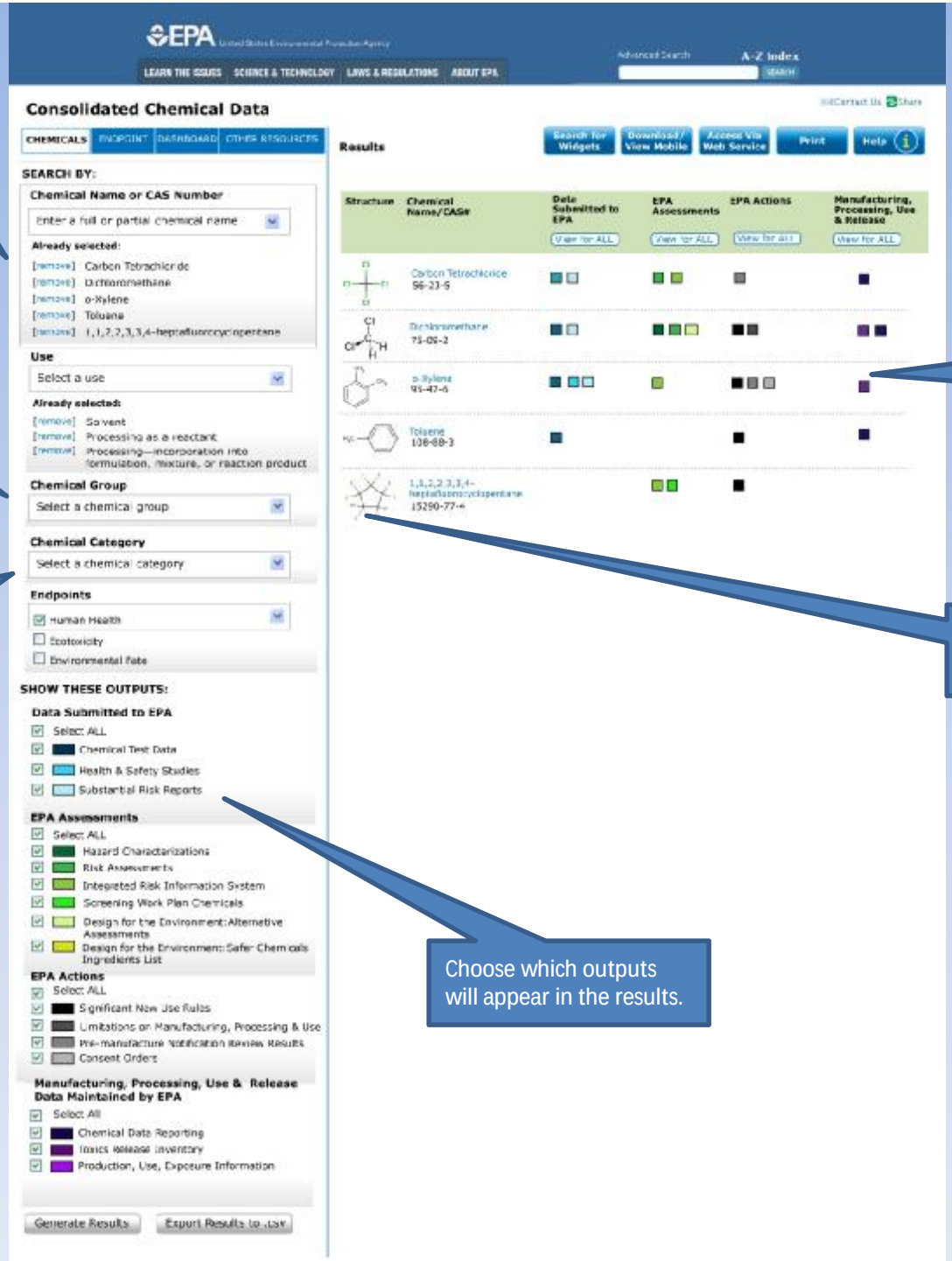
- To improve and streamline public access to information on TSCA chemicals
- Features of the database
  - Easy to use
    - One screen: search parameters on the left; search results on the right
  - Ability to search with multiple parameters (chemical name, use, category, endpoint)
  - Summary and in-depth levels of detail on TSCA chemicals

CONTENT

- ChemView reflects four key types of information:
  - Data submitted to EPA under TSCA
    - Test data
    - Health and safety studies
    - Substantial risk reports
  - EPA-developed assessments
    - Hazard Characterizations (HCs), Alternative Assessments, Safer Chemicals Ingredients List (SCIL), IRIS
  - EPA actions
    - Rules (e.g., SNURs) and other actions
  - Manufacturing, Processing, Use and Release Data
    - Chemical Data Reporting, Toxics Release Inventory
- Phased approach to entering data; currently ~1,500 chemicals
  - EPA will add chemicals and functionality regularly

WHO DOES CHEMVIEW HELP?

- Chemical Users – EPA's target audience
  - Processors, formulators, distributors can compare available data on multiple chemicals
  - Promotes informed decision making and safer chemical choices by chemical user community
- Additional Users
  - Risk Assessors
    - Ready access to publicly available screening level information, as well as source documents
  - Risk Communicators
    - At a glance results on the information EPA has on TSCA chemicals
    - Data provided to EPA on health/environmental effects; EPA assessments of chemicals (e.g., HCs, alternative assessments); regulatory information



Search Criteria

Note: These are "and" criteria

Chemical groups such as Design for Environment: Safer Chemical Ingredient List

Chemical categories such as anilines or cobalt compounds

Results are color-coded against the selections in the Output section.

Thumbnail of chemical structure is displayed.

Choose which outputs will appear in the results.

ChemView Highlights

Chemical "home page" describes available info

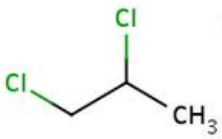
Structure

Output type

Effects and number of endpoint test submissions

Chemical name and synonyms

Print



1,2-Dichloropropane

Propane, 1,2-dichloro-
1,2-Dichloropropane (as impurity only; no longer cleared as inert)
1,2-Dichloropropane, dry weight
Dichloropropane
Dichloropropanes
Octachlorodibenzofuran
Propylene dichloride
Propylenedichloride

CAS #:
78-87-5

Data Submitted to EPA
Chemical Test Rule Data
- Ecotoxicity
  - Acute aquatic toxicity (3)
  - Chronic aquatic toxicity (1)
- Human Health
  - Developmental toxicity (1)
  - Metabolism and Pharmacokinetics (3)
  - Mutagenicity/Genetic toxicity (1)
  - Neurological toxicity (1)
  - Reproductive toxicity (1)

High Production Volume Information System
- HPVIS

EPA Assessments
Integrated Risk Information System
- IRIS

Manufacturing, Processing, Use, and Release Data Maintained by EPA
Chemical Data Reporting
- DOW CHEMICAL CO
- DOW CHEMICAL CO
- DOW CHEMICAL CO

Toxics Release Inventory
- TRI

ChemView Highlights

First layer of results include:

Quick view of all results under one type of endpoint

Print

1,2-Dichloropropane

78-87-5

Acute aquatic toxicity

Study Type	Study Results	Type of Testing Submitted	Testing Other	Year Study Performed	Duration of Study	Number of Organisms per Group	Test Substance Purity/Composition	Doses/Concentrations	Results based on Critical Effect	Exposure Period
Acute Toxicity to Mysid Shrimp- Flow Through	96-h LC50 = 24.79 mg/L (< 24-hour old mysids); 96-h LC50 > 26.65 mg/L (3-4 day old mysids); NO	Required Test Rule Testing	40 CFR 797.1930; OSG's protocol: "1,2-Dichloropropane: Acute Toxicity to Mysid Shrimp (Mysidopsis ba	November 6, 1988	96 hours	40; concentration; 20/age group (< 24 hours old or 3-4 days old)	99.9%	0, 6.5, 10.8, 18, 30, 50 mg/L (nominal); 0.16, 4.92, 6.89, 10.88, 18.42, or 26.65 mg/L (measured)	The concentration calculated to cause death of 50% of the mysid population was 24.79 mg/L (24-hours	96 hours
Acute Toxicity to Algae- closed system	NOEC = 10 mg/L; EC = Not determined	Required Test Rule Testing	40 CFR 797.1050; Environmental Effects Test Guidelines Subpart B, Section 797.1050	July 8, 1988	14 days (5 days exposure + 9 days recovery)	10 flasks/concentration (3 flasks/ concentration/time point); initial concentration = 77,000 cells/ml	99.9% active ingredient	0, 10, 18, 32, 56, 100 mg/L (nominal)	The test substance was not toxic to algae at 10 mg/L. At higher concentrations, it was not possible	5 days
Acute Toxicity to Algae- closed system	NOEC = 1000 mg/L; EC = Not determined	Required Test Rule Testing	40 CFR 797.1050; Environmental Effects Test Guidelines Subpart B, Section 797.1050	June 17, 1988	14 days (5 days exposure + 9 days recovery)	10 flasks/concentration (3 flasks/ concentration/time point); initial concentration = 10,000 cells/ml	99.9% active ingredient	0, 100, 180, 320, 560, 1000 mg/L (nominal)	The test substance was not toxic to algae.	5 days

LEGEND

TR: Test Rule
ECA: Enforceable Consent Agreement
HPVC: High Production Volume Challenge
VCCEP: Voluntary Children's Evaluation Program
§5: New Chemical Data
§8(d): Health and Safety Studies
§8(e): Substantial Risk Notice

Show Output Selection

ChemView Highlights

Second layer of results include:

Link to full source document

Chemical information

Short summary and description by effect, endpoint, and testing submission

Print

Chemical Test Rule Data

View Full Test

Chemical Name : 1,2-Dichloropropane
CAS Number : 78-87-5
Federal Register Citation : 69FR22402; 51FR32079; 52FR37138;
Code Federal Regulation : 40 CFR 799.1550; 40 CFR 799.5115;

Ecotoxicity:

- Acute aquatic toxicity
  - Study Type : Acute Toxicity to Mysid Shrimp- Flow Through
  - Type of Testing Submitted : Required Test Rule Testing
  - Testing Other : 40 CFR 797.1930; ESE's protocol: "1,2-Dichloropropane: Acute Toxicity to Mysid Shrimp (Hysidopsis bahia) under Flow-Through Conditions."
  - Good Lab Practices
    - Yes
  - Year Study Performed : November 8, 1988
  - Was the Study
    - Measured
  - Duration of Study : 96 hours
  - Species
    - Mysid shrimp (Mysidopsis bahia)
  - Number of Organisms per Group : 40/concentration; 20/age group (< 24 hours old or 3 - 4 days old)
  - Test Substance Purity/Composition : 99.9%
  - Doses/Concentrations : 0, 6.5, 10.8, 18, 30, 50 mg/L (nominal); 0.16, 4.92, 6.89, 10.88, 18.42, or 26.65 mg/L (measured)
  - Route
    - Water
  - Exposure Period : 96 hours
  - Results based on Critical Effect : The concentration calculated to cause death of 50% of the mysid population was 24.79 mg/L (24-hours old) or > 26.65 mg/L (3-4 days old). The test substance was not toxic to shrimp at 4.92 mg/L.
  - Study Results : 96-h LC50 = 24.79 mg/L (< 24-hour old mysids); 96-h LC50 > 26.65 mg/L (3-4 day old mysids); NOEL = 4.92 mg/L 3-4 day old mysids; 96-h LC50 > 26.65 mg/L; NOEL = 4.92 mg/L.

ChemView Highlights

Source document

40-8867156

DOW THE DOW CHEMICAL COMPANY

MIDLAND, MICHIGAN 48674

EPA-OTS

000612846R

40-8900000079

November 17, 1988

TSCA Document Processing Center (TS-790)
Office of Toxic Substances
Environmental Protection Agency
401 M Street, SW; Room L-100
Washington, DC 20460

88 NOV 22 AM 9:09

FINAL STUDY REPORTS
1,2-DICHLOROPROPANE(CAS REGISTRY NO. 78-87-5)
40 CFR 799.1550

Dear Sir or Madam:

As required by 40 CFR 799.5 and 40 CFR 799.1550, we are herewith submitting final study reports for the following test effects:

1. Daphnid: Chronic Toxicity
2. Mysid Shrimp: Acute Toxicity
3. Algae: Acute Toxicity to Diatoms
4. Algae: Acute toxicity to Selenastrum capricornutum
5. Neurotoxicity

Please call if you have questions.

Very truly yours,

Robert L. Hagerman
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Regulatory Compliance
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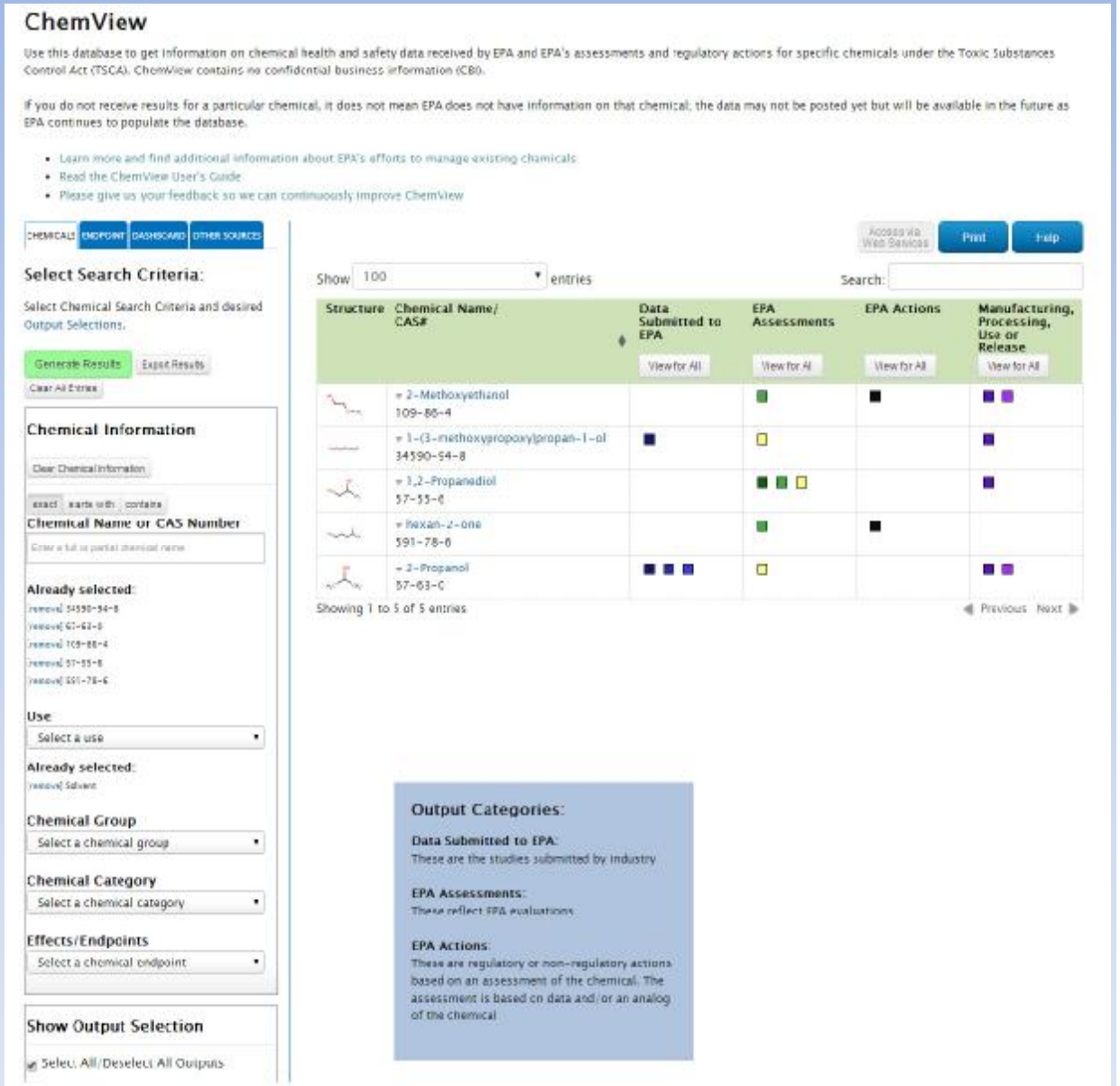
lkr

cc: Lynn Marcus, TSCA Docket Office (TS-793)

CONTAIN NO CBI

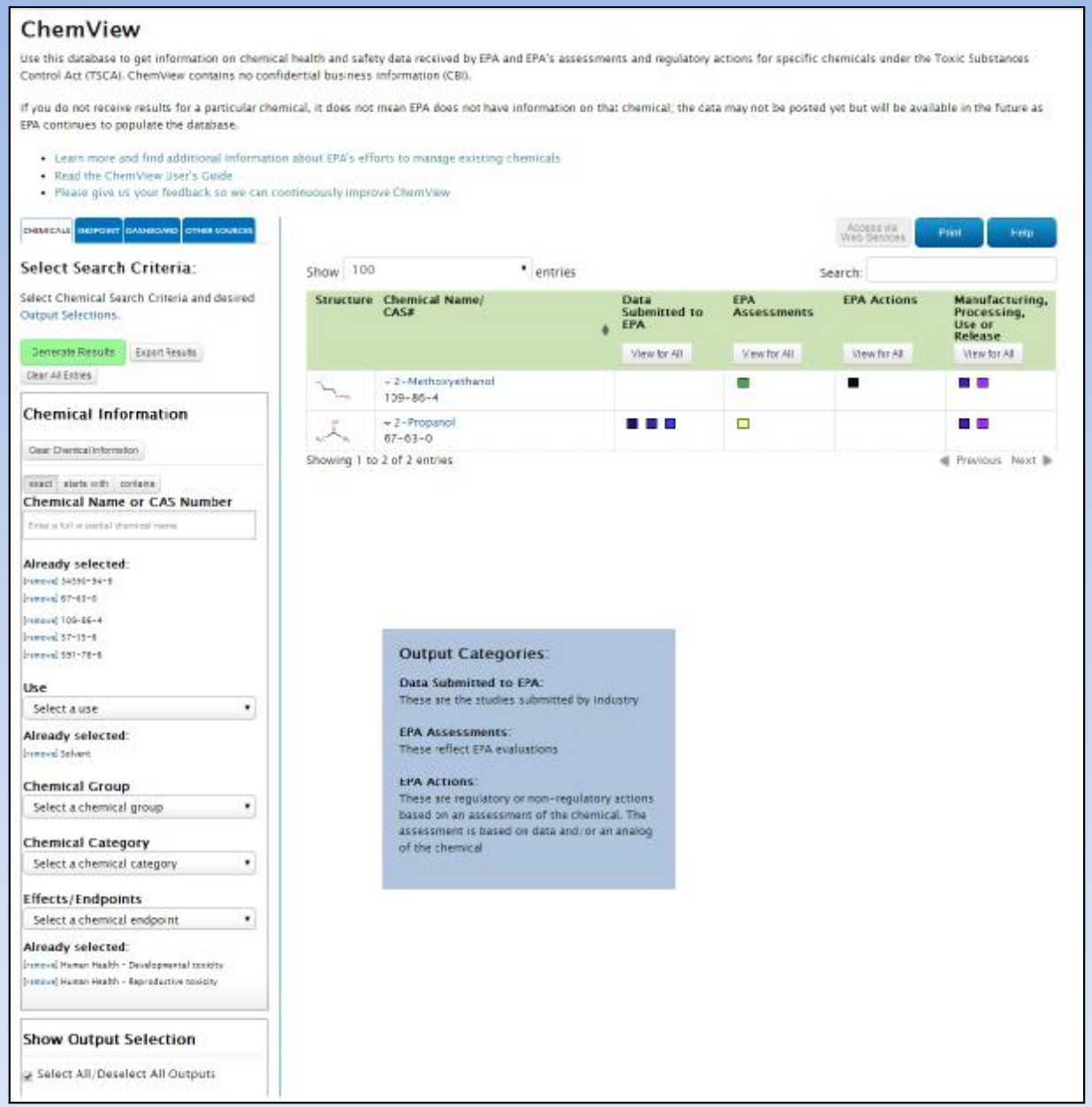
ChemView Highlights

Example of USE selection with across the board results – Solvent



ChemView Highlights

Example of USE (Solvent) and Endpoint selection for developmental/ reproductive selection with across the board results



Future Implementation Areas

- Add content
- Enhance search capabilities for specific audiences
- Enhance scope through tabs to related chemical information (EPA, Federal, International)
- Continue outreach and solicit feedback
- Infrastructure enhancements
  - One EPA portal for chemical safety.

SEEKING FEEDBACK

- Planned survey to seek feedback from users later this Spring.
- Comment feature built into the web site. EPA encourages comments/suggestions for improvements.

www.epa.gov/chemview

Thank you!