



CHEMVIEW: EPA's WEB TOOL FOR TSCA CHEMICALS

SOCIETY FOR CHEMICAL HAZARD COMMUNICATION MEETING, CHARLESTON, SC

Sheila Canavan, Associate Director
Chemical Control Division, Office of Chemical Safety
and Pollution Prevention
U.S. EPA

| March 25, 2014 |



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

 United States Environmental Protection Agency

Advanced Search A-Z Index

LEARN THE ISSUES SCIENCE & TECHNOLOGY LAWS & REGULATIONS ABOUT EPA

Consolidated Chemical Data

[CHEMICALS](#) [ENDPOINT](#) [DASHBOARD](#) [OTHER RESOURCES](#)

SEARCH BY:

Chemical Name or CAS Number
Enter a full or partial chemical name

Already selected:
[\[remove\]](#) Carbon Tetrachloride
[\[remove\]](#) Dichloromethane
[\[remove\]](#) o-Xylene
[\[remove\]](#) Toluene
[\[remove\]](#) 1,1,2,2,3,3,4,4-heptafluorocyclopentane

Use
Select a use

Already selected:
[\[remove\]](#) Solvent
[\[remove\]](#) Processing as a reactant
[\[remove\]](#) Processing-incorporation into formulation, mixture, or reaction product

Chemical Group
Select a chemical group

Chemical Category
Select a chemical category

Endpoints
☒ Human Health
☐ Ecotoxicity
☐ Environmental Fate

SHOW THESE OUTPUTS:

Data Submitted to EPA
☒ Select ALL
☐ Chemical Test Data
☒ Health & Safety Studies
☒ Substantial Risk Reports

EPA Assessments
☒ Select ALL
☒ Hazard Characterizations
☒ Risk Assessments
☒ Integrated Risk Information System
☒ Screening Work Plan Chemicals
☒ Design for the Environment: Alternative Assessments
☒ Design for the Environment: Safer Chemicals Ingredients List


























EPA Actions
☒ Select ALL
☒ Significant New Use Rules
☒ Limitations on Manufacturing, Processing & Use
☒ Pre-manufacture Notification Review Results
☒ Consent Orders

Manufacturing, Processing, Use & Release Data Maintained by EPA
☒ Select All
☒ Chemical Data Reporting
☒ Toxic Release Inventory
☒ Production, Use, Exposure Information

[Generate Results](#) [Export Results to .csv](#)

Results

[Search for Widgets](#) [Download / View Mobile](#) [Access Via Web Service](#) [Print](#) [Help](#)

Structure	Chemical Name/CAS#	Date Submitted to EPA View for ALL	EPA Assessments View for ALL	EPA ACTIONS View for ALL	Manufacturing, Processing, Use & Release View for ALL
	Carbon Tetrachloride 56-23-5				
	Dichloromethane 75-09-2				
	o-Xylene 95-47-6				
	Toluene 108-88-3				
	1,1,2,2,3,3,4,4-heptafluorocyclopentane 15280-77-6				

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

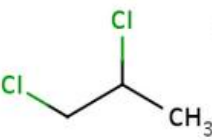
Chemical "home page" describes available info

Structure

Output type

Effects and number of
endpoint test
submissions

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](#)

Chemical name and
synonyms

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 = 24.75 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 797.1050; GSDs protocol "1,2-Dichloropropane: Acute Toxicity to Mysid Shrimp-Flow Through"	November 8, 1988	96 hours	40/concentration; 20/age group (< 24 hours old or 3-4 days old)	99.9%	0, 6.5, 10.8, 18, 26, 99 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 24.75 mg/L (24-hours)	96 hours
Acute Toxicity to Algae- closed system	NOEC = 18 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)	18 flasks / concentration (3 flasks / concentration/time point; initial concentration = 77,000 cells/mL)	99.9% active ingredient	0, 18, 36, 55, 100 mg/L (nominal)	The test substance was not toxic to algae at 18 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)	18 flasks / concentration (3 flasks / concentration/time point; initial concentration = 18,000 cells/mL)	99.9% active ingredient	0, 100, 180, 120, 560, 1000 mg/L (nominal)	The test substance was not toxic to algae.	8 days

LEGEND

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

Show Output Selection

ChemView Highlights

Link to full source document

Second layer of results include:

Chemical information

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

Print

[View Full Test](#)

Chemical Test Rule Data

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 48074

November 17, 1988

EPA-OTS
000612846R
40-390000879

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

30 NOV 22 AM 9:09
OTS DOCUMENT CONTROL
OFFICE

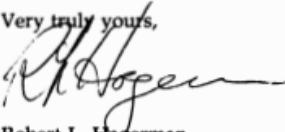
FINAL STUDY REPORTS
1,2-DICHLOROPROPANE (CAS REGISTRY NO. 78-87-5)
40 CFR 799.1550

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
Research Associate
Regulatory Compliance
Health and Environmental Sciences
1803 Building
(517) 636-6855

lkr

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

NOV 24 1988
IN MARI

CONTAIN NO CBI

ChemView Highlights

Example of USE selection
with across the board
results – Solvent

ChemView

Use this database to get information on chemical health and safety data received by EPA and EPA's assessments and regulatory actions for specific chemicals under the Toxic Substances Control Act (TSCA). ChemView contains no confidential business information (CBI).

If you do not receive results for a particular chemical, it does not mean EPA does not have information on that chemical; the data may not be posted yet but will be available in the future as EPA continues to populate the database.

- Learn more and find additional information about EPA's efforts to manage existing chemicals
- Read the ChemView User's Guide
- Please give us your feedback so we can continuously improve ChemView

CHEMICALS

ENDPOINTS

DASHBOARD

OTHER SOURCES

Select Search Criteria:

Select Chemical Search Criteria and desired Output Selections.

Generate Results

Export Results

Clear All Entries

Chemical Information

Clear Chemical Information

exact

starts with

contains

Chemical Name or CAS Number

Enter a full or partial chemical name

Already selected:

remove

 54590-54-8

remove

 61-62-8

remove

 109-88-4

remove

 57-55-8

remove

 551-78-6

Use

Select a use

Already selected:

remove

 Solvent

Chemical Group

Select a chemical group

Chemical Category

Select a chemical category

Effects/Endpoints

Select a chemical endpoint

Show Output Selection

Selected

 All/Deselect All Outputs






Access via Web Services

Print

Help

Show 100 entries

Search:

Structure	Chemical Name/ CAS#	Data Submitted to EPA	EPA Assessments	EPA Actions	Manufacturing, Processing, Use or Release
		<div>View for All</div>	<div>View for All</div>	<div>View for All</div>	<div>View for All</div>
	<div>2-Methoxyethanol</div> <div>109-88-4</div>		<div></div>	<div></div>	<div></div> <div></div>
	<div>1-(3-methoxypropoxy)propan-1-ol</div> <div>34590-54-8</div>	<div></div>	<div></div>		<div></div>
	<div>1,2-Propanediol</div> <div>57-55-8</div>		<div></div> <div></div> <div></div>		<div></div>
	<div>Hexan-2-one</div> <div>591-78-6</div>		<div></div>	<div></div>	
	<div>2-Propanol</div> <div>57-63-0</div>	<div></div> <div></div> <div></div>	<div></div>		<div></div> <div></div>

Showing 1 to 5 of 5 entries

Previous

Next

Output Categories:

Data Submitted to EPA:

These are the studies submitted by industry

EPA Assessments:

These reflect EPA evaluations

EPA Actions:

These are regulatory or non-regulatory actions based on an assessment of the chemical. The assessment is based on data and/or an analog of the chemical

ChemView Highlights

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

ChemView

Use this database to get information on chemical health and safety data received by EPA and EPA's assessments and regulatory actions for specific chemicals under the Toxic Substances Control Act (TSCA). ChemView contains no confidential business information (CBI).

If you do not receive results for a particular chemical, it does not mean EPA does not have information on that chemical, the data may not be posted yet but will be available in the future as EPA continues to populate the database.

- Learn more and find additional information about EPA's efforts to manage existing chemicals
- Read the ChemView User's Guide
- Please give us your feedback so we can continuously improve ChemView



[CHEMICALS](#) [REPORT](#) [DASHBOARD](#) [OTHER SOURCES](#)

Access via Web Services

Print

Help

Show 100 entries Search:

Structure	Chemical Name/ CAS#	Data Submitted to EPA	EPA Assessments	EPA Actions	Manufacturing, Processing, Use or Release
	2-Methoxyethanol 109-86-4	View for All	View for All	View for All	View for All
	2-Propanol 67-63-0	View for All	View for All	View for All	View for All

Showing 1 to 2 of 2 entries

Previous Next

[exact](#) [starts with](#) [contains](#)

CLEAR Chemical Information

Chemical Name or CAS Number

Enter a full or partial chemical name

Already selected:

[removed] 14595-94-8

[removed] 67-63-0

[removed] 109-86-4

[removed] 37-15-8

[removed] 591-78-8

Use

Select a use

Already selected:

[removed] Solvent

Chemical Group

Select a chemical group

Chemical Category

Select a chemical category

Effects/Endpoints

Select a chemical endpoint

Already selected:

[removed] Human Health - Developmental toxicity

[removed] Human Health - Reproductive toxicity

Show Output Selection

☒ Select All/ Deselect All Outputs

Output Categories:

Data Submitted to EPA:

These are the studies submitted by industry

EPA Assessments:

These reflect EPA evaluations

EPA ACTIONS:

These are regulatory or non-regulatory actions based on an assessment of the chemical. The assessment is based on data and/or an analog of the chemical



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!