

## Introduction

The Health, Safety and Environment Department (HSE) has made available to all City Colleges of Chicago students, faculty, and employees an online Safety Data Sheet (SDS) database – ChemWatch. ChemWatch provides a database of both vendor SDS and independently researched ChemWatch SDS, in addition to its services including chemical management, risk assessment, and regulatory databases.

### How to access:

1. Go to <http://www.ccc.edu/labsafety>
2. Click on “ChemWatch SDS Lookup” from the quick link menu.

**Note:** to access an older version of this application ChemWatch Gold 3, click [here](#).

## 1. Quick Start

### Step 1

1 Select “Materials”

2 Select the desired type of report

3 Enter the name of the chemical

4 Select “Full”

5 Click “SEARCH”

### Step 2

6 Select the correct chemical

GROUP	Track	Part No.	Material Name	CwNumber: 1846 Has Gold MSDS: <input checked="" type="checkbox"/>	Synonym	Preferred names
			carbon tetrachloride			
			Merck Carbon Tetrachloride for Spectroscopy Uvasol		CARBON TETRACHLORIDE	

Step 3

Search Full - Name: carbon tetrachloride > Document: carbon tetrachloride (GOLD)

Merck Co

Chemwatch: 1846  
Version No: 9.1.1.1  
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Print Date: 02  
Issue Date: 01  
L.GHS USA.EN

**SECTION 1 Identification of the substance / mixture and of the company / undertaking**

**Product Identifier**

Product name:	CARBON TETRACHLORIDE
Chemical Name:	carbon tetrachloride
Synonyms:	Benzinoform, CCl <sub>4</sub> , Carbon Tet, Carbona, Fasciolin, Flukoids, Necatorina, Necatorine, Tetrafinol, Tetraform, Tetrasol, Univerm Vermoestricid, carbon chloride, methane tetrachloride, perchloromethane, tetrachlorocarbon, tetrachloromethane
Proper shipping name:	CARBON TETRACHLORIDE
Chemical formula:	CCl <sub>4</sub>
Other means of identification:	Not Available
CAS number:	56-23-5

Click "Maximize" to maximize SDS screen.

Step 4

Search Full - Name: carbon tetrachloride > Document: carbon tetrachloride (GOLD)

Merck Co

Chemwatch: 1846  
Version No: 9.1.1.1  
Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Print Date: 02  
Issue Date: 01  
L.GHS USA.EN

**SECTION 1 Identification of the substance / mixture and of the company / undertaking**

**Product Identifier**

Product name:	CARBON TETRACHLORIDE
Chemical Name:	carbon tetrachloride
Synonyms:	Benzinoform, CCl <sub>4</sub> , Carbon Tet, Carbona, Fasciolin, Flukoids, Necatorina, Necatorine, Tetrafinol, Tetraform, Tetrasol, Univerm Vermoestricid, carbon chloride, methane tetrachloride, perchloromethane, tetrachlorocarbon, tetrachloromethane
Proper shipping name:	CARBON TETRACHLORIDE
Chemical formula:	CCl <sub>4</sub>
Other means of identification:	Not Available
CAS number:	56-23-5

Click "Clear" to empty the search box.

Click "Close" once you find the information you need before starting a new search.

## 2. Overview

GoldFFX consists of seven main user interface (UI) modules. For the purpose of this tutorial, you will only use the Materials module. The new user interface is now available in 40 different languages. You can easily change the language by selecting "UI Language".

### 2.1 Overview of the Materials Module

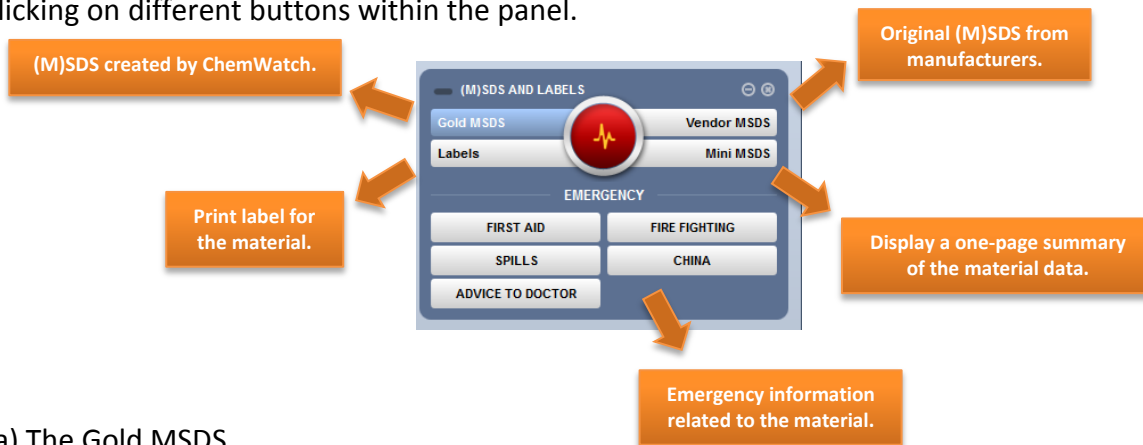
The Materials Module consists of several elements:

The screenshot below illustrates the basic components of the ChemWatch interface.

The screenshot displays the ChemWatch GOLD FFX interface. On the left is a sidebar with navigation options like Materials, Folders, Manifest, Risk Assess., and D-Gen Lab. The main area shows a search for 'acetylcholine' with a 'Search Panel' (2) and a 'Report Panel' (1). The report panel displays product information for acetylcholine, including synonyms, shipping name, chemical formula, and CAS number. A toolbar (3) at the top right includes Print, Send to, and Save. A language and GHS settings bar (4) is at the top. A legend box explains that 'Full' refers to the ChemWatch database and 'Own' refers to the user's own database.

#### 2.1.1 Report Panel

Report panel allows you to determine the types of data, information, and report to display by clicking on different buttons within the panel.



##### (a) The Gold MSDS

The Gold MSDS are created by ChemWatch. A standard SDS consists of 16 different sections.

**Note:** a Gold Long/Short option is no longer available for GOLD FFX. To view a briefer version of (M)SDS, try searching with the Mini MSDS.

##### (b) The Vendors MSDS

The Vendors MSDS are original safety data sheets provided by the manufacturers.

## (i) Sorting

A search for Vendors MSDS of a chemical can give you many results. Sorting based on Name, Vendor, Type, Language, Country, Source Type, and Issue Date allows you to select for the most appropriate content.

Source Type Primary refers to SDSs directly from the manufacturers.

Secondary refers to SDSs from other sources such as internet.

**Tips:** If you cannot locate the desired information in the GOLD MSDSs (because they are outdated etc.), check the Vendors MSDS. Sorting by Issued Date allows you to quickly locate the most recent MSDSs either from manufacturers or websites.

Sort by Source Type

Track	Part N	Name	Vendor	Type	Language	Country	Source	Issue Date
		carbon tetrachloride	Air Liquide	MSDS	English	United States	Secondary	28/04/2013
		carbon tetrachloride	Ashland	MSDS	English	United States	Secondary	20/10/1991
		Carbon Tetrachloride	USP	MSDS	English	United States	Primary	03/08/2008
		Carbon Tetrachloride	Avantor Performance Materials h	MSDS	English	United States	Secondary	07/12/1996
		CARBON TETRACHLORIDE	Avantor Performance Materials h	MSDS	English	United States	Primary	07/12/1996
		Carbon tetrachloride	Spectrum Chemical Mfg	MSDS	English	United States	Primary	06/01/2009
		CARBON TETRACHLORIDE	Scott Medical Products	MSDS	English	United States	Secondary	26/02/2007

Sort by Issue Date allows you to find the most recent SDSs.

Choose how many results you want to display on each page

## (c) The Mini MSDS

The Mini MSDS provides a one-page summary about the chemical. The Mini MSDS is available in more than 30 languages.

**Tips:** Move your mouse over the pictogram to see a description of the icon.

## (d) Emergency

The Emergency MSDS provides emergency information related to the chemical. The data is divided into five different sections: First Aid, Spills, Fire Fighting, Advice to Doctor, and Chemical Incident Advisory (ChInA) codes.

## (e) Labels

The Labels MSDS provides 30 different printable templates of chemical labels.

(For instruction on how to print, click [here](#).)

## 2 2.1.2 Search Panel

Search Panel allows search by product name, synonym, common name, chemical formula, trade name, or manufacturer's name.

### 3 2.1.3 Toolbars

The toolbars provides language and format options. A variety of languages is available. The GHS tab also allows display in either Local or GHS (“Globally Harmonized System”) format. The Advanced tab provides other options include check boxes to select fields to display in the output report screen, such as NFPA (“National Fire Protection Association”) Diamond and WHMIS (“Workplace Hazardous Materials Information System”) classification.

#### (a) Language

#### (b) GHS (“Globally Harmonized System”) Format

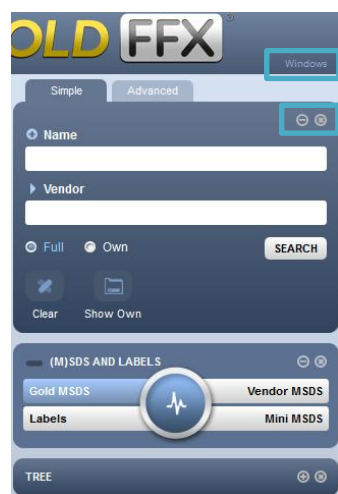
GHS format meets the legal requirement on compliance and standards of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) originally developed by the United Nations. “Local Format” is the old regulation format. In ChemWatch GOLD FFX, GHS format is the default option. You can easily switch back to the old regulation format by clicking on the GHS tab.

#### (c) Advanced Option

Advanced Settings allow you to display or hide fields in the output report screen. For example, you can choose to display NFPA (“National Fire Protection Association”) Diamond and WHMIS (“Workplace Hazardous Materials Information System”) classification in the SDS screen.

Once all the options are chosen, click “SAVE” and the SDS will automatically display in the selected format.

4 2.1.4 Windows

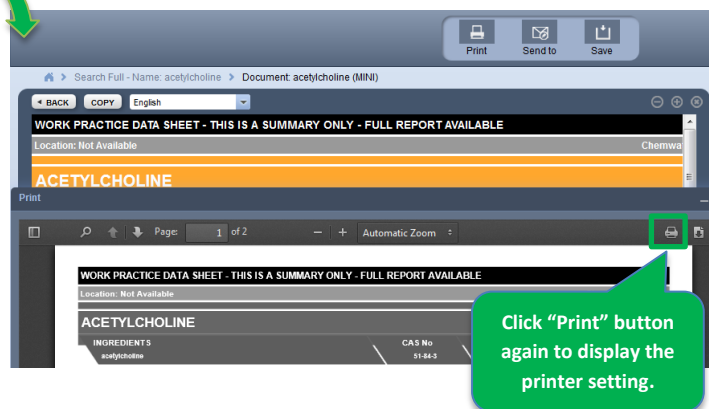
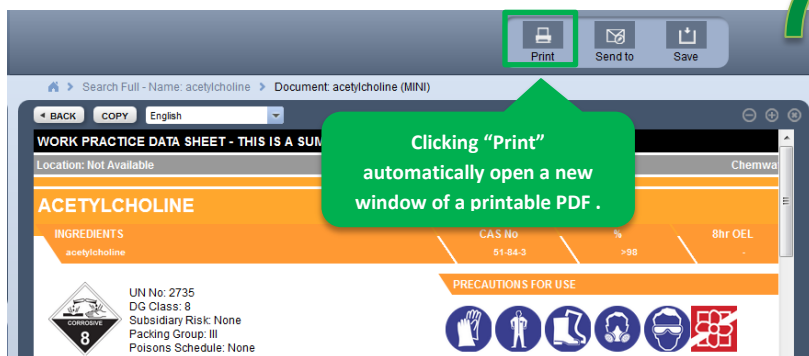


The search/(M)SDS/Tree windows can be maximized/minimized or closed for your convenience.

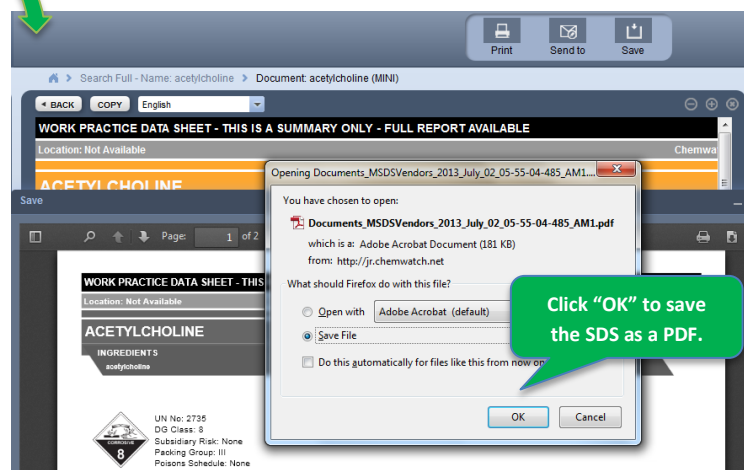
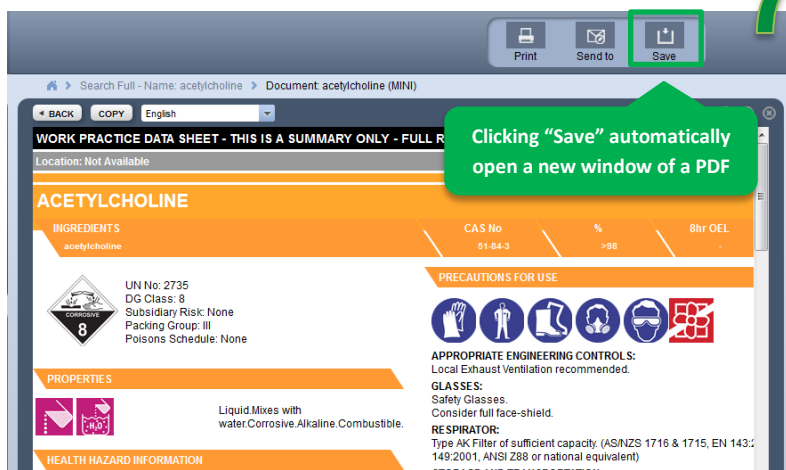
You can restore the closed windows by clicking "Windows" and then select the desired window.

3. How to ...?

3.1 How to print?



3.2. How to save as a PDF?



#### 4. FAQs

##### 4.1 *Why is there a log in screen when I try to access ChemWatch from home?*

ChemWatch recognizes the university's IP address and thus no log-in is required when you are connected to the Hopkins network. If you need to use ChemWatch from off-campus, JHConnect provides access to Hopkins Computing Network resources for remote users. Click [here](#) for more information.

##### 4.2 *What is the difference between "Full" and "Own" in the search panel?*

"Full" comprises the entire ChemWatch database while "Own" display only your registered chemicals. For the purpose of this tutorial, you should ALWAYS use "Full".

##### 4.3 *What is the difference between "Local Format" and "GHS Format"? Which one should I use?*

The Occupational Safety and Health Administration (OSHA) has revised the Hazard Communication Standard (HCS) to align with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS). "Local Format" is the old regulation format. It is highly recommended to use the GHS format. Yet, both formats are legal until the full implementation of regulation in 2016. For more information on GHS, click [here](#).

##### 4.4 *What other information can I get from ChemWatch GoldFFX?*

ChemWatch provides other useful information that oftentimes cannot be found on the label of a chemical package. For example, ChemWatch tells you PVC gloves are much more suitable for handling ethanol than nitrile gloves.

#### Conclusion

At the end of this tutorial, you should be able to pull out various SDSs according to your need. You should also be able to identify the hazardous properties of chemicals that may pose a health, physical or environmental hazard during normal handling or use and to convey information about these hazards using ChemWatch. When in doubt, always use the SDSs as sources of information about hazards and to obtain advice on safety precautions. SDSs are in use globally. So it is useful to have an understanding of the SDS content and format in order to take appropriate action in response to chemical hazards.

Appendix

Example: Gold MSDS for acetylcholine is shown below.

The screenshot shows the ChemWatch GOLD interface. On the left is a navigation sidebar with options like Materials, Folders, Manifest, Risk Assess., and D-Gen Lab. The main content area displays the Gold MSDS for acetylcholine. At the top, it says "ACETYLCHOLINE" and "Not Available Not Available". Below that, it lists Chemwatch: 16622-1, Version No: 5.1.1.1, and Safety Data Sheet according to OSHA HazCom Standard (2012) requirements. A section titled "SECTION 1 Identification of the substance / mixture and of the company / undertaking" is highlighted in orange. Under "Product Identifier", it lists: Product name: ACETYLCHOLINE, Chemical Name: acetylcholine, Synonyms: ACH, C7-H16-N-O2, acecholine, acetyl choline ion, choline acetate, choline, acetyl-, ethanium, 2-(acetoxy)-N,N,N-trimeth, Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S., Chemical formula: C7-H16-N-O2, Other means of identification: Not Available, CAS number: 51-84-3. At the bottom, it says "Relevant identified uses of the substance or mixture and uses advised against".

Example: Vendor MSDS for acetylcholine is shown below.

The screenshot shows the Vendor MSDS for acetylcholine from Sigma-Aldrich. The interface is similar to the Gold MSDS view. The main content area displays "SIGMA-ALDRICH MATERIAL SAFETY DATA SHEET". It includes the date printed (01/22/2009) and date updated (01/31/2006). The section "Section 1 - Product and Company Information" is highlighted. It lists: Product Name: ACETYLCHOLINE BROMIDE, Product Number: A6500, Brand: SIGMA, Company: Sigma-Aldrich, Address: 3050 Spruce Street, SAINT LOUIS MO 63103 US, Technical Phone: 800-325-5832, and Fax: 800-325-5052.

Example: Mini MSDS for acetylcholine is shown below.

The screenshot shows the Mini MSDS for acetylcholine. The interface is similar to the Gold MSDS view. The main content area displays "ACETYLCHOLINE" and "WORK PRACTICE DATA SHEET - THIS IS A SUMMARY ONLY - FULL REPORT AVAILABLE". It includes the location (Not Available) and Chemwatch logo. The "INGREDIENTS" section lists acetylcholine with CAS No 51-84-3, % >98, and 8hr OEL. A hazard pictogram for Corrosive 8 is shown. The "PRECAUTIONS FOR USE" section includes icons for gloves, goggles, and a respirator. The "PROPERTIES" section lists "Liquid.Mixes with water.Corrosive.Alkaline.Combustible.". The "HEALTH HAZARD INFORMATION" section includes "UN No: 2735, DG Class: 8, Subsidiary Risk: None, Packing Group: III, Poisons Schedule: None". It also lists "APPROPRIATE ENGINEERING CONTROL: Local Exhaust Ventilation recommended.", "GLASSES: Safety Glasses. Consider full face-shield.", and "RESPIRATOR: Type AK Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:20149:2001, ANSI Z88 or national equivalent)".



Example: Emergency (Fire Fighting) for acetylcholine is shown below.

Simple | Advanced

Search Full - Name: acetylcholine | Document: acetylcholine (Fire Fighting)

Chemwatch: 16622-1

**Water spray/ fog. - ACETYLCHOLINE**

UN No: 2735  
 Hazchem Code: 2X  
 DG Class: 8  
 Subsidiary Risk: None  
 Packing Group: III  
 Poisons Schedule: Not Available

**PROPERTIES:**

Liquid.  
 Mixes with water.  
 Corrosive.  
 Alkaline.

**EMERGENCY**

FIRST AID | FIRE FIGHTING  
 SPILLS | CHINA  
 ADVICE TO DOCTOR

Example: Labels for acetylcholine is shown below.

Simple | Advanced

Search Full - Name: acetylcholine | Material: acetylcholine | Document: acetylcholine (LABEL)

**ACETYLCHOLINE**  
 INGREDIENTS: acetylcholine, 51-84-3, 98

**Danger**

Hazard Codes/Statements: H314 - Causes severe skin burns and eye damage  
 H318 - Causes serious eye damage  
 H319 - Causes serious eye damage  
 H290 - May be corrosive to metals

Precautionary statement(s) - Prevention:  
 Do not breathe dust/fume/gas/mist/vapour/spray.; Wash ... thoroughly after handling.; Wear protective gloves/protective clothing/eye protection/face protection.; Keep only in original container.

**ACETYLCHOLINE**  
 INGREDIENTS: acetylcholine, 51-84-3, 98

**Danger**

Hazard Codes/Statements: H314 - Causes severe skin burns and eye damage  
 H318 - Causes serious eye damage  
 H319 - Causes serious eye damage  
 H290 - May be corrosive to metals

Precautionary statement(s) - Prevention:  
 Do not breathe dust/fume/gas/mist/vapour/spray.; Wash ... thoroughly after handling.; Wear protective gloves/protective clothing/eye protection/face protection.; Keep only in original container.