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Office Of Air Quality Planning And Standards Research Triangle Park, NC 27711



# Air CHIEF CD-ROM



Emission Factor and Inventory Group Emissions, Monitoring and Analysis Division Office Of Air Quality Planning and Standards U. S. Environmental Protection Agency

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## About Air CHIEF CD-ROM

As a part of its commitment to protecting global air quality, the U. S. Environmental Protection Agency (EPA) is working to provide current emissions data in convenient, easy-to-access formats to federal, state, and local regulatory agencies, businesses, and the general public. An important tool in this effort is the Air Clearing House for Inventories and Emission Factors (Air CHIEF) in compact disc-read only memory (CD-ROM) format.

The Air CHIEF CD-ROM gives the public and private sector users access to air emission data specific to estimating the types and quantities of pollutants that may be emitted from a wide variety of sources. Air CHIEF offers on one disc literally thousands of pages contained in some of EPA's most widely used and requested documents. All of these data may be located efficiently using Air CHIEF's software, to assist in finding and estimating air emissions.

The latest annual update, Air CHIEF Version 6.0, includes existing databases and documents in the form of Portable Document Format (PDF) files which have been formatted using the commercial software product, Adobe Acrobat<sup>®</sup>. The Air CHIEF CD-ROM includes the Acrobat Reader<sup>®</sup> software, which is necessary for viewing PDF files, in both 16-bit and 32-bit Microsoft Windows<sup>TM</sup> formats. The Acrobat Reader<sup>®</sup> is also available for download from the Adobe website in UNIX and Macintosh versions.

# System Requirements

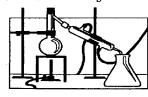
The minimum requirements to run Air CHIEF are an IBM-compatible PC with at least 386 processor (486 processor or better is recommended) and with 8 megabytes of RAM (extended memory). Air CHIEF requires a CD-ROM drive with an interface card and Microsoft CD-ROM extensions, and must be used with the Microsoft Windows interface, version 3.0 or later. Files on the Air CHIEF CD-ROM can be read on UNIX or Macintosh systems using the Acrobat Reader appropriate for these systems, however technical support from EFIG's Info CHIEF help desk will not be provided for these systems.

## Air CHIEF CD-ROM Features

Air CHIEF provides information on air pollutants and emission sources from EPA reports and databases consolidated onto one CD-ROM. These reports and data, as well as the CD-ROM itself, have all been developed by the Emission Factor and Inventory Group (EFIG) of EPA.

#### AP-42 Volume I

EFIG's, Compilation of Air Pollutant Emission Factors, Volume I (AP-42), contains emission factors and descriptions of activities that produce criteria and toxic pollutant emissions for most stationary point and area sources, along with Source Classification Codes (SCCs) for many of these sources. The emission data in the AP-42 document have been gathered from source tests, material balance studies, and engineering estimates. Includes Supplements A, B, C and D, as well as the AP-42 Background Files.



AP-42 Volume II, Tables G-K

OMS's Compilation of Air Pollutant Emission Factors, Volume II (AP-42), contains extensive information about highway vehicle emission factor model (MOBILE5) and emission factor information for a wide range of nonroad mobile sources.

#### EIIP Documents

The Emission Inventory Improvement Program (EIIP) provides guidance on the development of cost-effective, reliable inventories. EIIP documents, the newest addition to Air CHIEF, present preferred and alternative methods for estimating air emissions for many point, area, mobile, and biogenic source categories. EIIP guidance does not replace AP-42, but instead supplements and complements it. Air CHIEF includes links between related EIIP and AP-42 documents for added accessibility.

#### L & E Documents

The document series, Locating & Estimating Emissions For Sources Of...(L & E), is the result of an EPA program to compile and publish information on specific toxic air pollutants and the source categories for which these emissions have been characterized. Each L & E document contains guidelines concerning one specific air toxic pollutant or source and includes general process descriptions, potential release points, and emission factors. Air CHIEF contains the entire contents of 30 L & E documents, covering these toxic air pollutants or sources:

1,3-Butadiene Acrylonitrile Arsenic Benzene Cadmium & Cadmium Compounds Carbon Tetrachloride Chlorobenzenes Chloroform Chromium Chromium Supplement Cvanide Compounds **Epichlorohydrin** Ethylene Dichloride Ethylene Oxide Formaldehyde

Lead Manganese Mercury & Mercury Compounds Methyl Chloroform Methyl Ethyl Ketone Methylene Chloride Nickel Perchloroethylene/ Trichloroethylene Phosgene Polychlorinated Biphenyls (PCB) Polycyclic Organic Matter (POM) Styrene Toluene Vinylidene Chloride Xylene



#### RTECS

The Registry of Toxic Effects of Chemical Substances (RTECS) Chemical Synonyms, compiled by the National Institute of Environmental Health Sciences, provides a reference for pollutants' CAS Registry number, chemical name, atomic number, atomic symbol, RTECS number and chemical synonym.

#### FIRE Version 6.1

The Factor Information Retrieval Data System (FIRE), version 6.1, is a database system which contains EPA's recommended criteria and hazardous air pollutant (HAP) emission estimation factors. The FIRE data files include emission factors for criteria pollutants (CO, SO<sub>2</sub>, NO<sub>x</sub>, Lead, VOCs and PM-10) and Hazardous Air Pollutants (HAP) for both stationary and mobile sources.



## PMCALC, PCBEIS, CHEMDAT8 and WATER8

Installable copies of these MS-DOS programs developed by EPA are also available on the Air CHIEF CD-ROM.

PMCALC is a calculator program applicable to point sources. Users input the SCC code, primary and secondary particulate control device codes and uncontrolled emissions. The program will then calculate controlled emissions for PM-2.5 and PM-10.

PCBEIS 2.2, the Personal Computer version of the Biogenic Emissions Inventory System allows users to estimate hourly emissions of biogenic volatile organic compound and soil nitrogen oxide emissions for any county in the contiguous United States.

CHEMDAT8 is a Lotus 1-2-3® spreadsheet prepared by the EPA's Emission Standards Division that includes analytical models for estimating VOCs from treatment, storage and disposal facility (TSDF) processes.

WATER8 is a menu-driven computer program for estimating emissions from wastewater treatment systems only.

#### SCC/ AMS Codes

Source Classification Codes (SCC) are a numerical classification of air pollutant sources developed by EPA for the Aerometric Information Retrieval System (AIRS) database, the national repository for EPA air pollution data. An SCC characterizes the source of an air pollutant, indicating the industrial process or function within a source category that is associated with a point of air pollutant emissions. Any operation that causes air pollution may be represented by one or more SCCs. Area Mobile Source (AMS) Codes similarly classify mobile or area sources. The Air CHIEF CD-ROM contains a list of over 9,000 SCCs and AMS Codes, which match those found in the AIRS database.

Use the order form on the reverse side of this panel to obtain your copy of the *Air CHIEF* CD-ROM from the U. S. Government Printing Office.

Air CHIEFCD-ROM is also available to Federal, state, and local agencies, by calling the Info CHIEF help desk, (919) 541-5285.

Visit the ClearingHouse for Inventories and Emission Factors (*CHIEF*) website at **www.epa.gov/ttn/chief/** to obtain the latest information, documents and software for emission inventories and factors.

### For More Information

...about *Air CHIEF* and other EPA air emission estimation tools, including the *FIRE* database, AP-42, *TANKS* database, and *CHIEF* website, contact the *Info CHIEF* help desk, (919) 541-5285; fax, (919) 541-5680.

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