



# Arizona Department of Agriculture

1688 W. Adams Street, Phoenix, Arizona 85007  
(602) 542-4373 FAX (602) 542-5420

## Pesticide Information on the World Wide Web

The U.S. Environmental Protection Agency (EPA) is rapidly adding information to the Internet's World Wide Web, as are many other organizations. This fact sheet provides a brief overview of how to access this information, lists some useful web addresses, and is organized according to the following categories: general pesticide regulatory and management; chemical identification; health; environmental; management of pesticide wastes; selected international sites; and bibliographic resources. Due to the dynamic nature of the web, any listing of web sites may quickly become obsolete and some of the links listed below may become inoperable.

### 1. GENERAL PESTICIDE REGULATORY & MANAGEMENT INFO

#### **Environmental Protection Agency**

<http://www.epa.gov>

- Pesticide Information EPA is responsible for reviewing and registering all pesticides intended for sale, distribution and use in the U.S.  
<http://www.epa.gov/pesticides/>
- These fact sheets contain information about specific pesticide chemicals, such as their physical properties, use information, scientific findings and any pertinent regulatory activity. [http://www.epa.gov/pesticides/factsheets/chemical\\_fs.htm](http://www.epa.gov/pesticides/factsheets/chemical_fs.htm)
- For information on a broader spectrum of regulatory actions, see the Regulatory Actions Fact Sheets.  
[http://www.epa.gov/pesticides/factsheets/reg\\_fs.htm](http://www.epa.gov/pesticides/factsheets/reg_fs.htm)

#### **National Pesticide Information Center (NPIC)**

<http://npic.orst.edu/>

The NPIC is a cooperative effort between Oregon State University and EPA which provides general and specific pesticide information to the public, including such topics as: pesticide safety; evaluating personal risk; pesticide labels; food and pesticides; environment and pesticides; pets, wildlife and pesticides; waste disposal

#### **Food Safety**

The "Gateway" to general information about the U.S. government's activities related to food safety may be found at: <http://www.foodsafety.gov/>

#### **Biotechnology**

The Coordinated Framework for the Regulation of Biotechnology <http://usbiotechreg.nbii.gov/>

describes the Federal system for evaluating products developed using modern biotechnology. The Coordinated Framework is based upon health and safety laws developed to address specific product classes. The U.S. Government has written new regulations, policies and guidance to implement these laws for biotechnology as products developed. This framework has allowed the United States to build upon agency experience with organisms and products developed using conventional techniques.

## **U.S. Food and Drug Administration (FDA)**

While EPA is responsible for establishing Maximum Residue Limits (MRLs) for pesticide residues on foods and feed, the Food and Drug Administration is responsible for enforcing them.

FDA's monitoring data are available online at <http://vm.cfsan.fda.gov/~lrd/pestadd.html>

## **U.S. Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS)**

The FSIS is responsible for enforcing the Maximum Residue Limits (MRLs) for pesticide residues on meat and poultry. <http://www.fsis.usda.gov/>

**U.S. Department of Agriculture (USDA) Foreign Agriculture Service (FAS) The International Maximum Residue Limits (MRL) Database** provides users with a list of MRL tolerance by active ingredient to desired export destinations. Users may query by crop, pesticide active ingredient and pesticide type. Over 300 fruit, vegetable and nut commodities are covered, as are 272 pesticides approved by the EPA for use on those commodities in the U.S. MRL data are included from 70 countries, the European Union and the Codex Alimentarius Commission (Codex). Each country included in the database represents, at a minimum, \$1 million in annual export revenue for U.S. horticultural commodities. This database is especially useful for growers, exporters, chemical manufacturers, and regulators as an aid for determining the MRLs of US trading partners. <http://mrldatabase.com/query.cfm?CFID=392516&CFTOKEN=77668739>

## **U.S. Department of Transportation (DOT)**

<http://www.dot.gov>

- **D O T** ' s Hazmat Safety Web site  
<http://hazmat.dot.gov/>
- North American Emergency Response Guidebook (ERG2000)  
<http://hazmat.dot.gov/gydebook.htm>

## **U.S. National Oceanic and Atmospheric Administration (NOAA)**

<http://www.noaa.gov>

- **N a t i o n a l** Ocean Service's Office of Response and Restoration (OR&R)  
<http://response.restoration.noaa.gov/>  
This site contains links to: toxic chemicals in coastal environments; aids for chemical accident & oil spill responders; damage assessment and restoration.

**CAMEO**, or Computer-Aided Management of Emergency Operations, is an integrated set of software modules jointly developed by NOAA and EPA.

<http://www.epa.gov/ceppo/cameo/>

## **2. CHEMICAL IDENTIFICATION**

### **Index of Environmental Chemistry Methods**

<http://www.epa.gov/oppbeadl/methods/ecmla.htm>

### **Food and Drug Administration (FDA)**

#### **- Pesticides and Chemical Contaminants**

<http://vm.cfsan.fda.gov/~lrd/pestadd.html>

**FDA- Pesticide Glossary** - FDA is making available a Glossary of alternative names for pesticides and related chemicals in Adobe Portable Document Format (pdf) format. The Glossary contains entries for 1045 chemicals. Most of the chemicals included in this glossary are pesticides used during the production of foods or animal feeds. The main part of the Glossary contains additional information about each chemical, including molecular formula and references to sections of Code of Federal Regulations Title 40 that list tolerances on foods and feeds. The Glossary also includes an index, which directs the user to the main entry name for each alternative name.

<http://www.cfsan.fda.gov/~frf/pestglos.html>

### **ChemFinder**

<http://www.chemfinder.com>

A free non-government site

### **Pesticide Action Network North America**

<http://www.pesticideinfo.org/>

This environmental group maintains a pesticide database that presents current toxicity and regulatory information. Notable features: sources for information (including EPA) completely transparent; site is very easy to navigate.

### **United Nations World Health Organization (WHO)**

The WHO has set out a classification system to distinguish between the more and the less hazardous forms of selected pesticides based on acute risk to human health (that is, the risk of single or multiple exposures over a relatively short period of time.) It takes into consideration the toxicity of the compound and its common formulations.

[http://www.who.int/ipcs/publications/pesticides\\_hazard/en/](http://www.who.int/ipcs/publications/pesticides_hazard/en/)

## **3. HEALTH INFO**

### **EPA Integrated Risk Information System (IRIS)**

<http://www.epa.gov/iris>

IRIS is a database of human health effects that may result from exposure to various substances found in the environment.

### **Recognition and Management of Pesticide Poisonings**

<http://www.epa.gov/pesticides/safety/healthcare/handbook/handbook.htm>

The new revised version of EPA's pesticide poisoning handbook is now available. The fifth edition of Recognition and Management of Pesticide Poisonings is edited by Drs.

Routt Reigart and James Roberts, and is published by EPA's Office of Pesticide Programs. Both English and Spanish versions are available.

### **National Library of Medicine (NLM)**

<http://www.nlm.nih.gov>

- N L M ' s Toxicological and Environmental Health Information Program (TEHIP) <http://www.sis.nlm.nih.gov/tehip.cfm>

### **TOXNET**

<http://toxnet.nlm.nih.gov>

## **Agency for Toxic Substances and Disease Registry (ATSDR)**

<http://www.atsdr.cdc.gov/>

**F r e q u e n t l y** Asked Questions

<http://www.atsdr.cdc.gov/toxfaq.html>

**A T S D R** Minimal Risk Levels (MRLs) for Hazardous Substances <http://www.atsdr.cdc.gov/mrls.html>

- By Congressional mandate, ATSDR produces "toxicological profiles" for hazardous substances found at National Priorities List (NPL) sites. These hazardous substances are ranked based on frequency of occurrence at NPL sites, toxicity, and potential for human exposure. Toxicological profiles are developed from a priority list of 275 substances. [www.atsdr.cdc.gov/toxprofiles/](http://www.atsdr.cdc.gov/toxprofiles/)

## **Public Health Assessment Guidance Manual**

An ATSDR Public Health Assessment reviews available information about hazardous substances at a site and evaluates whether exposure to them might cause any harm to people. Public Health Assessments consider:

- what levels (or "concentrations") of hazardous substances are present;
- whether people might be exposed to contamination and how (through "exposure pathways" such as breathing air, drinking or contacting water, contacting or eating soil, or eating food);
- what harm the substances might cause to people (the contaminants' "toxicity");
- whether working or living nearby might affect people's health; and
- Other dangers, such as unsafe buildings, abandoned mine shafts, or other physical hazards.

<http://www.atsdr.cdc.gov/HAC/pha.html>

## **Medical Management Guidelines for Acute Chemical Exposures**

The Medical Management Guidelines (MMGs) for Acute Chemical Exposures were developed by ATSDR to aid emergency department physicians and other emergency healthcare professionals who manage acute exposures resulting from chemical incidents. The MMGs are intended to aid healthcare professionals involved in emergency response to effectively decontaminate patients, protect themselves and others from contamination, communicate with other involved personnel, efficiently transport patients to a medical facility, and provide competent medical evaluation and treatment to exposed persons.

<http://www.atsdr.cdc.gov/mmg.html>

## **Case Studies in Environmental Medicine**

<http://www.atsdr.cdc.gov/HEC/csem.html>

## **National Institute for Occupational Safety and Health (NIOSH)**

<http://www.cdc.gov/niosh>

- NIOSH databases containing information related to chemical hazards <http://www.cdc.gov/niosh/database.html>
- NIOSH Manual of Analytical Methods (NMAM®) <http://www.cdc.gov/niosh/nmam/nmampub.html>

- NIOSH Chemical Occupational Safety and Health Database <http://www.cdc.gov/niosh/coshbase.html>
- International Chemical Safety Cards  
<http://www.cdc.gov/niosh/ipcs/icstart.html>
- Occupational Safety and Health Administration, Technical Information Resources  
<http://www.osha-slc.gov/html/subject-index.html>
- NIOSH Pocket Guide to Chemical Hazards (NPG) Online Version <http://www.cdc.gov/niosh/npg/pgdstart.html>

### **National Cancer Institute (NCI)**

<http://www.nci.nih.gov/>

NIH Scientific Resources  
<http://www.nih.gov/science/>

### **National Toxicology Program (NTP)**

<http://ntp-server.niehs.nih.gov/>

## **4. ENVIRONMENTAL INFORMATION**

### **National Institute of Environmental Health Sciences (NIEHS)**

<http://www.niehs.nih.gov/>

- National Toxicology Program (NTP)  
<http://ntp-server.niehs.nih.gov/>
- Environmental Health Information Service (EHIS)  
<http://ehis.niehs.nih.gov> (free and subscription)
- NTP Center for the Evaluation of Risks to Human Reproduction (CERHR)  
<http://cerhr.niehs.nih.gov/>

### **Centers for Disease Control and Prevention (CDC)**

<http://www.cdc.gov>

- CDC National Center for Environmental Health (NCEH)  
<http://www.cdc.gov/nceh/ncehome.htm>
- Environmental Health Listserv  
<http://www.cdc.gov/nceh/ehserv/ehserv/ehserv/factsheets/listserv.htm>

### **U. S. Geological Survey (USGS)**

<http://www.usgs.gov>

- USGS Toxic Substances Hydrology Program  
<http://toxics.usgs.gov>
- USGS Acute Toxicity Database  
<http://www.cerc.usgs.gov/data/acute/acute.html>

### **U.S. National Park Service**

<http://www.nps.gov>

- Environmental Contaminants Encyclopedia (Irwin, 1998)  
<http://www1.nature.nps.gov/toxic>

### **National Academy of Sciences- Board on Environmental Studies and Toxicology**

<http://nationalacademies.org/cls/best/> Copies of many reports available for free.

## 5. MANAGEMENT AND DISPOSAL OF PESTICIDE WASTES

### **EPA Pesticide Clean Sweep Report 2001**

[http://www.epa.gov/pesticides/regulating/clean\\_summ.htm](http://www.epa.gov/pesticides/regulating/clean_summ.htm)

### **Ag Container Recycling Council**

<http://www.acrecycle.org/collections.html>

### **Safe Transport, Storage & Disposal of Pesticides, Nebraska Coop Extension Service**

<http://www.ianr.unl.edu/pubs/pesticides/EC2507.pdf>

### **Prevention and Disposal of Pesticides, UNFAO**

<http://www.fao.org/WAICENT/FAOINFO/AGRICULT/AGP/AGPP/Pesticid/Disposallindex>

### **Pesticides and Container Management, Purdue University**

<http://www.btny.purdue.edu/Pubs/PPP/PPP21.html>

### **Pesticides and their Proper Storage**

<http://www.btny.purdue.edu/Pubs/PPP/PPP26.html>

### **Safe and Effective Use of Pesticides, 2nd Edition, University of California**

<http://anrcatalog.ucdavis.edu/merchant.ihtml?pid=271&step=4>

### **Hazardous Waste Clean-Up Information, EPA Technology Innovation Office**

<http://www.cluin.org/>

## 6. SELECTED INTERNATIONAL PESTICIDE ACTIVITIES

**Food and Agriculture Organization (FAO) of the United Nations, Pesticide Management Unit** Pesticide Management is an activity carried out within the overall framework of the Plant Protection Service of FAO. It is designed to work together with member countries as a partner to introduce sustainable and environmentally sound agricultural practices that reduce health and environmental risks associated with the use of pesticides. [www.fao.org/ag/agp/agpp/pesticid/](http://www.fao.org/ag/agp/agpp/pesticid/)

### **Food and Agriculture Organization (FAO) of the United Nations and United Nations Environment Programme (UNEP), Joint Secretariat for the Prior Informed Consent Procedure (PIC)**

The Rotterdam Convention is a multilateral environment agreement which enables the world to monitor and control the trade in certain hazardous chemicals and it is not a recommendation to ban the global trade or use of specific chemicals it is rather an instrument to provide importing Parties with the power to make informed decisions on which of these chemicals they want to receive and to exclude those they cannot manage safely. Official site for the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals & Pesticides in International Trade; chemicals in the procedure, importing country decisions, meeting reports.

<http://www.pic.int/>

**United Nations Environment Programme (UNEP) Stockholm Convention** The Stockholm Convention is a global treaty to protect human health and the environment from persistent organic pollutants (POPs). POPs are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to humans and wildlife. POPs circulate globally and can cause damage wherever they travel. In implementing the Convention, Governments will take measures to eliminate or reduce the release of POPs into the environment. Official site: <http://www.pops.int/>

**United Nations Economic Commission on Europe (UNECE)  
Globally Harmonized System for the Classification and Labeling of  
Chemicals (GHS)**

The new system, "Globally Harmonized System of Classification and Labeling of Chemicals (GHS)," addresses classification of chemicals by types of hazard and proposes harmonized hazard communication elements, including labels and safety data sheets. The objective is to ensure that information on physical hazards and toxicity from chemicals is available in order to enhance the protection of human health and the environment during the handling, transport and use of these chemicals. The GHS also provides a basis for harmonization of rules and regulations on chemicals at national, regional and worldwide level, an important factor also for trade facilitation.

[http://www.unece.org/trans/danger/publi/ghs/ghs\\_welcome\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html)

**United Nations Institute for Training and Research (UNITAR)**

UNITAR's Programmes in Chemicals, Waste and Environmental Governance include two inter-related pillars. The Programme in Chemicals and Waste Management provides legal, institutional and technical support to governments and stakeholders to develop sustainable capacity for managing dangerous chemicals and wastes.

<http://www.unitar.org/cwg/>

**UNFAO Sahel Pesticide Management Project "Boite a Utils"**

<http://www.insah.org/agrosoc/Protectiondesvegetaux/fao/sesatool.htm>

A directory in French; materials catalogued are for the most part in English.

## **7. BIBLIOGRAPHIC RESOURCES**

The United Nations Environment Programme (UNEP) is in the process of developing a comprehensive guide, "**Access to Information on Chemical Products on the Internet**," which will include information on industrial chemicals as well as pesticides.

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**Toxicology**-The Official Journal of the British Toxicology Society

<http://www.thebts.org>

A recent issue Toxicology (Volume 157, Issues 1-2, January 2001) includes articles that assemble a fairly comprehensive listing of: toxicology information resources at EPA; toxicology information available from other U.S. government agencies; and, the resources of the international organizations of the Inter-Organization Programme for the Sound Management of Chemicals.

**EPA's Pesticide Management Resource Guide** the PMREG is a guide to many worthwhile pesticide databases available from EPA and other sources, although is current only through the year 2000. The guide is organized according to the categories established in the U. N. Prior Informed Consent (PIC) procedure for the development of Decision Guidance Documents. Notable feature: focus on information needs

of government chemicals management officials, has useful tips on conducting Internet searches.  
<http://www.epa.gov/oppfead1/pmreg>

### **U.N. Environment Programme (UNEP Chemicals/IRPTC) Pointers to Chemistry-related Material on the World Wide Web**

One of the best starting points for links to organizations around the world, particularly inter-governmental, that have chemicals management activities.

<http://www.chem.unep.ch/irptc/othersit.html>

### **UNEP Inventory of Information Sources on Chemicals**

Large database of resources, divided into a number of different categories. Not intended to be comprehensive, but this is a good resource to consult as part of a search.

<http://irptc.unep.ch/irptc/invent/igo.html>

### **Global Information Network on Chemicals (GINC)**

The most comprehensive list of (mostly public) organizations around the world involved in chemicals issues.

<http://www.nihs.go.jp/GINC/>

### **Virginia Tech Pesticide Site Locator**

Very extensive list of web sites of public and private organizations involved in chemicals issues, mostly in the U.S. <http://www.vtpp.ext.vt.edu:8080/catlist.html>

### **University of Nebraska-Pesticide Education Resources**

Provides educational and training programs that address health, the environment, and pesticide safety.

<http://pested.unl.edu>