

## The Redesigned IRIS Web Site

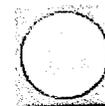
August 20, 2001

EPA, with the help of Marasco Newton Group, Ltd., redesigned the IRIS Web site to improve the presentation of information for IRIS use to allow better searching and quicker information retrieval, to better integrate IRIS with other EPA information systems, and to utilize new technology that facilitates future development of the system. The new features of the redesigned IRIS Web site were developed in response to user feedback through April 2001.

The redesigned IRIS Web site uses ColdFusion and Oracle to store and manage large amounts of toxicological information in a secure and scalable environment. ColdFusion and Oracle were selected because they meet the data base needs of the expanding IRIS program and are approved technologies for use on EPA's server environment. The site provides users with a comprehensive, flexible set of searching and reporting tools with which to access and use IRIS data. The scalability of the Oracle database will allow for the growth of the Web site over time. The ColdFusion applications provide several different ways to search the Web site based on user-selected criteria, multiple substance reporting, and a snapshot or "QuickView" which presents a summary of each IRIS substance.

[Click here to go to the redesigned IRIS Web site.](#)

**Substance File List**



**332684**

Visits Since March 11, 1997.

Last updated: 20 August 2001

Received by LR-RPT  
SEP 17 2001  
*[Signature]*





## Aroclor 1254

CASRN 11097-69-1

---

### Contents

I.A. REFERENCE DOSE FOR CHRONIC ORAL EXPOSURE (RfD)

I.B. REFERENCE CONCENTRATION FOR CHRONIC  
INHALATION EXPOSURE (RfC)

II. CARCINOGENICITY ASSESSMENT FOR LIFETIME EXPOSURE

VI. BIBLIOGRAPHY

VII. REVISION HISTORY

VIII. SYNONYMS

---

0389  
Aroclor 1254; CASRN 11097-69-1

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of chronic toxicity data by U.S. EPA health scientists from several Program Offices and the Office of Research and Development. The summaries presented in Sections I and II represent a consensus reached in the review process. Background information and explanations of the methods used to derive the values given in IRIS are

provided in the Background Documents.

STATUS OF DATA FOR Aroclor 1254

File On-Line 10/01/1994

Category (section)	Status	Last Revised
-----	-----	-----
Oral RfD Assessment (I.A.)	on-line	11/01/1996
Inhalation RfC Assessment (I.B.)	no data	
Carcinogenicity Assessment (II.)	no data	

---

## I. CHRONIC HEALTH HAZARD ASSESSMENTS FOR NONCARCINOGENIC EFFECTS

### I.A. REFERENCE DOSE FOR CHRONIC ORAL EXPOSURE (RfD)

Substance Name -- Aroclor 1254  
 CASRN -- 11097-69-1  
 Primary Synonym -- PCBs, Polychlorinated Biphenyls  
 Last Revised -- 11/01/1996

The oral Reference Dose (RfD) is based on the assumption that thresholds exist for certain toxic effects such as cellular necrosis. It is expressed in units of mg/kg-day. In general, the RfD is an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. Please refer to the Background Document for an elaboration of these concepts. RfDs can also be derived for the noncarcinogenic health effects of substances that are also carcinogens.

Therefore, it is essential to refer to other sources of information concerning the carcinogenicity of this substance. If the U.S. EPA has evaluated this substance for potential human carcinogenicity, a summary of that evaluation will be contained in Section II of this file.

**I.A.1. ORAL RfD SUMMARY**

Critical Effect	Experimental Doses*	UF	MF	RfD
Ocular exudate, inflamed and prominent Meibomian glands, distorted growth of finger and toe nails; decreased antibody (IgG and IgM) response to sheep erythrocytes	NOAEL: None LOAEL: 0.005 mg/kg-day	300	1	2E-5 mg/kg-day
Monkey Clinical and Immunologic Studies				
Arnold et al., 1994a,b; Tryphonas et al., 1989, 1991a,b				

\*Conversion Factors and Assumptions -- None

**I.A.2. PRINCIPAL AND SUPPORTING STUDIES (ORAL RfD)**

Arnold, D.L., F. Bryce, R. Stapley et al. 1993a. Toxicological consequences of Aroclor 1254 ingestion by female Rhesus (*Macaca mulatta*) monkeys, Part 1A: Prebreeding phase - clinical health findings. *Food Chem. Toxicol.* 31: 799-810.

Arnold, D.L., F. Bryce, K. Karpinski et al. 1993b. Toxicological consequences of Aroclor 1254 ingestion by female Rhesus (*Macaca mulatta*) monkeys, Part 1B: Prebreeding phase - clinical and analytical laboratory findings. *Food Chem. Toxicol.* 31: 811-824.

**Benzene**  
CASRN 71-43-2  
(01/19/2000)

**Contents**

I.A. REFERENCE DOSE FOR CHRONIC ORAL EXPOSURE (RfD)

I.B. REFERENCE CONCENTRATION FOR CHRONIC  
INHALATION EXPOSURE (RfC)

II. CARCINOGENICITY ASSESSMENT FOR LIFETIME EXPOSURE

VI. BIBLIOGRAPHY

VII. REVISION HISTORY

VIII. SYNONYMS

**Note:** Support Document and response to the peer review for the benzene inhalation carcinogenicity assessment in Adobe\* PDF format (57 Pages, 285 Kbytes).  
Support Document and response to the peer review for the benzene oral carcinogenicity assessment in Adobe\* PDF format (27 Pages, 74 Kbytes).  
Similar documents can be found in the  
List of Available IRIS Toxicological Reviews and Other Support

0276

Benzene; CASRN 71-43-2 (01/19/2000)

Health assessment information on a chemical substance is included in IRIS only after a comprehensive review of chronic toxicity data by U.S. EPA health scientists from several Program Offices and the Office of Research and Development. The summaries presented in Sections I and II represent a consensus reached in the review process. Background information and explanations of the methods used to derive the values given in IRIS are provided in the Background Documents.

STATUS OF DATA FOR Benzene  
File First On-Line 03/01/1988

Category (section)	Status	Last Revised
Oral RfD Assessment (I.A.)	no data	
Inhalation RfC Assessment (I.B.)	no data	
Carcinogenicity Assessment (II.)	on-line	01/19/2000

## I. CHRONIC HEALTH HAZARD ASSESSMENTS FOR NONCARCINOGENIC EFFECTS

### I.A. REFERENCE DOSE FOR CHRONIC ORAL EXPOSURE (RfD)

Substance Name -- Benzene  
CASRN -- 71-43-2

Not available at this time.