



# Toxicological Profile for Copper

October 2024



U.S. Department of Health and Human Services  
Agency for Toxic Substances and Disease Registry

## **DISCLAIMER**

Use of trade names is for identification only and does not imply endorsement by the Agency for Toxic Substances and Disease Registry, the Public Health Service, or the U.S. Department of Health and Human Services.

## FOREWORD

This toxicological profile is prepared in accordance with guidelines developed by the Agency for Toxic Substances and Disease Registry (ATSDR) and the Environmental Protection Agency (EPA). The original guidelines were published in the *Federal Register* on April 17, 1987. Each profile will be revised and republished as necessary.

The ATSDR toxicological profile succinctly characterizes the toxicologic and adverse health effects information for these toxic substances described therein. Each peer-reviewed profile identifies and reviews the key literature that describes a substance's toxicologic properties. Other pertinent literature is also presented, but is described in less detail than the key studies. The profile is not intended to be an exhaustive document; however, more comprehensive sources of specialty information are referenced.

The focus of the profiles is on health and toxicologic information; therefore, each toxicological profile begins with a relevance to public health discussion which would allow a public health professional to make a real-time determination of whether the presence of a particular substance in the environment poses a potential threat to human health. The adequacy of information to determine a substance's health effects is described in a health effects summary. Data needs that are of significance to the protection of public health are identified by ATSDR.

Each profile includes the following:

- (A) The examination, summary, and interpretation of available toxicologic information and epidemiologic evaluations on a toxic substance to ascertain the levels of significant human exposure for the substance due to associated acute-, intermediate-, and chronic-duration exposures;
- (B) A determination of whether adequate information on the health effects of each substance is available or in the process of development to determine levels of exposure that present a significant risk to human health of acute, intermediate, and chronic health effects; and
- (C) Where appropriate, identification of toxicologic testing needed to identify the types or levels of exposure that may present significant risk of adverse health effects in humans.

The principal audiences for the toxicological profiles are health professionals at the Federal, State, and local levels; interested private sector organizations and groups; and members of the public.

This profile reflects ATSDR's assessment of all relevant toxicologic testing and information that has been peer-reviewed. Staffs of the Centers for Disease Control and Prevention and other Federal scientists have also reviewed the profile. In addition, this profile has been peer-reviewed by a nongovernmental panel and was made available for public review. Final responsibility for the contents and views expressed in this toxicological profile resides with ATSDR.



Christopher M. Reh, Ph.D.  
Associate Director

Agency for Toxic Substances and Disease Registry  
Centers for Disease Control and Prevention

## VERSION HISTORY

Date	Description
October 2024	Final toxicological profile released
April 2022	Draft for public comment toxicological profile released
September 2004	Final toxicological profile released
October 1990	Final toxicological profile released

## CONTRIBUTORS & REVIEWERS

### CHEMICAL MANAGER TEAM

Breanna Alman, M.P.H. (Lead)  
Fahim Atif, Ph.D.  
Mike Fay, Ph.D.  
Carolyn Harper, Ph.D.

ATSDR, Office of Innovation and Analytics,  
Toxicology Section, Atlanta, GA

Adriana Antezana, M.P.H.  
Hannah Derrick, B.S.  
Andrea Chiger, M.P.H.  
Samantha Hall, B.S.  
Meghan Lynch, D.Sc.  
Kerry Diskin, D.Sc.  
Abt Associates, Cambridge, MA  
Bob Sonawane, Ph.D.  
Toxicology and Risk Assessment  
Consulting Services, Rockville, MD  
(under subcontract to Abt Associates)

Heather Carlson-Lynch, M.S., D.A.B.T.  
Deborah Herber, Ph.D.  
Claire Heit, Ph.D.  
Christina Coley, M.S.  
Mario Citra, Ph.D.  
SRC, Inc., North Syracuse, NY

### REVIEWERS

#### **Interagency Minimal Risk Level Workgroup:**

Includes ATSDR; National Center for Environmental Health (NCEH); National Institute for Occupational Safety and Health (NIOSH); U.S. Environmental Protection Agency (EPA); National Toxicology Program (NTP).

#### **Additional reviews for science and/or policy:**

ATSDR, Office of Community Health Hazard Assessment; ATSDR, Office of Capacity Development and Applied Prevention Science; ATSDR, Office of Science; NCEH, Division of Laboratory Sciences; NCEH, Division of Environmental Health Science and Practice; EPA, Office of Research and Development; EPA, Office of Water.

### PEER REVIEWERS

1. Deborah Cory-Slechta, Ph.D., Professor in Environmental Medicine and Pediatrics, University of Rochester Medical Center, School of Medicine and Dentistry, University of Rochester, Rochester New York
2. Jerome Nriagu, DSc, Ph.D., Emeritus Professor, Environmental Health Sciences; Research Professor, center for Human Growth and Development, Ann Arbor, Michigan
3. David C. Dorman, DVM, DABT, DABVT, ATS, Ph.D., Professor, Toxicology, North Carolina State University, Raleigh, North Carolina

These experts collectively have knowledge of toxicology, chemistry, and/or health effects. All reviewers were selected in conformity with Section 104(I)(13) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended.

ATSDR scientists review peer reviewers' comments and determine whether changes will be made to the profile based on comments. The peer reviewers' comments and responses to these comments are part of the administrative record for this compound.

The listing of peer reviewers should not be understood to imply their approval of the profile's final content. The responsibility for the content of this profile lies with ATSDR.

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