

**TOXICOLOGICAL PROFILE FOR  
DI-*n*-OCTYLPHTHALATE**

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Agency for Toxic Substances and Disease Registry**

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## **UPDATE STATEMENT**

Toxicological profiles are revised and republished as necessary, but no less than once every three years. For information regarding the update status of previously released profiles, contact ATSDR at:

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## 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 the hazardous substance described therein. Each peer-reviewed profile identifies and reviews the key literature that describes a hazardous 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 public health statement that describes, in nontechnical language, a substance's relevant toxicological properties. Following the public health statement is information concerning levels of significant human exposure and, where known, significant health effects. 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 protection of public health are identified by ATSDR and EPA.

Each profile includes the following:

- (A) The examination, summary, and interpretation of available toxicologic information and epidemiologic evaluations on a hazardous substance to ascertain the levels of significant human exposure for the substance and the associated acute, subacute, and chronic health effects;
- (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, subacute, 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. Staff 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.



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### \*Legislative Background

The toxicological profiles are developed in response to the Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499) which amended the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or Superfund). Section 211 of SARA also amended Title 10 of the U. S. Code, creating the Defense Environmental Restoration Program. Section 2704(a) of Title 10 of the U. S. Code directs the Secretary of Defense to notify the Secretary of Health and Human Services of not less than 25 of the most commonly found unregulated hazardous substances at defense facilities. Section 2704(b) of Title 10 of the U. S. Code directs the Administrator of the Agency for Toxic Substances and Disease Registry (ATSDR) to prepare a toxicological profile for each substance on the list provided by the Secretary of Defense under subsection (b).

## CONTRIBUTORS

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### THE PROFILE HAS UNDERGONE THE FOLLOWING ATSDR INTERNAL REVIEWS:

1. Green Border Review. Green Border review assures the consistency with ATSDR policy.
2. Health Effects Review. The Health Effects Review Committee examines the health effects chapter of each profile for consistency and accuracy in interpreting health effects and classifying end points.
3. Minimal Risk Level Review. The Minimal Risk Level Workgroup considers issues relevant to substance-specific minimal risk levels (MRLs), reviews the health effects database of each profile, and makes recommendations for derivation of MRLs.





## PEER REVIEW

A peer review panel was assembled for di-*n*-octylphthalate. The panel consisted of the following members:

1. Bernard D. Astill, Ph.D., Independent Consultant, Spencerport, New York
2. W. Homer Lawrence, Ph.D., Professor, University of Tennessee, Memphis, Tennessee
3. David E. Moody, Ph.D., Research Associate Professor, University of Utah, Salt Lake City, Utah

These experts collectively have knowledge of di-*n*-octylphthalate's physical and chemical properties, toxicokinetics, key health end points, mechanisms of action, human and animal exposure, and quantification of risk to humans. All reviewers were selected in conformity with the conditions for peer review specified in Section 104(i)(13) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended.

Scientists from the Agency for Toxic Substances and Disease Registry (ATSDR) have reviewed the peer reviewers' comments and determined which comments will be included in the profile. A listing of the peer reviewers' comments not incorporated in the profile, with a brief explanation of the rationale for their exclusion, exists as part of the administrative record for this compound. A list of databases reviewed and a list of unpublished documents cited are also included in the administrative record.

The citation of the peer review panel should not be understood to imply its approval of the profile's final content. The responsibility for the content of this profile lies with the ATSDR.



## CONTENTS

FOREWORD .....	v
CONTRIBUTORS .....	vii
PEER REVIEW .....	ix
LIST OF FIGURES .....	xv
LIST OF TABLES .....	xvii
1. PUBLIC HEALTH STATEMENT .....	1
1.1 WHAT IS DI- <i>n</i> -OCTYLPHthalate? .....	1
1.2 WHAT HAPPENS TO DI- <i>n</i> -OCTYLPHthalate WHEN IT ENTERS THE ENVIRONMENT? .....	2
1.3 HOW MIGHT I BE EXPOSED TO DI- <i>n</i> -OCTYLPHthalate? .....	2
1.4 HOW CAN DI- <i>n</i> -OCTYLPHthalate ENTER AND LEAVE MY BODY? .....	3
1.5 HOW CAN DI- <i>n</i> -OCTYLPHthalate AFFECT MY HEALTH? .....	4
1.6 IS THERE A MEDICAL TEST TO DETERMINE WHETHER I HAVE BEEN EXPOSED TO DI- <i>n</i> -OCTYLPHthalate? .....	5
1.7 WHAT RECOMMENDATIONS HAS THE FEDERAL GOVERNMENT MADE TO PROTECT HUMAN HEALTH? .....	5
1.8 WHERE CAN I GET MORE INFORMATION? .....	5
2. HEALTH EFFECTS .....	7
2.1 INTRODUCTION .....	7
2.2 DISCUSSION OF HEALTH EFFECTS BY ROUTE OF EXPOSURE .....	7
2.2.1 Inhalation Exposure .....	9
2.2.1.1 Death .....	9
2.2.1.2 Systemic Effects .....	9
2.2.1.3 Immunological and Lymphoreticular Effects .....	9
2.2.1.4 Neurological Effects .....	9
2.2.1.5 Reproductive Effects .....	9
2.2.1.6 Developmental Effects .....	9
2.2.1.7 Genotoxic Effects .....	9
2.2.1.8 Cancer .....	10
2.2.2 Oral Exposure .....	10
2.2.2.1 Death .....	10
2.2.2.2 Systemic Effects .....	10
2.2.2.3 Immunological and Lymphoreticular Effects .....	28
2.2.2.4 Neurological Effects .....	30
2.2.2.5 Reproductive Effects .....	30
2.2.2.6 Developmental Effects .....	32
2.2.2.7 Genotoxic Effects .....	33
2.2.2.8 Cancer .....	33
2.2.3 Dermal Exposure .....	34
2.2.3.1 Death .....	34

2.2.3.2	Systemic Effects	34
2.2.3.3	Immunological and Lymphoreticular Effects	35
2.2.3.4	Neurological Effects	35
2.2.3.5	Reproductive Effects	35
2.2.3.6	Developmental Effects	35
2.2.3.7	Genotoxic Effects	35
2.2.3.8	Cancer	35
2.3	TOXICOKINETICS	35
2.3.1	Absorption	36
2.3.1.1	Inhalation Exposure	36
2.3.1.2	Oral Exposure	36
2.3.1.3	Dermal Exposure	37
2.3.2	Distribution	37
2.3.2.1	Inhalation Exposure	37
2.3.2.2	Oral Exposure	37
2.3.2.3	Dermal Exposure	38
2.3.3	Metabolism	38
2.3.4	Excretion	40
2.3.4.1	Inhalation Exposure	40
2.3.4.2	Oral Exposure	40
2.3.4.3	Dermal Exposure	40
2.4	MECHANISMS OF ACTION	40
2.5	RELEVANCE TO PUBLIC HEALTH	41
2.6	BIOMARKERS OF EXPOSURE AND EFFECT	51
2.6.1	Biomarkers Used to Identify or Quantify Exposure to Di- <i>n</i> -octylphthalate	52
2.6.2	Biomarkers Used to Characterize Effects Caused by Di- <i>n</i> -octylphthalate	52
2.7	INTERACTIONS WITH OTHER SUBSTANCES	52
2.8	POPULATIONS THAT ARE UNUSUALLY SUSCEPTIBLE	52
2.9	METHODS FOR REDUCING TOXIC EFFECTS	53
2.9.1	Reducing Peak Absorption Following Exposure	53
2.9.2	Reducing Body Burden	54
2.9.3	Interfering with the Mechanism of Action for Toxic Effects	54
2.10	ADEQUACY OF THE DATABASE	54
2.10.1	Existing Information on Health Effects of Di- <i>n</i> -octylphthalate	55
2.10.2	Identification of Data Needs	55
2.10.3	On-going Studies	63
3.	CHEMICAL AND PHYSICAL INFORMATION	65
3.1	CHEMICAL IDENTITY	65
3.2	PHYSICAL AND CHEMICAL PROPERTIES	65
4.	PRODUCTION, IMPORT, USE, AND DISPOSAL	69
4.1	PRODUCTION	69
4.2	IMPORT/EXPORT	73
4.3	USE	73
4.4	DISPOSAL	73
5.	POTENTIAL FOR HUMAN EXPOSURE	75
5.1	OVERVIEW	75

5.2	RELEASES TO THE ENVIRONMENT	76
5.2.1	Air	76
5.2.2	Water	76
5.2.3	Soil	81
5.3	ENVIRONMENTAL FATE	82
5.3.1	Transport and Partitioning	82
5.3.2	Transformation and Degradation	83
5.3.2.1	Air	83
5.3.2.2	Water	83
5.3.2.3	Sediment and Soil	84
5.4	LEVELS MONITORED OR ESTIMATED IN THE ENVIRONMENT	84
5.4.1	Air	85
5.4.2	Water	85
5.4.3	Sediment and Soil	86
5.4.4	Other Environmental Media	86
5.5	GENERAL POPULATION AND OCCUPATIONAL EXPOSURE	86
5.6	POPULATIONS WITH POTENTIALLY HIGH EXPOSURES	87
5.7	ADEQUACY OF THE DATABASE	87
5.7.1	Identification of Data Needs	88
5.7.2	On-going Studies	91
6.	ANALYTICAL METHODS	93
6.1	BIOLOGICAL MATERIALS	93
6.2	ENVIRONMENTAL SAMPLES	93
6.3	ADEQUACY OF THE DATABASE	99
6.3.1	Identification of Data Needs	100
6.3.2	On-going Studies	100
7.	REGULATIONS AND ADVISORIES	101
8.	REFERENCES	103
9.	GLOSSARY	115
APPENDICES		
A.	MINIMAL RISK LEVEL WORKSHEETS	A-1
B.	USER'S GUIDE	B-1
C.	ACRONYMS, ABBREVIATIONS, AND SYMBOLS	C-1



**LIST OF FIGURES**

2-1. Levels of Significant Exposure to Di- <i>n</i> -octylphthalate - Oral . . . . .	19
2-2. Major Metabolic Pathway of Di- <i>n</i> -octylphthalate . . . . .	39
2-3. Existing Information on Health Effects of Di- <i>n</i> -octylphthalate . . . . .	56
5-1. Frequency of NPL Sites with Di- <i>n</i> -octylphthalate Contamination . . . . .	77





**LIST OF TABLES**

2-1. Levels of Significant Exposure to Di- <i>n</i> -octylphthalate - Oral . . . . .	11
2-2. Genotoxicity of Di- <i>n</i> -octylphthalate <i>In Vitro</i> . . . . .	50
3-1. Chemical Identity of Di- <i>n</i> -octylphthalate . . . . .	66
3-2. Physical and Chemical Properties of Di- <i>n</i> -octylphthalate . . . . .	67
4-1. Facilities That Manufacture or Process Di- <i>n</i> -octylphthalate . . . . .	70
5-1. Releases to the Environment from Facilities That Manufacture or Process Di- <i>n</i> -octylphthalate . . . . .	78
6-1. Analytical Methods for Determining Di- <i>n</i> -octylphthalate in Biological Materials . . . . .	94
6-2. Analytical Methods for Determining Di- <i>n</i> -octylphthalate in Environmental Samples . . . . .	95
7-1. Regulations and Guidelines Applicable to Di- <i>n</i> -octylphthalate . . . . .	102