

TOXICOLOGICAL PROFILE FOR  
THALLIUM

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## FOREWORD

The Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499) extended and amended the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or Superfund). This public law directed the Agency for Toxic Substances and Disease Registry (ATSDR) to prepare toxicological profiles for hazardous substances which are most commonly found at facilities on the CERCLA National Priorities List and which pose the most significant potential threat to human health, as determined by ATSDR and the Environmental Protection Agency (EPA). The lists of the 250 most significant hazardous substances were published in the Federal Register on April 17, 1987; on October 20, 1988; on October 26, 1989; and on October 17, 1990. A revised list of 275 substances was published on October 17, 1991.

Section 104(i)(3) of CERCLA, as amended, directs the Administrator of ATSDR to prepare a toxicological profile for each substance on the lists. Each profile must include the following content:

- (A) An examination, summary, and interpretation of available toxicological information and epidemiological evaluations on the hazardous substance in order 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 which present a significant risk to human health of acute, subacute, and chronic health effects.
- (C) Where appropriate, an identification of toxicological testing needed to identify the types or levels of exposure that may present significant risk of adverse health effects in humans.

This toxicological profile is prepared in accordance with guidelines developed by ATSDR and 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 is intended to characterize succinctly the toxicological and adverse health effects information for the hazardous substance being described. Each profile identifies and reviews the key literature (that has been peer-reviewed) that describes a hazardous substance's toxicological properties. Other pertinent literature is also presented but 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.

*Foreword*

Each toxicological profile begins with a public health statement, which 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 will be identified by ATSDR, the National Toxicology Program (NTP) of the Public Health Service, and EPA. The focus of the profiles is on health and toxicological information; therefore, we have included this information in the beginning of the document.

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 our assessment of all relevant toxicological testing and information that has been peer reviewed. It has been reviewed by scientists from ATSDR, the Centers for Disease Control, the NTP, and other federal agencies. It has also been reviewed by a panel of nongovernment peer reviewers. Final responsibility for the contents and views expressed in this toxicological profile resides with ATSDR.



William L. Roper, M.D., M.P.H.  
Administrator  
Agency for Toxic Substances and  
Disease Registry

## CONTENTS

FOREWORD . . . . .	iii
LIST OF FIGURES . . . . .	ix
LIST OF TABLES . . . . .	xi
1. PUBLIC HEALTH STATEMENT . . . . .	1
1.1 WHAT IS THALLIUM? . . . . .	1
1.2 HOW MIGHT I BE EXPOSED TO THALLIUM? . . . . .	2
1.3 HOW CAN THALLIUM ENTER AND LEAVE MY BODY? . . . . .	2
1.4 HOW CAN THALLIUM AFFECT MY HEALTH? . . . . .	3
1.5 IS THERE A MEDICAL TEST TO DETERMINE WHETHER I HAVE BEEN EXPOSED TO THALLIUM? . . . . .	3
1.6 WHAT RECOMMENDATIONS HAS THE FEDERAL GOVERNMENT MADE TO PROTECT HUMAN HEALTH? . . . . .	4
1.7 WHERE CAN I GET MORE INFORMATION? . . . . .	4
2. HEALTH EFFECTS . . . . .	5
2.1 INTRODUCTION . . . . .	5
2.2 DISCUSSION OF HEALTH EFFECTS BY ROUTE OF EXPOSURE . . . . .	5
2.2.1 Inhalation Exposure . . . . .	6
2.2.1.1 Death . . . . .	6
2.2.1.2 Systemic Effects . . . . .	6
2.2.1.3 Immunological Effects . . . . .	7
2.2.1.4 Neurological Effects . . . . .	7
2.2.1.5 Developmental Effects . . . . .	7
2.2.1.6 Reproductive Effects . . . . .	7
2.2.1.7 Genotoxic Effects . . . . .	7
2.2.1.8 Cancer . . . . .	7
2.2.2 Oral Exposure . . . . .	8
2.2.2.1 Death . . . . .	8
2.2.2.2 Systemic Effects . . . . .	8
2.2.2.3 Immunological Effects . . . . .	14
2.2.2.4 Neurological Effects . . . . .	14
2.2.2.5 Developmental Effects . . . . .	15
2.2.2.6 Reproductive Effects . . . . .	15
2.2.2.7 Genotoxic Effects . . . . .	16
2.2.2.8 Cancer . . . . .	16
2.2.3 Dermal Exposure . . . . .	16
2.2.3.1 Death . . . . .	16
2.2.3.2 Systemic Effects . . . . .	16
2.2.3.3 Immunological Effects . . . . .	16
2.2.3.4 Neurological Effects . . . . .	16
2.2.3.5 Developmental Effects . . . . .	16
2.2.3.6 Reproductive Effects . . . . .	16

2.2.3.7	Genotoxic Effects	16
2.2.3.8	Cancer	17
2.3	TOXICOKINETICS	17
2.3.1	Absorption	17
2.3.1.1	Inhalation Exposure	17
2.3.1.2	Oral Exposure	17
2.3.1.3	Dermal Exposure	17
2.3.2	Distribution	18
2.3.2.1	Inhalation Exposure	18
2.3.2.2	Oral Exposure	18
2.3.2.3	Dermal Exposure	18
2.3.2.4	Other Exposure	19
2.3.3	Metabolism	19
2.3.4	Excretion	19
2.3.4.1	Inhalation Exposure	19
2.3.4.2	Oral Exposure	19
2.3.4.3	Dermal Exposure	20
2.4	RELEVANCE TO PUBLIC HEALTH	20
2.5	BIOMARKERS OF EXPOSURE AND EFFECT	25
2.5.1	Biomarkers Used to Identify and/or Quantify Exposure to Thallium	27
2.5.2	Biomarkers Used to Characterize Effects Caused by Thallium	28
2.6	INTERACTIONS WITH OTHER CHEMICALS	28
2.7	POPULATIONS THAT ARE UNUSUALLY SUSCEPTIBLE	29
2.8	MITIGATION OF EFFECTS	29
2.9	ADEQUACY OF THE DATABASE	30
2.9.1	Existing Information on Health Effects of Thallium	31
2.9.2	Data Needs	31
2.9.3	On-going Studies	37
3.	CHEMICAL AND PHYSICAL INFORMATION	39
3.1	CHEMICAL IDENTITY	39
3.2	PHYSICAL AND CHEMICAL PROPERTIES	39
4.	PRODUCTION, IMPORT, USE, AND DISPOSAL	45
4.1	PRODUCTION	45
4.2	IMPORT/EXPORT	45
4.3	USE	45
4.4	DISPOSAL	47
5.	POTENTIAL FOR HUMAN EXPOSURE	49
5.1	OVERVIEW	49
5.2	RELEASES TO THE ENVIRONMENT	49
5.2.1	Air	52
5.2.2	Water	52
5.2.3	Soil	53
5.3	ENVIRONMENTAL FATE	53
5.3.1	Transport and Partitioning	53
5.3.2	Transformation and Degradation	54

5.3.2.1	Air	54
5.3.2.2	Water	54
5.3.2.3	Soil	54
5.4	LEVELS MONITORED OR ESTIMATED IN THE ENVIRONMENT	55
5.4.1	Air	55
5.4.2	Water	55
5.4.3	Soil	55
5.4.4	Other Environmental Media	56
5.5	GENERAL POPULATION AND OCCUPATIONAL EXPOSURE	56
5.6	POPULATIONS WITH POTENTIALLY HIGH EXPOSURES	58
5.7	ADEQUACY OF THE DATABASE	58
5.7.1	Data Needs	59
5.7.2	On-going Studies	60
6.	ANALYTICAL METHODS	61
6.1	BIOLOGICAL MATERIALS	61
6.2	ENVIRONMENTAL SAMPLES	61
6.3	ADEQUACY OF THE DATABASE	64
6.3.1	Data Needs	64
6.3.2	On-going Studies	65
7.	REGULATIONS AND ADVISORIES	67
8.	REFERENCES	71
9.	GLOSSARY	87
APPENDICES		
A.	USER'S GUIDE	A-1
B.	ACRONYMS, ABBREVIATIONS, AND SYMBOLS	B-1
C.	PEER REVIEW	C-1





LIST OF FIGURES

2-1	Levels of Significant Exposure to Thallium - Oral . . . . .	11
2-2	Existing Information on Health Effects of Thallium . . . . .	32
5-1	Frequency of NPL Sites with Thallium Contamination . . . . .	50



## LIST OF TABLES

2-1	Levels of Significant Exposure to Thallium - Oral . . . . .	9
2-2	Genotoxicity of Thallium <u>In Vitro</u> . . . . .	26
2-3	On-going Studies on the Health Effects of Thallium . . . . .	38
3-1	Chemical Identity of Thallium and Compounds . . . . .	40
3-2	Physical and Chemical Properties of Thallium and Compounds . . . . .	42
4-1	Facilities that Manufacture or Process Thallium and Compounds . . . . .	46
5-1	Releases to the Environment from Facilities that Manufacture or Process Thallium and Compounds . . . . .	51
5-2	Summary of Typical Human Exposure to Thallium . . . . .	57
6-1	Analytical Methods for Determining Thallium in Biological Materials . . . . .	62
6-2	Analytical Methods for Determining Thallium in Environmental Samples . . . . .	63
7-1	Regulations and Guidelines Applicable to Thallium and Compounds . . . . .	68