

## TABLE OF CONTENTS

FOREWORD .....	1
1. EXECUTIVE SUMMARY .....	4
2. IDENTITY AND PHYSICAL/CHEMICAL PROPERTIES .....	5
3. ANALYTICAL METHODS .....	5
4. SOURCES OF HUMAN AND ENVIRONMENTAL EXPOSURE .....	6
5. ENVIRONMENTAL TRANSPORT, DISTRIBUTION, AND TRANSFORMATION .....	7
6. ENVIRONMENTAL LEVELS AND HUMAN EXPOSURE .....	9
6.1 Environmental levels .....	9
6.2 Human exposure .....	10
7. COMPARATIVE KINETICS AND METABOLISM IN LABORATORY MAMMALS AND HUMANS .....	10
7.1 Absorption .....	11
7.2 Distribution .....	11
7.3 Metabolism and elimination .....	11
7.4 Genetic polymorphism and sex, strain, organ, and species differences .....	11
8. EFFECTS ON LABORATORY MAMMALS AND <i>IN VITRO</i> TEST SYSTEMS .....	13
8.1 Single exposure .....	13
8.2 Irritation and sensitization .....	13
8.3 Short-term exposure .....	13
8.4 Medium-term exposure .....	15
8.5 Long-term exposure and carcinogenicity .....	16
8.6 Genotoxicity and related end-points .....	18
8.6.1 Studies <i>in vitro</i> .....	18
8.6.2 Studies <i>in vivo</i> .....	18
8.7 Reproductive and developmental toxicity .....	20
8.7.1 Effects on fertility .....	20
8.7.2 Developmental toxicity .....	22
8.8 Immunological and neurological effects .....	22
9. EFFECTS ON HUMANS .....	23
9.1 Studies in volunteers .....	23
9.2 Case reports .....	23
9.3 Epidemiological studies .....	23
10. EFFECTS ON OTHER ORGANISMS IN THE LABORATORY AND FIELD .....	23
10.1 Aquatic environment .....	23
10.2 Terrestrial environment .....	24

11. EFFECTS EVALUATION .....	24
11.1 Evaluation of health effects .....	24
11.1.1 Hazard identification and dose-response assessment .....	24
11.1.2 Criteria for setting tolerable intakes or guidance values for methyl chloride .....	26
11.1.3 Sample risk characterization .....	27
11.2 Evaluation of environmental effects .....	27
12. PREVIOUS EVALUATIONS BY INTERNATIONAL BODIES .....	28
REFERENCES .....	29
APPENDIX 1 — SOURCE DOCUMENTS .....	36
APPENDIX 2 — CICAD PEER REVIEW .....	37
APPENDIX 3 — CICAD FINAL REVIEW BOARD .....	38
INTERNATIONAL CHEMICAL SAFETY CARD .....	39
RÉSUMÉ D'ORIENTATION .....	41
RESUMEN DE ORIENTACIÓN .....	43