

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.....	5
4.1 Natural sources	5
4.2 Production and use	6
5. ENVIRONMENTAL LEVELS AND HUMAN EXPOSURE.....	7
5.1 Environmental levels.....	7
5.1.1 Ambient air	7
5.1.2 Food	7
5.1.3 Consumer products	8
5.2 Human exposure: environmental.....	8
5.3 Human exposure: occupational	10
6. COMPARATIVE KINETICS AND METABOLISM IN LABORATORY ANIMALS AND HUMANS.....	11
7. EFFECTS ON LABORATORY MAMMALS AND <i>IN VITRO</i> TEST SYSTEMS.....	12
7.1 Acute toxicity	12
7.2 Irritation and sensitization	12
7.3 Short- and medium-term exposure	13
7.4 Long-term exposure and carcinogenicity	15
7.5 Genotoxicity	16
7.6 Reproductive toxicity	17
7.7 Neurological effects and effects on the immune system	19
7.8 Mode of action.....	19
8. EFFECTS ON HUMANS.....	20
9. EVALUATION OF HEALTH EFFECTS.....	21
9.1 Hazard identification and dose-response assessment.....	21
9.1.1 Carcinogenicity.....	21
9.1.2 Non-neoplastic effects	21
9.2 Criteria for setting tolerable intakes/concentrations or guidance values for ethylene glycol	22
9.2.1 Oral exposure.....	23
9.2.2 Inhalation exposure.....	25
9.2.3 Dermal exposure.....	25
9.3 Sample risk characterization	25
9.4 Uncertainties and degree of confidence in human health risk characterization.....	26
10. PREVIOUS EVALUATIONS BY INTERNATIONAL BODIES.....	27

Concise International Chemical Assessment Document 45

REFERENCES	28
APPENDIX 1 — SOURCE DOCUMENTS	32
APPENDIX 2 — CICAD PEER REVIEW	32
APPENDIX 3 — CICAD FINAL REVIEW BOARD	33
INTERNATIONAL CHEMICAL SAFETY CARD	34
RÉSUMÉ D'ORIENTATION	36
RESUMEN DE ORIENTACIÓN.....	37