

TABLE OF CONTENTS

FOREWORD	1
1. EXECUTIVE SUMMARY	4
2. IDENTITY AND PHYSICAL/CHEMICAL PROPERTIES	5
2.1 Methyl 2-cyanoacrylate	5
2.2 Ethyl 2-cyanoacrylate	5
3. ANALYTICAL METHODS	5
3.1 Environmental monitoring	5
3.2 Workplace air monitoring	5
3.3 Biological monitoring in humans	6
4. SOURCES OF HUMAN AND ENVIRONMENTAL EXPOSURE	6
4.1 Manufacture	6
4.2 Use	7
5. ENVIRONMENTAL TRANSPORT, DISTRIBUTION, AND TRANSFORMATION	7
6. ENVIRONMENTAL LEVELS AND HUMAN EXPOSURE	7
6.1 Environmental levels	7
6.2 Occupational exposure	7
7. COMPARATIVE KINETICS AND METABOLISM IN LABORATORY ANIMALS AND HUMANS	8
8. EFFECTS ON LABORATORY MAMMALS AND <i>IN VITRO</i> TEST SYSTEMS	8
8.1 Single exposure	8
8.1.1 Inhalation	8
8.1.2 Oral	8
8.1.3 Dermal	8
8.2 Irritation and sensitization	8
8.2.1 Respiratory tract irritation	8
8.2.2 Skin irritation	8
8.2.3 Eye irritation	9
8.2.4 Sensitization	9
8.3 Short-term and medium-term exposure	9
8.4 Long-term exposure and carcinogenicity	9
8.5 Genotoxicity and related end-points	9
8.5.1 <i>In vitro</i> studies in prokaryocytes	9
8.5.2 <i>In vitro</i> studies in mammalian cells	9
8.5.3 <i>In vivo</i> studies in non-mammalian eukaryotes	10
8.5.4 <i>In vivo</i> studies in mammalian cells	10
8.6 Reproductive toxicity	10

9. EFFECTS ON HUMANS	10
9.1 Chamber studies	10
9.2 Case reports	11
9.2.1 Skin effects	11
9.2.2 Ocular effects	12
9.2.3 Respiratory tract effects	12
9.3 Epidemiological studies	13
10. EFFECTS ON OTHER ORGANISMS IN THE LABORATORY AND FIELD	15
11. EFFECTS EVALUATION	15
11.1 Evaluation of health effects	15
11.1.1 Hazard identification and dose-response assessment	15
11.1.2 Criteria for setting tolerable intakes/concentrations or guidance values for methyl cyanoacrylate and ethyl cyanoacrylate	16
11.1.3 Considerations for follow-up	17
11.2 Evaluation of environmental effects	17
12. PREVIOUS EVALUATIONS BY INTERNATIONAL BODIES	17
REFERENCES	18
APPENDIX 1 — SOURCE DOCUMENT	20
APPENDIX 2 — CICAD PEER REVIEW	20
APPENDIX 3 — CICAD FINAL REVIEW BOARD	21
INTERNATIONAL CHEMICAL SAFETY CARDS	22
RÉSUMÉ D'ORIENTATION	26
RESUMEN DE ORIENTACIÓN	27