

CONTENTS

	3
LIST OF PARTICIPANTS	5
NOTE TO THE READER	9
PREAMBLE	11
Background	11
Objective and Scope	12
Selection of Complex Mixtures and of Occupational Exposures for Monographs	13
Working Procedures	13
Data for Evaluations	14
The Working Group	14
General Principles for Evaluating the Carcinogenic Risk of Exposures in Occupations	15
I. INTRODUCTION	23
II. HISTORICAL OVERVIEW	31
III. DESCRIPTION OF THE INDUSTRY: MANUFACTURING PROCESSES	47
IV. CHEMISTRY OF RUBBER COMPOUNDING	89
V. EXPOSURES IN THE WORKPLACE	121
ANNEX: ENVIRONMENTAL MONITORING TECHNIQUES	148
VI. BIOLOGICAL EFFECTS	151
VII. EPIDEMIOLOGICAL STUDIES OF CARCINOGENICITY IN HUMANS	183
VIII. OVERALL SUMMARY AND EVALUATION	227
GLOSSARY	231
APPENDIX 1. CHEMICALS USED OR PRODUCED IN THE RUBBER INDUSTRY	237

APPENDIX 2. CHEMICALS USED OR PRODUCED IN THE RUBBER INDUSTRY THAT WERE PREVIOUSLY EVALUATED IN THE <u>IARC MONOGRAPHS</u> SERIES	367
APPENDIX 3. CHEMICALS USED IN THE PRODUCTION OF SYNTHETIC RUBBER THAT WERE PREVIOUSLY EVALUATED IN THE <u>IARC MONOGRAPHS</u> SERIES	375
CROSS INDEX OF CHEMICALS	381
CUMULATIVE INDEX TO THE MONOGRAPH SERIES	455