WHO FOOD ADDITIVES SERIES: 73

Prepared by the eighty-second meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA)

Safety evaluation of certain food additives





WHO FOOD ADDITIVES SERIES: 73

Prepared by the eighty-second meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA)

Safety evaluation of certain food additives

World Health Organization, Geneva, 2017





Safety evaluation of certain food additives: prepared by the Eighty-second meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA). Geneva: World Health Organization; 2017 (WHO Food Additives Series, No. 73).

Cataloguing-in-Publication data are available at http://apps.who.int/iris.

ISBN 978-92-4-166073-0 ISBN (PDF) 978-92-4-069646-4 ISSN 0300-0923

© WHO and FAO, 2017

All rights reserved. The World Health Organization (WHO) and Food and Agriculture Organization of the United Nations (FAO) encourage the use, reproduction and dissemination of material in this information product. Except where otherwise indicated, material may be copied, downloaded and printed for private study, research and teaching purposes, provided that appropriate acknowledgement of WHO and FAO as the source and copyright holder is given and that WHO and FAO's endorsement of users' views, products or services is not implied in any way.

Publications of the World Health Organization are available on the WHO website (www.who.int) or can be purchased from WHO Press, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland (tel.: +41 22 791 3264; fax: +41 22 791 4857; email: bookorders@who.int).

Requests for permission to reproduce or translate WHO publications – whether for sale or for non-commercial distribution – should be addressed to WHO Press through the WHO website (http://www.who.int/about/licensing/copyright_form/en/index.html).

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of WHO or of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that the are or have been endorsed or recommended by WHO or FAO in preference to others of a similar nature that are not mentioned.

Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters. All reasonable precautions have been taken by WHO and FAO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO and FAO be liable for damages arising from its use.

The views expressed herein are those of the authors and do not necessarily represent those of WHO or FAO.

Design: Rania Spatha (www.raniaspatha.com)

Printed in Malta

CONTENTS

Preface	V
Safety evaluations of specific food additives (other than flavouring agents)	1
Allura Red AC (addendum)	3
Carob bean gum (addendum) ¹	47
Pectin (addendum) ¹	73
Quinoline Yellow (addendum)	87
Rosemary extract	123
Steviol glycosides (addendum)	181
Tartrazine (addendum)	219
Xanthan gum ¹	269
Safety evaluations of groups of related flavouring agents	327
Introduction	329
Alicyclic, alicyclic-fused and aromatic-fused ring lactones (addendum)	333
Aliphatic and aromatic amines and amides (addendum)	343
Aliphatic secondary alcohols, ketones and related esters (addendum)	383
Cinnamyl alcohol and related substances (addendum)	403
Tetrahydrofuran and furanone derivatives (addendum)	437
Annex 1	
Reports and other documents resulting from previous meetings of the Joint FAO/WHO Expert Committee on Food Additives	467
Annex 2	
Abbreviations used in the monographs	479
Annex 3	
Participants in the eighty-second meeting of the Joint FAO/WHO Expert Committee on Food Additives	483
Annex 4	
Toxicological and dietary exposure information and information on specifications	487

¹ For use in infant formula and formula for special medical purposes intended for infants.

PREFACE

The monographs contained in this volume were prepared at the eighty-second meeting of the Joint Food and Agriculture Organization of the United Nations (FAO)/World Health Organization (WHO) Expert Committee on Food Additives (JECFA), which met at WHO headquarters in Geneva, Switzerland, on 7–16 June 2016. These monographs summarize the data on selected food additives, including flavouring agents, reviewed by the Committee.

The eighty-second report of JECFA has been published by WHO as WHO Technical Report No. 1000. Reports and other documents resulting from previous meetings of JECFA are listed in Annex 1. The participants in the meeting are listed in Annex 3 of the present publication. A summary of the conclusions of the Committee with respect to the food additives discussed at the meeting is given in Annex 4.

JECFA serves as a scientific advisory body to FAO, WHO, their Member States and the Codex Alimentarius Commission, primarily through the Codex Committee on Food Additives, the Codex Committee on Contaminants in Food and the Codex Committee on Residues of Veterinary Drugs in Foods, regarding the safety of food additives, residues of veterinary drugs, naturally occurring toxicants and contaminants in food. Committees accomplish this task by preparing reports of their meetings and publishing specifications or residue monographs and dietary exposure and toxicological monographs, such as those contained in this volume, on substances that they have considered.

The monographs contained in this volume are based on working papers that were prepared by WHO experts. A special acknowledgement is given at the beginning of each monograph to those who prepared these working papers. The monographs were edited by J. Odrowaz, Toronto, Canada.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the organizations participating in WHO concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the organizations in preference to others of a similar nature that are not mentioned.

Any comments or new information on the biological or toxicological properties of or dietary exposure to the compounds evaluated in this publication should be addressed to: WHO Joint Secretary of the Joint FAO/WHO Expert Committee on Food Additives, Department of Food Safety and Zoonoses, World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland.



https://www.yunbaogao.cn/report/index/report?reportId=5_26254



