



CHEMICAL MANUFACTURERS ASSOCIATION

D. Lee
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August 15, 1986

TO: Health and Safety Contacts of CMA Member Companies

FROM: Nancy G. Doerr *Nancy*
Manager, Health, Safety and Chemical Regulations

SUBJECT: IARC's Classification of Potential Chemical Carcinogens

On July 10, 1986 a memo was sent to each of you requesting your participation in a project to provide effective industry input at two upcoming meetings of the International Agency for Research on Cancer (IARC). A copy of that memo is attached for your review. A significant response was received from CMA member companies. This memo serves as a second notice on the project to those of you who have not yet responded.

CMA has been invited to nominate an observer to attend the IARC meetings. As a representative of U.S. industry, the observer will be charged with communicating to the IARC Committee pertinent chemical-specific information that may impact carcinogenicity evaluations. Since the chemicals/exposures to be considered number approximately 200, CMA has requested that your company selectively identify chemicals on the list, collect and assess current information on short-term tests and carcinogenicity, and make evaluations of carcinogenicity for those chemicals. The information will then be used to prepare the CMA observer prior to the IARC meetings. The attached memo explains the project in greater detail.

If you are interested in having your company's chemicals represented at the upcoming IARC meetings, please return the attached form no later than Tuesday, September 2. I can be reached at 202/887-1282 with your questions and comments.

Attachments

BOR 007557

RECEIVED

DR.

July 10, 1986

TO: Health and Safety Contacts of CMA Member Companies

FROM: Nancy G. Doerr *Nancy*
Manager, Health, Safety and Chemical Regulations

SUBJECT: IARC's Classification of Potential Chemical Carcinogens

The Chemical Manufacturers Association has been invited to nominate an observer to participate in two upcoming meetings of the International Agency for Research on Cancer (IARC). With the promulgation of the OSHA Hazard Communication Standard, these meetings have increased significance for the chemical industry in its duty to warn against potential human carcinogens. You are being asked to review a list of chemicals, to identify those substances of interest to your company, and to contact CMA by July 28, 1986, with nominations of company experts for proper chemical-specific representation of your scientific views.

BACKGROUND

A Working Group of experts chosen by IARC will meet in Lyon, France, from December 2-9, 1986, to assess the activity of approximately 200 chemicals and complex mixtures in short-term tests. At a second meeting, to be held in Lyon from March 10-17, 1986, the degrees of evidence for carcinogenicity in humans and experimental animals will be assessed for these chemicals and exposures. An overall evaluation of carcinogenic risk to humans will then be made based on experimental and epidemiological data. The list of chemicals/exposures is attached for your review. These substances have previously been evaluated by IARC in volumes 1-41 of the Monographs, but are under a second review because of the existence of new data.

INDUSTRY PARTICIPATION

The CMA Health and Safety Committee has established an IARC Work Group to organize industry participation in these two important meetings. The number of chemicals and short time period for assessment of this list has dictated a method of action that requires full CMA member company participation. Since a single CMA observer will be expected to have technical knowl-

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edge of each of the chemicals to be considered at the Monograph meetings, the CMA IARC Work Group has constructed a tentative scheme to prepare the observer.

During the month of July 1986, the CMA IARC Work Group requests that you identify all chemicals on the attached list that your company manufactures, produces, or that present a specific concern. Next, you should identify company expert(s), e.g. toxicologists, pathologists, or health specialists, who will be asked in the upcoming months to collect and evaluate all available published and unpublished scientific data, with special emphasis on short-term test data and carcinogenicity information. A classification for carcinogenicity on each chemical will be made by your expert(s) using the IARC system. (IARC uses the classifications 1, 2a, 2b and 3 to evaluate potential chemical carcinogens. This system is discussed and described in the Preamble to the IARC Monographs.)

CMA recognizes that there may be significant overlap in company interests in a given chemical. When we receive your list of chemicals and names of company experts, we will initiate joint discussions with you and other member companies who have expressed the same interest to equitably distribute the task of literature searching and carcinogen evaluation. Additionally, the work load for this project will be divided into two phases: 1) collection and evaluation of data on short-term tests in preparation for the December 1986 IARC meeting; and 2) collection and evaluation of data leading to carcinogen classifications in preparation for the March 1987 meeting. More specific instructions, recommendations, and a time schedule for completion of this project will be made available when you submit written confirmation of your participation in the process.

IARC issues draft working papers 4-6 weeks in advance of the Monograph meetings. This short review period is inadequate to evaluate chemicals of concern to industry, and does not provide the time necessary to train an industry observer. Our proactive efforts to evaluate chemicals for carcinogenicity, as described above, will thus provide us with a timely and accurate comparison of proposed industry/IARC classifications. We will have a full month to identify those chemicals likely to produce debate or controversy, and can prepare the CMA observer for the discussions.

The CMA observer will not have a vote at the upcoming Monograph meetings, but will have the opportunity to contribute to discussions concerning the scientific evidence for classifying chemicals as carcinogens. The nomination of this observer will consist of careful selection from a list of names generated by representatives of CMA member companies. The CMA IARC Work Group encourages you to suggest potential nominees in the coming months.

CMA will provide the administrative assistance in collecting member company assessments on the 200 chemicals/exposures, nominating an industry observer to attend the meetings, and training the observer in communicating chemical-specific issues at the Monograph meetings.

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CMA
Health and Safety Contacts
July 10, 1986
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In conclusion, CMA asks that you assist the industry in providing a rational, scientific evaluation of carcinogenicity for chemicals under IARC review. Please make the appropriate identifications specified below, fill out the attached form, and return to CMA no later than July 28, 1986:

- o Identify chemicals/exposures on the attached list that are of specific concern to your company.
- o Identify company expert(s) to assess the health effects literature and to evaluate the carcinogenic data on chemicals of concern to your company.

A second notice will be issued in early August to solicit additional participation from CMA member companies on a chemical-specific basis. Your prompt attention will facilitate the organization and administration of this project. Nancy G. Doerrler of CMA's Health, Safety and Chemical Regulations Division can be reached at 202/887-1282 with your responses, questions, and comments.

Attachments

BOR 007560

CHEMICAL MANUFACTURERS ASSOCIATION

INDUSTRY PARTICIPATION IN
IARC'S CLASSIFICATION OF POTENTIAL CHEMICAL CARCINOGENS

RETURN TO: Nancy G. Doerrer
Chemical Manufacturers Association
2501 M Street, NW
Washington, D.C. 20037
(202/887-1282)

RETURN BY: July 28, 1986

<u>CHEMICALS/EXPOSURES</u>	<u>COMPANY EXPERT(S)</u>	<u>TELEPHONE NUMBER</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

NAME _____

COMPANY NAME _____

ADDRESS _____

TELEPHONE NUMBER _____

Signed _____

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**IARC MONOGRAPHS ON THE EVALUATION OF THE CARCINOGENIC RISK OF CHEMICALS
TO HUMANS: CHEMICALS AND INDUSTRIAL PROCESSES ASSOCIATED WITH CANCER
IN HUMANS: UPDATING OF SUPPLEMENT 4 (PART I & PART II)**

TENTATIVE LIST OF SUBSTANCES AND EXPOSURES TO BE CONSIDERED

(At IARC Monograph Meetings December 2-9, 1986, and March 10-17, 1987)

Exposure	Exposure
Acetaldehyde	Benzidine-based dyes: Direct Black 38 Direct Blue 6 Direct Brown 95
Acrolein	Beryllium and beryllium compounds
Acrylonitrile	Betel quid with and without tobacco (chewing) Betel leaf Areca nut
Actinomycin D	N,N'-Bis(2-chloroethyl)-2-naphthyl- amine (Chlornaphazine)
Adriamycin	Bischloroethyl nitrosourea (BCNU)
Aflatoxins	Bis(chloromethyl)ether and technical- grade chloromethyl methyl ether
Aldrin	Bitumens
Aluminium production	Bleomycins
4-Aminobiphenyl	Boot and shoe manufacture and repair
Amitrole	Bracken fern
Anaesthetics, volatile	1,3-Butadiene
Analgesic mixtures containing phenacetin Phenacetin	1,4-Butanediol dimethanesulphonate (Myleran)
Aniline (and its hydrochloride)	Cadmium and cadmium compounds
Arsenic and arsenic compounds	Carbon blacks
Asbestos	Carbon tetrachloride
Attapulgate	Carpentry and joinery
Auramine, manufacture of Auramine	Chemotherapy for lymphomas: MOPP, etc.
Azathioprine	Chlorambucil
Benzene	Chloramphenicol
Benzidine	Chlordane/Heptachlor

Exposure

Chlorinated toluenes, production of:

Benzal chloride
Benzotrichloride
Benzoyl chloride
Benzyl chloride

1-(2-Chloroethyl)-3-cyclohexyl-1-nitrosourea (CCNU)

Chloroform

Chlorophenols

2,4-Dichlorophenol
Pentachlorophenol
2,3,4,6-Tetrachlorophenol
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol

Chloroprene

Cholesterol

Chromium and chromium compounds

ortho-Chrysoidine

Cisplatin

Clofibrate

Coal gasification

Coal-tar pitches

Coal-tars

Coke production

Creosotes

Cyclamates

Cyclophosphamide

Dacarbazine

Dapsone

DDT

Diazepam

1,2-Dibromo-3-chloropropane

Exposure

ortho-Dichlorobenzene and
para-Dichlorobenzene

3,3'-Dichlorobenzidine

Dichloromethane

1,3-Dichloropropene

Dieldrin

Diethyl sulphate

3,3'-Dimethoxybenzidine (ortho-
Dianisidine)

Dimethylcarbamoyl chloride

Dimethyl sulphate

1,4-Dioxane

Epichlorohydrin

Erionite

Ethylene dib' amide

Ethylene oxide

Ethylene thiourea

Fluorides (inorganic, in drinking-
water)

5-Fluorouracil

Formaldehyde

Furniture and cabinet making

Haematite mining, underground (with
exposures to radon)
Haematite (iron oxide)

Hexachlorobenzene

Hexachlorocyclohexane

Hydralazine

Hydrazine

Iron and steel founding

Exposure	Exposur
Iron dextran complex	Nickel refining Nickel and nickel compounds
Isonicotinic acid hydrazide	Nitrogen mustard
Isopropyl alcohol manufacture (strong-acid process) Isopropyl alcohol Isopropyl oils	Ochratoxin A
Lead and lead compounds	Oxymetholone
Leather dusts	Phenazopyridine (and its hydrochloride)
Leather goods manufacture	Phenelzine
Leather tanning and processing	Phenobarbital
Lumber and sawmill industry	Phenoxyacid herbicides 2,4-D and esters 2,4-DP MCPA MCPP Silverx 2,4,5-T and esters
Magenta, manufacture of Magenta	Phenylbutazone
Melphalan	N-Phenyl-2-naphthylamine
6-Mercaptopurine	Phenytoin
Methotrexate	Polybrominated biphenyls
5-Methoxypsoralen (+ UVR)	Polychlorinated biphenyls
6-Methoxypsoralen (+ UVR)	Prednisone
Methyl bromide	Procarbazine hydrochloride
4,4'-Methylene bis(2-chloroaniline) (MOCA)	Propylene oxide
4,4'-Methylene bis(2-methylaniline)	Propylthiouracil
N-Methyl-N'-nitro-N-nitrosoguanidine	Pulp and paper manufacture
Metronidazole	Reserpine
Mineral oils	Rubber industry
Mustard gas	Saccharin
1-Naphthylamine	Sepiolite
2-Naphthylamine	
1-Naphthylthiourea	

Exposure

Sex hormones:

Combined oral contraceptives
Sequential oral contraceptives
Other oestrogen-progestin combinations

Androgens:

Testosterone

Oestrogens:

Chlorotrianisene
Conjugated oestrogens
Dieneoestrol
Diethylstilboestrol
Diethylstilboestrol dipropionate
Ethinylloestradiol
Hexoestrol
Mestranol
Oestradiol-17 β and esters
Oestriol
Oestrone and oestrone benzoate

Progestins:

Chlormadinone acetate
Dimethisterone
Ethinodiol diacetate
17 α -Hydroxyprogesterone caproate
Lynoeestrenol
Medroxyprogesterone acetate
Megestrol acetate
Norethisterone
Norethisterone acetate
Norethynodrel
Norgestrel
Progesterone

Other:

Clomiphene
Clomiphene citrate

Shale-oils

Silica

Smokeless tobacco products

Soots (and soot extracts)

Spironolactone

Styrene

Sulfafurazole

Sulfamethoxazole

Talc

Exposure

Tetrachlorodibenzo-para-dioxin
(TCDD)

1,1,2,2-Tetrachloroethane

Tetrachloroethylene

Tobacco smoke

2,4- and 2,6-Toluene diisocyanates

ortho-Toluidine

Treosulphan

Trichloroethylene

4,5',8-Trimethylpsoralen (+ UVR)

Tris(aziridinyl)-para-benzoquinone
(Triaziquone)

Tris(1-aziridinyl) phosphine sulphide
(Thiotepa)

Uracil mustard

Vinblastine sulphate

Vincristine sulphate

Vinyl chloride

Vinylidene chloride

Wollastonite

Wood dusts

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