WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTÉ

BALF GD Mee

For your info. Paul Jonmaire has complete set of monographs. Most plants have asbestos for insulation.

CENTRE INTERNATIONAL DE RECHERCHE SUR LE CANCER
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In reply please refer to C2/12/12
Prière de rappeler la référence :

22 February 1982

Dear Dr Harris,

Thank you for your prompt reply to my request to review the section on Industrial Processes for the Rubber Monograph. The comments were very helpful and have been passed on to Mrs Heseltine for incorporation into the section.

For your information, I have enclosed the Summary Table from our meeting in February; please refer to Supplement 1 of the Monographs for an explanation of the terms used in the table, although please note that the text and definitions in Supplement 3 (in which this table will be included) were somewhat modified by the February Working Group.

Thank you again for your extensive contribution to the monographs programme.

With best regards.

Yours sincerely

Lynne

Lynne Haroun
Retrieval and Coordination of Carcinogenicity Data
Division of Environmental Carcinogenesis

Dr W.D. Harris
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PS: As in Supplement 1, a descriptive evaluation for each chemical or industry will appear in Supplement 3; that for the Rubber Industry will be based on the summary table prepared by the June Working Group.

Summary evaluations of carcinogenic risk to humans[a] from chemicals, industries and industrial processes
based on
evidence for carcinogenicity in humans and in animals[1] and for activity in short-term tests

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Acrylonitrile	limited	sufficient	sufficient	2A
Actinomycin D	inadequate	limited	sufficient	2B
Adriamycin	inadequate	sufficient	sufficient	2B
Aflatoxins	limited	sufficient	sufficient	2A
Aldrin	inadequate	limited	inadequate	3
Amitrole	inadequate	sufficient	inadequate	2B
Anaesthetics volatile	inadequate	inadequate	inadequate	3
Aniline	inadequate	limited	inadequate	3
Auramine (technical grade)	limited	limited	sufficient	2B
Manufacture of Auramine	sufficient	-	-	1
Azathioprine	sufficient	limited	limited	1
BCNU	inadequate	sufficient	sufficient	2B

[a] In IARC Monographs 1-29, for which data in humans were available

[1] This table does not include known human carcinogens such as tobacco smoke, betel quid and alcohol beverages since they have not yet been considered in the IARC Monographs

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Benzyl chloride	inadequate	limited	sufficient	3
Benzoyl chloride	inadequate	inadequate	inadequate	3
Benzal chloride	inadequate	limited	limited	3
Benzotrichloride	inadequate	sufficient	limited	2B
Beryllium and beryllium compounds	limited	sufficient	inadequate	2A
Bleomycin	inadequate	inadequate	sufficient	3
Boot and shoe manufacture and repair (certain occupations)	sufficient	-	-	1
Cadmium and cadmium compounds	limited	sufficient	inadequate	2B
Carbon tetrachloride	inadequate	sufficient	inadequate	2B
Carpenters and joiners (certain exposures)	inadequate	-	-	3
CCNU	inadequate	sufficient	sufficient	2B
Certain combined chemotherapy for lymphomas (including MOPP)	sufficient	-	-	1
Chlorambucil	sufficient	sufficient	sufficient	1
Chloramphenicol	limited	inadequate	inadequate	2B

[a] In IARC Monographs 1-29, for which data in humans were available

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Chlordane/Heptachlor	inadequate	limited	inadequate	3
Chloroform	inadequate	sufficient	inadequate	2B
✓ Chloroprene	inadequate	inadequate	sufficient	3 chloroprene rubber used. Toxic only
Cisplatin	inadequate	limited	sufficient	2B
Clofibrate	inadequate	limited	inadequate	3
Clomiphene	inadequate	inadequate	no data	3
Cyclamates	inadequate	limited	inadequate	3
Cyclophosphamide	sufficient	sufficient	sufficient	1
✓ 2,4-D and esters (see also phenoxy acetic acid esters)	inadequate	inadequate	inadequate	3
Dacarbazine	inadequate	sufficient	limited	2B
Dapsone	inadequate	limited	inadequate	3
DDT	inadequate	sufficient	inadequate	2B
Benzidine based dyes				
Direct Black 38 (technical grade)	inadequate	sufficient	inadequate	2B
Direct Blue 6 (technical grade)	inadequate	sufficient	no data	2B
Direct Brown 95 (technical grade)	inadequate	limited	no data	2B

[a] In IARC Monographs 1-29, for which data in humans were available

URL 05112

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
ortho-Dichlorobenzene para-Dichlorobenzene	inadequate	inadequate	inadequate	3
✓ 3,3'-Dichlorobenzidine	inadequate	sufficient	limited	2B do we still sell ?
Dichloromethane	inadequate	inadequate	inadequate	3
Dieldrin	inadequate	limited	inadequate	3
Diethyl sulphate	limited	sufficient	sufficient	2A
3,3'-Dimethoxybenzidine (ortho-Dianisidine)	inadequate	sufficient	limited	2B
Dimethylcarbamoyl chloride	inadequate	sufficient	sufficient	2B
Dimethyl sulphate	inadequate	sufficient	sufficient	2A
1,4-Dioxane	inadequate	sufficient	inadequate	2B
Epichlorohydrin	inadequate	sufficient	sufficient	2B
Ethylene dibromide	inadequate	sufficient	sufficient	2B
✓ Ethylene oxide	inadequate	limited	sufficient	2B do we use any ??
Ethylene thiourea	inadequate	sufficient	limited	2B
5-Fluorouracil	inadequate	inadequate	limited	3
✓ Formaldehyde (gas)	inadequate	sufficient	sufficient	2B

URL 05113

[a] In IARC Monographs 1-29, for which data in humans were available

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Furniture manufacture	sufficient	-	-	1
Underground haematite mining with radon	sufficient	-	-	1
Haematite	inadequate	inadequate	inadequate	3
Hexachlorocyclohexane	inadequate	limited	inadequate	3
Hydralazine	inadequate	limited	sufficient	3
Hydrazine	inadequate	sufficient	sufficient	2B
Iron dextran complex	inadequate	sufficient	inadequate	3
Isonicotinic acid hydrazide	inadequate	limited	limited	3
Manufacture of isopropyl alcohol (strong-acid process)	sufficient	-	-	1
Isopropyl oils	inadequate	inadequate	no data	3
Lead and lead compounds	inadequate	sufficient (for some salts)	inadequate	3
Leather goods manufacture	inadequate	-	-	3
Leather tanning	inadequate	-	-	3
Lumber and sawmill industry	inadequate	-	-	3

[a] In IARC Monographs 1-29, for which data in humans were available

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Manufacture of magenta	limited	-	-	2A
Magenta (technical grade)	inadequate	inadequate	inadequate	3
6-Mercaptopurine	inadequate	inadequate	sufficient	3
Methotrexate	inadequate	inadequate	sufficient	3
Methoxsalen with UVA therapy (PUVA)	sufficient	sufficient	sufficient	1
Metronidazole	inadequate	sufficient	inadequate	2B
Myleran	sufficient	limited	sufficient	1
1-Naphthylamine	inadequate	inadequate	sufficient	3
Nickel and certain nickel compounds and/or nickel refining	sufficient	sufficient	inadequate	1
Nitrogen mustard and its hydrochloride	inadequate	sufficient	sufficient	2A
Oestrogens and progestins				
Combined oral contraceptives	limited*	-	inadequate	2A
Sequential oral contraceptives	limited	-	-	2B

[a] In IARC Monographs 1-29, for which data in humans were available

* Sufficient for liver adenomas

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Other oestrogen-progestin combinations	inadequate	-	-	3
Conjugated oestrogens	sufficient	inadequate	inadequate	1
Dienoestrol	limited	inadequate	inadequate	2B
Ethinyloestradiol	inadequate	sufficient	inadequate	2B
Mestranol	inadequate	sufficient	inadequate	2B
17-beta Oestradiol	inadequate	sufficient	inadequate	2B
Chlormadinone acetate	inadequate	limited	no data	3
Dimethisterone	inadequate	inadequate	no data	3
Ethynodiol diacetate	inadequate	limited	no data	3
17-alpha Hydroxy-progesterone caproate	inadequate	inadequate	no data	3
Lynoestrenol	inadequate	inadequate	no data	3
Medroxyprogesterone acetate	inadequate	limited	inadequate	3
Norethisterone	inadequate	sufficient	no data	2B
Norethynodrel	inadequate	limited	no data	3
Norgestrel	inadequate	inadequate	no data	3
Progesterone	inadequate	sufficient	no data	2B
Oxymetholone	limited	no data	no data	2A
Pentachlorophenol	inadequate	inadequate	inadequate	3

[a] In IARC Monographs 1-29, for which data in humans were available

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Analgesic mixtures containing phenacetin	sufficient	limited	inadequate	1
Phenacetin	limited	sufficient	limited	2A
Phenazopyridine	inadequate	sufficient	no data	2B
Phenelzine	inadequate	limited	inadequate	3
Phenobarbital and its sodium salt	inadequate	limited	inadequate	3
Phenyl butazone	inadequate	no data	inadequate	3
N-Phenyl-2-naphthylamine	inadequate	inadequate	inadequate	3
Phenytoin and its sodium salt	limited	limited	inadequate	2B
Polychlorinated biphenyls	inadequate	sufficient	inadequate	2B
Prednisone	inadequate	inadequate	inadequate	3
Procarbazine	inadequate	sufficient	sufficient	2A
Propylthiouracil	inadequate	sufficient	no data	2B
Pulp and paper manufacture (certain exposures)	inadequate	-	-	3
Reserpine	inadequate	limited	inadequate	3
Rubber industry (certain occupations)	sufficient	-	-	1
Saccharin	inadequate	limited	inadequate	3
Spironolactone	inadequate	limited	no data	3

[a] In IARC Monographs 1-29, for which data in humans were available

URL 05117

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Styrene	inadequate	limited	sufficient	3
Styrene oxide	inadequate	limited	sufficient	3
Sulfafurazole	inadequate	inadequate	inadequate	3
Sulfamethoxazole	inadequate	limited	inadequate	3
Phenoxy acetic acid herbicides (occupational exposures to)	limited	-	-	2B
Chlorophenols (occupational exposures to)	limited	-	-	2B
2,4,5-T and esters	inadequate	inadequate	inadequate	3
Tetrachlorodibenzo-*para*-dioxin	inadequate	sufficient	inadequate	2B
Tetrachloroethylene	inadequate	limited	inadequate	3
ortho-Toluidine and its hydrochloride	inadequate	sufficient	sufficient	2A
Treosulphan	sufficient	no data	inadequate	1
Trichloroethylene	inadequate	limited	inadequate	3
2,4,5-Trichlorophenol	inadequate	inadequate	no data	3
2,4,6-Trichlorophenol	inadequate	sufficient	no data	2B
Tris(aziridinyl)-*para*-benzoquinone (Triaziquinone)	inadequate	limited	sufficient	2B
Tris(1-aziridinyl)-phosphine sulphide (Thiotepa)	inadequate	sufficient	sufficient	2B

[a] In IARC Monographs 1-29, for which data in humans were available

URL 05118

for Agent Orange suit

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
Uracil mustard	inadequate	sufficient	sufficient	2B
Vinblastine	inadequate	inadequate	inadequate	3
Vincristine	inadequate	inadequate	inadequate	3
Vinylidene chloride	inadequate	limited	limited	3

[a] In IARC Monographs 1-29, for which data in humans were available

Chemical, process or industry	Evidence for carcinogenicity in humans	Evidence for carcinogenicity in animals	Evidence for activity in short-term tests to humans	Summary evaluation of carcinogenic risk
4-Aminobiphenyl	sufficient	sufficient	sufficient	1
Arsenic and arsenic compounds	sufficient	inadequate	limited	1
Asbestos	sufficient	sufficient	inadequate	1
Benzene	sufficient	limited	limited	1
Benzidine	sufficient	sufficient	sufficient	1
N,N-Bis(2-chloroethyl)-2-naphthylamine	sufficient	limited	limited	1
Bis(chloromethyl)ether and technical grade chloromethyl methyl ether	sufficient	sufficient	limited	1
Chromium and certain chromium compounds	sufficient	sufficient	sufficient	1
Diethylstilboestrol	sufficient	sufficient	inadequate	1
Melphalan	sufficient	sufficient	sufficient	1
Mustard gas	sufficient	limited	sufficient	1
2-Naphthylamine	sufficient	sufficient	sufficient	1
Soots, tars and mineral oils	sufficient	sufficient	sufficient	1
Benzo(a)pyrene	inadequate	sufficient	sufficient	2A
Vinyl chloride	sufficient	sufficient	sufficient	1

[a] In IARC Monographs 1-29, for which data in humans were available