MONSANTO CHEMICALS LIMITED · INTER-OFFICE MEMO

TO: DR. J. W. BARRETT (2)RUABON. DATE: 30.8.49. C.C. TO: J.A.C. M.N.S.

FROM: M. N. Strachan. SUBJECT: AROCLOR TOXICITY SUMMARY OF REFERENCES

REFERENCE: MNS/CK

No adequate summary is available on this subject. I have attempted to summarize the facts at present in our possession.

I. M.C.L. STATEMENTS.

As far as I know, we only publish one technical service bulletin on Aroclors (G2) and this states:

"TOXICITY - Prolonged exposure to AROCLOR vapours will lead to systemic toxic effects. However, this is not significant except at high temperatures and then normal draught ventilation will remove any risk. Acne-form skin eruptions may arise from continued bodily contact with liquid AROCLORS, but normal precautions and, if necessary, suitable garments provide adequate protection. Toxic effects will follow considerable oral ingestion, but this hazard is unlikely to be encountered".

II. M.C.C. STATEMENTS.

(A) The most useful statement is given in Bulletin P115 (page 19) under the following headings:

(1) Dermatology (a) Arocolor 1254 in P.V.C. film.
(b) Arocolor 1254 alone.
(c) Arocolor 5460 in painted fabric.

(2) Treatment of burns from hot Arocolors.

(3) Toxicity of Arocolor Vapours.

Copies passed to Dr. Newman.

MONS 095208

EXHIBIT 11

(B) Bulletin P134 (page 5) repeats 1(a) and 1(b) above, adding a little detail.

(C) Bulletin P132 (page 7) repeats 3 above, and adds details regarding 1(c).

(D) Bulletin P138 (page 4) repeats 1(a) and 1(b), and then deals with problems arising in the use of Aroclor 1254 for the manufacture of paper draperies.

(E) Technical Bulletins P124, 126, 128, 130, 131, make no reference to toxicity.

(F) A circular from P.G. Benignus to Phosphate Division Salesman (dated 23.7.48) describes the use of Aroclor 1254 as the plasticiser in a composition for sealing cracks in glass-lined tanks used in the brewing industry.

(G) According to our pre-print of the paper on Aroclor 1248, which has now appeared in Ind. Eng. Chem., - "An Indirect Heater for Unit Chemical Operations" (McArdle, Garrett, Benignus):
2 and 3 above are repeated, with some further details.

III. GENERAL LITERATURE.

(A) References are made by Fanning (Paint Technology 1938, 1, No. 6, p.231) to the toxicity of Aroclors but this data would appear to be incorrect in the light of later publications.

(B) Paper of C.K. Drinker J. Ind. Hygiene Toxicology, 1939, 21, 155 - This publication deals with toxicity of Aroclor vapours; certainly it must refer to Aroclor 1248.

(C) Paper by L. Schwartz and S.M. Peck - Reprint 2552 from U.S.A. Public Health Reports Vol. 59, No. 17 (April 28, 1944). This deals with Dermatology of Aroclor 5460 - Patch tests on fabrics treated with Aroclor 5460 and an alkyd resin.

(D) "Industrial Hygiene and Toxicology, F.A. Patty (Interscience, New York, 1948) Vol. 1, page 197. Toxic limits of various dusts and fumes are given, including chlorodiphenyls.

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