

Monsanto

FROM (NAME & LOCATION)

Medical, A2SC

April 9, 1974

CC

SUBJECT

REFERENCE

TO

Dr. R. E. Kelly
A2SA

Attached are the abstracts of articles, obtained from a recent TOXLINE search, dealing with the subacute and chronic toxicity of the following chemicals:

- 1) Acrylonitrile
- 2) Ethylene
- 3) Styrene
- 4) Vinyl Acetate
- 5) Vinyl Chloride Monomer - and PVC
- 6) Vinylidene Chloride

No articles dealing with the toxicity of vinyl bromide were recovered.

All available volumes (original to 1969 listings) of the PHS-149 monograph series have also been searched for reference to relevant articles. Information was available on:

Styrene

(taken from PHS-149, original volume)

Kennaway, E.L., 1930, Biochem. J. 24: 497-504

- skin painting of mice resulted in no tumors

Styrene

(taken from PHS-149, Vol. II)

Wolf, M.A., Rowe, V.K., McCollister, D.D., Hollingsworth, R.L., and Oyen, I., 1956, Arch. Industr. Health 14: 387-398.

a) Rats (M&F white) - ave. conc. of 9.3 mg/L. vapor inhaled for (105) 7 hr. exposures - 148 d. duration
No tumors; conjunctivitis & rhinitis.

b) Rats (M&F white) - ave. conc. of 6.0-6.3 mg/L. vapor for (139) 7 hr. exposures - 214 d. duration
results - as above, no tumors.

c) Rabbits (M&F) [1] ave. conc. of 3.0 mg/L. for (130) 7 hr. exposures and [2] ave. conc. of 6.0-6.3 mg/L. for (264) 7 hr. exposures
No tumors.

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d) Rhesus Monkeys (M&F) - ave. conc. of 6.0-6.3 mg/L. for (264) 7 hr. exposures - 360 d. duration
No tumors.

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e) Guinea pigs - ave. conc. of 9.3 mg/L. for
(98) 7 hr. exposures, or 6.0-6.3 mg/L. for (139)
7 hr. exposures, or 3.0 mg/L. for (130) 7 hr.
exposures
No tumors
Conjunctivitis & rhinitis in 2 higher levels.

Vinyl Chloride Polymer
(taken from PHS-149, Vol. I)
Oppenheimer, B.S., E. T. Oppenheimer and A.P. Stout.
1952, Proc. Soc. Exper. Biol. & Med. 79: 366-369.

-45 Wistar rats - VCP film administered s.c.
44 alive at 189 d. - duration of experiment -
>22 month

-Results -
14 sarcomas; 12 fibrosarcomas; 1 liposarcoma;
1 unclassif. malignancy
1st tumor appeared at 189 d.



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/bkp

att.

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