

CHEMICAL HYGIENE FELLOWSHIP

KEY TO TOXICITY TESTS

Number

Name

- 1-----Peroral, single dose to standard rats
- 2-----Peroral, single dose to other animals
- 3-----Oral, subacute (usually 90 days or less)
- 4-----Oral, chronic (lifetime or 2 years)
- 5-----Parenteral (subcutaneous, intraperitoneal, intravenous, etc.)
- 6-----Skin Penetration, rabbits (24-hour contact under impervious sheeting)
- 7-----Skin Penetration, rats (4-hour contact under impervious sheeting)
- 8-----Skin Penetration, subacute (usually less than 90 days), 1 hour contact, 5 days per week
- 9-----Skin Absorption (quantitative using tagged compounds)
- 10-----Inhalation, single--saturated vapor at room temperature, 20 to 25°C
- 11-----Inhalation, single--mist (at 170°C or selected temperature)
- 12-----Inhalation, single--fog (aerosol of 1 to 2 micron particle size)
- 13-----Inhalation, single--measured concentration (ppm or mg/liter)
- 14-----Inhalation, subacute (usually 90 days or less, 6 or 7 hours per day, 5 days per week)
- 15-----Metabolism, animal *in vivo* and *in vitro* on either biopsy or surgical specimens
- 16-----DOT Corrosive, 4-hr
- 17-----Rabbit Belly, irritation (single application, uncovered)
- 18-----Rabbit Belly, irritation (4-hour, eight applications)
- 19-----Rabbit Belly; irritation *via* repeated application (3x daily for up to 3 days)
- 20-----Rabbit Eyelid, irritation, to classify bland materials
- 21-----Rabbit Cornea, volume and concentration to produce injury
- 22-----Rabbit Cornea, injury from vapor
- 23-----Mouse Skin Painting, for carcinogenicity
- 24-----Rabbit Ear, chloracne formation
- 25-----Guinea Pig, Landsteiner (sensitization *via* intradermal or topical application)
- 26-----Human Patch Test (sensitization)
- 27-----Organoleptic Tests
- 28-----Wear Test (FDA), miscellaneous irritation and wound healing
- 29-----Bacteriology, miscellaneous biochemical tests
- 30-----3-Generation Reproduction and Lactation
- 31-----Teratology
- 32-----Mutagenicity
- 33-----Demyelination
- 34-----Cholinesterase and/or other Enzyme Studies
- 35-----Joint Action, to detect potentiation or antidotal response
- 36-----Literature Reviews
- 37-----Endotracheal Injection
- 38-----Pyrolysis (identification and toxicity studies)

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Chemical Hygiene Fellowship
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UCC 089031

Vinyl resins, various

Not App

Vinyl Resin
(Emulsion polymerized acetate)

Single Oral Dose to rats

50 ml./kg. of emulsion killed 0/6

Sensitization of Human Skin, Patch Test (Monthly Rpt. 2-29-44)

Water dispersion dried on gauze applied to 32 subjects gave no sensitizations

9-30-53

3959
(Replaces B-83)

Vinyl Resins

Card 1

Vinyl Resins

Card 2

Sensitization of human Skin, Patch Test

Resin	<u>Sheeted from Solvent</u>			<u>Applied as Powder</u>		
	Subjects	Sensitizations	Report	Subjects	Sensitizations	Report
VYAB	22	6% trace	(1)	23	0	(2)
VYAM	33	0	(1)	23	0	(2)
QYNA	33	6% trace	(1)			
VMCH	33	3% trace	(1)	23	0	(2)
VYCN	33	10% trace	(1)	23	0	(2)
VYHH	33	6% definite	(1)			
VYNC	33	9% trace	(1)	11	0	(3)
VYNS reg'l	54	10% trace	(1)	10	0	(3)
VYNS G. L.	22	10% trace	(1)	23	0	(2)
VYNU	33	0% trace	(1)			
VYNW	53	8% trace	(1)	19	5% trace	(3)
VYUC	23	0% definite	(1)	23	0	(2)
VYSG	22	3% trace	(1)			

(1) Monthly Rpt. 2-29-44; (2) Monthly Rpt. 12-31-43; (3) No report 1940, 1941

9-30-53

3960
(Replaces B-831)

Vinyl Resins

UCC 089033

Vinyl Resins (Chloracne)

(Spec. Rpt. 10-129; 1947)

QYNA and VINW alike

5% in Olive oil on 2 ears, 27% response in Stage I, under oil in II and III

9-30-53

3955
(Replaces B-1252)

inyl Resins

Vinyl Resin QYNA

Polyvinyl chloride

Toxicity of pyrolysis products (Rpt. 17-100; 1954)

A. Equal hazard to life can be expected from dispersion in an equal volume of air of products of complete pyrolysis of the following weights of resins:-

Fluorothene FTTH	1 gram
" FITS	2 grams
Teflon (polytetrafluoroethylene)	8 grams
Polyvinyl chloride QYNA	128 grams

B. Vapors lethal when inhaled for several hours will result from heating in air a sufficient amount of resin to the following temperature:-

QYNA	265°C.
FTTH, FITS	310°C.
	435°C.

9-15-54

4278

Vinyl Resin QYNA

UCC 089034