

40 C.F.R. § 798.6560

Subchronic delayed neuro-toxicity of organophosphorus substances.

- (a) *Purpose.* In the assessment and evaluation of the toxic characteristics of organophosphorus substances the determination of subchronic delayed neurotoxicity may be carried out, usually after initial information on delayed neurotoxicity has been obtained by acute testing or by the demonstration of inhibition and aging of neurotoxic esterase in hen neural tissue. The subchronic delayed neurotoxicity test provides information on possible health hazards likely to arise from repeated exposures over a limited period of time. It will provide information on dose response and can provide an estimate of a non-effect level which can be of use for establishing safety criteria for exposure.
- (b) *Definitions.* Subchronic delayed neurotoxicity is a prolonged, delayed-onset locomoter ataxia resulting from repeated daily administration of the test substance.
- (c) *Principle of the test method.* Multiple dose levels of the test substance are administered orally to domestic hens (*Gallus gallus domesticus*) for 90 days. The animals are observed at least daily for behavioral abnormalities, locomotor ataxia and paralysis. Histopathological examination of selected neural tissues is undertaken at the termination of the test period.
- (d) *Test procedures*—(1) *Animal selection.* The adult domestic laying hen, aged 8 to 14 months, is recommended. Standard size breeds and strains should be employed.
- (2) Number of animals. Ten hens should be used for each treatment and control group.
- (3) *Control group*—(i) *General.* A concurrent control group should be used. This group should be treated in a manner identical to the treated group, except that administration of the test substance is omitted.

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