

US EPA ARCHIVE DOCUMENT

FORMULATION:			IA	IB	T	FW	EC	R		
% a.i.	SC #	CHEMICAL NAME	Validator:				Date:			
95%		CYTOX 2160 Dodine	Larry Turner				4/15/78			
			Test Type:							
			Avian acute oral LD <sub>50</sub>				50			
			Bobwhite quail							
			Test ID. # ES-C1							

CITATION: Howard, D.J. and C.D. Johnston, 1971. CYTOX 2160-Safety Evaluation by Single Oral Administration to Bobwhite quail. 13 p. Study conducted by Woodard Research Corporation. Submitted by American Cyanamid Co., Acc # 130888, 10/19/71. Referenced for reg. # 1730-UG, 11/28/77.

RESULTS: Bobwhite quail acute oral LD<sub>50</sub> = 690 mg/kg (95% c.i. 511-932 mg/kg). At lowest level of 180 mg/kg, no mortality occurred; 100% mortality occurred at highest level of 3200 mg/kg. The only signs of toxicity were depression and ruffled feathers. Food consumption and weight gain was somewhat reduced, compared to controls, for the first week after dosing, then improved thereafter.

VALIDATION CATEGORY: Core

CATEGORY RATIONALE: Although a finney probit analysis yielded an unacceptable chisquare of 10.02 (4 d.f.), a very close scrutiny of the litchfield-wilcoxon graph that was included showed a chisquare value of 8.04, and when plotted again, this reviewer obtained a value of 7.9, both of which are acceptable.

ABSTRACT: Bobwhite quail were given single oral doses by intubation of CYTOX 2160 of 0(control), 180, 320, 560, 1000, 1800, and 3200 ppm. Procedures followed proposed guidelines except as noted:

1. Age was not specified beyond "young adults".
2. Twenty birds were tested at the four intermediate doses, but only 10 birds were tested at lowest and highest doses.
3. Housing conditions were incompletely reported. Statistical analysis followed Litchfield and Wilcoxon (1949). When checked by Finney probit, a similar LC<sub>50</sub> of 684 mg/kg was obtained, but with a chisquare of 10.02. When rechecked by Litchfield-Wilcoxon, an LC<sub>50</sub> value of 690 mg/kg was obtained with an acceptable chisquare of 7.90 for 4 degrees of freedom.



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Cytox 2160  
 Bobwhite oral LD50  
 Finney probit  
 4/14/78  
 L. Turner

Cytox 2160 Finney probit  
 Mallard oral LD90  
 4/14/78  
 L. Turner

180.  
 1.  
 20.  
 320.  
 1.  
 20.  
 560.  
 1.  
 20.  
 1000.  
 18.  
 20.  
 1800.  
 16.  
 20.  
 3200.  
 10.  
 10.  
 3,488  
 -4,891  
 1,935  
 10,020  
 684,656  
 556,354  
 842,547  
 293,744  
 206,954  
 416,933  
 1595,789  
 1135,584  
 2242,487

M  
 YINT  
 LW M  
 CHI2  
 LD50  
 LDCL  
 UPCL  
 LD10  
 LDCL  
 UPCL  
 LD90  
 LDCL  
 UPCL



560.  
 1.  
 10.  
 1000.  
 2.  
 20.  
 1800.  
 1.  
 20.  
 3200.  
 15.  
 20.  
 5600.  
 17.  
 20.  
 10000.  
 10.  
 2,358  
 -2,797  
 2,655  
 1,085  
 2023,312  
 1536,073  
 2665,103  
 578,695  
 330,009  
 1014,784  
 7074,183  
 4273,466  
 11710,415

M  
 YINT  
 LW M  
 CHI2  
 LD50  
 LDCL  
 UPCL  
 LD10  
 LDCL  
 UPCL  
 LD90  
 LDCL  
 UPCL

