

Avitrol is a bird management chemical registered for use as a flock frightening repellent. It is available at concentrations of 0.56/o, 1.0% as the hydrochloride salt, and 0.3% as free base in a latex coating on grain baits. When ingested by a few birds, it produces reactions and voice that frightens the rest of the flock away. This material gives good control of blackbirds. cowbirds, starlings, crows, sparrows, pigeons, and seagulls. Pigeons can be controlled with little reaction by feeding most of the flock a very low concentration made by diluting the 0.5% material from 15 to 30 times with untreated grain. Pest birds usually readily accept Avitrol grain. In some cases, reacting birds may succumb; in others, reaction may occur, and the bird survive. It is not the purpose of Avitrol to kill the bird exposed, however.

PROPERTIES (Pure Chemical Compound)

Name Melting Point

Odor Color Reaction

Stability

4-Aminopyridine 1580C

None Off-white

Basic Stable to light

Free base darkens slowly in water

Solubility (approx.)

Water

Acetone Acids

Hydrochloride more stable

Hydrochloride 50%, free base 12%

Very soluble Soluble as the salts

Toxicity, Oral LD-50 (mg/kg)

Rats

Dogs Chickens (2 weeks)

Gulls Sparrows Starlings Pigeons Blackbirds

Vapor inhalation of free base for 2 weeks Sub-acute at 1/2 LD-50 per day on chicks Secondary poisoning on cat fed 51 sparrows in 4 days killed with 19 times the lethal dose of 1861

Percutaneous on rabbits

32.5 for hydrochloride, 20 for free base

3.7 for hydrochloride

10 for free base 8 for free base

3.8 for free base 5 for free base 7 for free base 9 for free base

Negative

Died on 40th day Negative

326 for hydrochloride

Toxicity, Sub-acute Oral (90-day Tests)

Rats:

All animals in three graded groups fed 3, 30 and 300 parts per million respectively of 4-aminopyridine in their daily diet survived except for three animals in the highest dose group. None of the surviving rats in all three of the graded feeding groups showed any gross or microscopic tissue changes in the various organs examined. No apparent changes were found in the organs of the three animals in the highest dosage group, which died during the course of the study.

Dogs:

Three groups of Beagle dogs were given 0.1, 1.10 and 3.0 milligrams of 4-Aminopyridine per day per kilogram of body weight, respectively. All animals survived except one dog in the highest dosage group.