



Rozol® Technical Bulletin for control of Mountain Beaver in Forestry Plantations

Use:

Rozol® is a restricted use product registered for use in western Washington and Oregon under a 24(c) "Special Local Needs" label.

Rozol® with active ingredient Chlorophacinone (0.005%) is an anticoagulant rodenticide proven for over 30 years against commensal and field rodents.

Rozol® for the control of mountain beavers is a restricted use product for retail sale to and use only by Certified Applicators or persons under their direct supervision and for those uses covered by the Certified Applicators certificate.

Formulated as a weather-resistant paraffinized pellet, Rozol® holds up to wet conditions before and after snow pack, reducing the chances of tree girdling, stem and root damage, and production losses from mountain beavers on your property.

Chemical Name and Structure of Active Ingredient (a.i.): Chlorophacinone (CPN)

2-((2-(4-chlorophenyl)-1-oxo-2-phenyl) ethyl) -1H-indene-1,3-(2H)-dione

Molecule discovered by Liphatech and patented in 1973.

Chemical Class: indandione anticoagulant

CAS Number: 3691-35-8

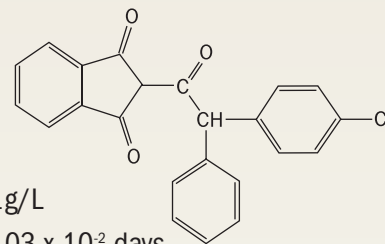
Water Solubility: 0.013 g/L at 20° C (+/- 5)

pH 10 buffer: 0.459g/L, pH 7 buffer: 0.344g/L, pH 4 buffer: 0.001g/L

Environmental Fate (aerobic soil metabolism): Half-life is 23 days with a rate constant of 3.03×10^{-2} days.

In soil, 64% of CPN rapidly degraded to CO₂ within 70 days.

O-phthalic acid is a transitional product of the degradation.



Rozol® for the control of Mountain Beavers

% a.i.: 0.005% or 50 ppm Chlorophacinone

Bulk Density: 78.7 pounds/cubic foot (1.26g/ml)

Type/Appearance: Beige, 3/16" diameter (4.7mm) pellet. Limited dust.

Approximately 2,490 bait pellets per pound of product or 1,860 bait pellets per 12 oz. burrow pack.

Storage Recommendation:

Store in a tightly closed container in a cool, dry place inaccessible to children, pets, livestock and non-target animals.

Shelf Life: Up to 3 years in the original container / packaging.

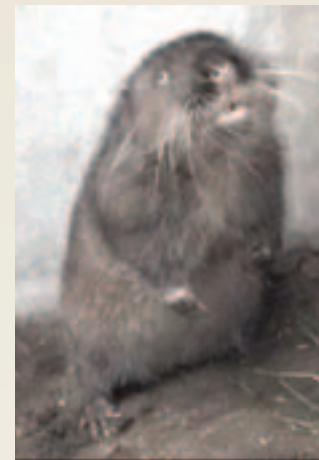
Personal Protection Requirements (see MSDS for complete details)

No special requirements such as gloves or respirators are required when this product is used according to label instructions.



The need for Mountain Beaver control

Mountain Beavers have damaged over 300,000 acres in the Cascade Range, and impact tree seedling survival up to 20 years after planting.



Rozol® Your best solution for controlling Mountain Beavers.

Controls over seven mountain beavers per burrow pack.

Paraffinized pellets ensure long field life.

Packaging: Rozol for the control of Mountain Beavers is packaged in an 18 lb. pail, containing twenty-four, individually-labeled 12 ounce burrow place-packs.

Application does not need to touch the product. Convenient “chew-through” place packs are opened by mountain beaver.

Re-sealable weatherproof pails keep bait dry and minimize accidental exposure.

Eighty (80) pails per pallet.



Mammalian Toxicity

	Rozol (Chlorophacinone)	Diphacinone	Zinc Phosphide
<i>Non-target</i> Lethal Consumption Required for a 22 lb. Dog	22-44 lbs.	6.2 oz - 4.4 lbs.	1/3 of 1 oz.
<i>Non-target</i> LD ₅₀ (22 lb. dog) (mg./kg.)	Lowest 75 (50-100)	Highest 7.5 (0.88 - 15)	High 40
<i>Non-target</i> LD ₅₀ (Pine vole) (mg./kg.)	Most Effective 14.2 (11.4 - 17.6)	Least Effective 57 (34.4 - 94.3)	Less Effective n/a 18.0 for meadow vole
<i>Target</i> LD ₅₀ (Mouse) (mg./kg.)	Most Effective 0.49	Least Effective 240 (141 - 340)	Less Effective 41
<i>Overall</i> EPA Risk Index ¹ (relative, theoretical measure)	Lowest 1.95	High 3.01	Highest 4.63

Avian Toxicity

	Rozol (Chlorophacinone)	Diphacinone	Zinc Phosphide
<i>Non-target</i> Lethal Consumption Required for a 1/4 lb. Bird	1.1 lbs. (18 oz.)	1.7 lbs. (28.2 oz.)	<0.1 oz.
<i>Non-target</i> Number of Pellets Required for a 1/4 lb. Bird	2,580	4,000	0.3
Multiples of a Bird's Body Weight	4 times	7 times	< 1/2,000th
<i>Non-target</i> LD ₅₀ (Ringneck Pheasant) (mg. a. i. per kg of body weight*)	Lowest >100	n/a	Highest 26.7
<i>Non-target</i> LD ₅₀ (N. Bobwhite Quail) (*mg./kg.)	Low 258 (167-356)	Lowest 1,200 (400-2,000)	Highest 1.9 (12.0-13.9)

Source: EPA Potential Risks of Rodenticides to Non-Target Birds & Mammals (W. Erickson & E. Urban) EPA Office of Prevention, Pesticides & Toxic Substances, July 2004, Tables 9 & 10, pp. 24-27.

IBID, EPA, July 2004, Tables 28 & 31, pp. 59 & 67.

¹ Table 48, p. 101 and Graph 5, p. 102 Combined, weighted primary & secondary risks to birds & mammals.

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ADVANCED RODENT CONTROL TECHNOLOGY

For more information, call (888) 331-7900
or visit our Web site at www.rodent-control.com.