

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep away from humans, domestic animals and pets. Harmful if swallowed, absorbed through the skin, inhaled, or in eyes. Do not breathe dust. Avoid contamination of feed or foodstuffs. Avoid contact with acids. Wash all utensils, spoons, or measuring devices thoroughly after using.

Personal Protective Equipment (PPE)

All handlers, including anyone who applies bait and retrieves carcasses and unused bait, must wear waterproof gloves.

Follow manufacturer's instructions for cleaning/maintaining PPE, such as gloves. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

This product is toxic to wildlife and fish. Birds and other wildlife feeding on treated bait may be killed. Do not apply where runoff is likely to occur. Do not apply this product directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark.

ENDANGERED SPECIES CONSIDERATIONS

Whooping Crane (*Grus americana*). Do not use this product during the period 30 days prior to arrival and 30 days after the whooping crane leaves known crane habitat.

Pygmy rabbit (*Brachylagus idahoensis*). Do not use this product within one mile of alfalfa fields.

Do not use this product within 7 km (4.34 miles) of any prairie dog town to limit risks to the black-footed ferret (*Mustelaginripes*) from exposure to Zinc Phosphide or destruction of its prey base, unless the colony is: a.) an isolated black-tailed prairie dog town less than 80 acres in size; b.) an isolated white-tailed or Gunnison prairie dog town less than 200 acres in size; c.) has been appropriately surveyed, using methods acceptable to the U.S. Fish and Wildlife Service, and found by the FWS not to be a suitable site for ferret reintroductions; or, d.) has been exempt by the FWS from the survey requirement.

UTAH: Utah Prairie Dog (*Cynomys parvidens*). Do not use this product in the range of the Utah Prairie Dog.

CALIFORNIA: Salt marsh harvest mouse (*Reithrodontomys raviventris*). Do not use this product within 1/2 mile of salt marsh vegetation and/or brackish water wetlands which are located near or adjacent to San Pablo Bay and San Francisco Bay. Do not use this product within 1/2 mile of salt marsh vegetation and/or brackish water wetlands which are located in the Sacramento River below or adjacent to the confluence of the Sacramento River and the San Joaquin River.

Morro Bay Kangaroo Rats (*Dipodomys heermanni*). Do not use this product within 2 1/2 miles of Bay Wood Park which is located on Morro Bay.

Fresno Kangaroo Rat (*Dipodomys nitratoides exilis*). Follow the Interim Measures for Protecting Endangered Species in the California Endangered Species Bulletin for the following California counties: Fresno, Kings, Madera and Merced.

Stephan's Kangaroo Rat (*Dipodomys stephensi*). Follow the Interim Measures for Protecting Endangered Species in the California Endangered Species Bulletin for the following California counties: San Bernardino, San Diego and Riverside.

Aleutian Canada Goose (*Branta canadensis leucopareia*). Do not use this product from October to March in the Federally closed goose hunting areas in the State of California. See current Duck and Goose Hunting game laws for a current map.

Giant Kangaroo Rat (*Dipodomys ingens*). Follow the Interim Measures for Protecting Endangered Species in the California Endangered Species Bulletin for the following California counties: Fresno, Kern, Kings, Merced, Monterey, San Benito, San Luis Obispo, Santa Barbara and Tulare.

Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*). Follow the Interim Measures for Protecting Endangered Species in the California Endangered Species Bulletin for the following California counties: Kern, Kings and Tulare.

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*). Follow the Interim Measures for Protecting Endangered Species in the California Endangered Species Bulletin in the following California counties: San Bernardino and Riverside.

TEXAS: Attwater's greater prairie chicken (*Tympanuchus cupido attwateri*). Do not use this product in the present occupied range of the Attwater's prairie chicken in the following Texas counties: Arkansas, Austin, Brazoria, Colorado, DeWitt, Fort Bend, Galveston, Goliad, Harris, Refugio, Victoria, Waller and Wharton.

PUERTO RICO: Yellow-shouldered Black Bird (*Agelaius xanthomus*) and Puerto Rican Plain Pigeon (*Columba inornata weimerei*). This product must not be used in the following areas except in tamper proof bait boxes: within 10 kilometers of Central Aquirre, Lago Cidra, Ceiba, San German; 15 kilometers of La Esperanza, south of Highway 2 from city of Mayaguez to the city of Ponce and all Mona Island.

NOTICE: It is a federal offense to use any pesticide in a manner that results in the death of a member of an endangered species. The use of this product may pose a hazard to Federally designated endangered/threatened species. Suggested measures to protect endangered species in your county may exist in an EPA "Interim Measures" pamphlet. You may call EPA's Endangered Species Hotline, 1-800-447-3813, to find out if an "Interim Measures" pamphlet exists for your county and have one sent to you. You can also consult your local county extension office or pesticide state lead agency to determine whether they have imposed any requirements in your area to protect endangered and threatened species.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ THIS LABEL: Read this entire label and follow all use directions and use precautions. Do not apply to any site, against any pest, or by any method of application not stated on this label.

Use Restrictions (for all use patterns): Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Keep all other persons out of the treated area during this application.

LIMITATIONS

The following Limitations apply to all agricultural areas and use sites listed on this label: This product must not be applied on roads, near residential areas, or over water. Do not broadcast over growing crops other than alfalfa, barley, beans (dry), potatoes, sugar beets, sugarcane and wheat. Apply product on warm clear days. Do not graze animals in treated areas.

NONCROP RIGHTS-OF-WAY

USE RESTRICTIONS: For control of California Ground Squirrels (*Spermophilus beecheyi*) on noncrop rights-of-way adjacent to canal and ditch banks and other noncrop borders during late spring and early summer. This product must not be applied on roads, near residential areas, over water or where plants are grown for food or feed.

PREBAITING: Prebaiting with 6 lbs. of untreated steamed crimped oats per acre one or two days prior to using ZP RODENT OAT BAIT AG is likely to enhance bait acceptance by California ground squirrels.

BAITING: Treat only once during treatment period. Broadcast bait in a 10-15 foot swath along right-of-way, using hand or ground-driven dispensing devices not to exceed 6 lbs. per acre. Bait may be applied only to the canal right-of-way between the base of the levee and adjacent properties. The canal and levee may not be treated. Dispose of excess bait from application equipment by burial.

RANGELAND AND ADJACENT NONCROP AREAS

PRAIRIE DOGS

USE RESTRICTIONS: For control of black-tailed prairie dogs (*Cynomys ludovicianus*), white-tailed prairie dogs (*C. leucurus*) and Gunnison (Zuni) prairie dogs (*C. gunnisoni*) on rangeland in the western United States (North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, New Mexico, Arizona, Colorado, Montana, Idaho, Utah and Wyoming).

PREBAITING: Prebait with 4 grams (one teaspoon) of untreated steamed crimped oats per mound, one or two days prior to baiting, to increase acceptance of treated baits by prairie dogs.

BAITING: Apply bait only after all or most of prebait is eaten and only to areas where untreated bait was consumed. Establish observation period during prebaiting. Apply bait by hand as a six-inch bait spot on edge of each mound or in adjacent feeding areas. Application rate should not exceed

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4 grams (one teaspoon) per bait spot. Treat during mid-summer through mid-winter period (July-January). Do not apply more than one bait application during this period. Dispose of spilled or unwanted bait by burial.

KANGAROO RATS

USE RESTRICTIONS: For control of the Ord's kangaroo rats (*Dipodomys ordii*), banner-tailed kangaroo rats (*D. spectabilis*), and Merriam's kangaroo rats (*D. merriami*) in rangeland vegetation and noncrop areas. Do not apply this product within the occupied habitats of threatened or endangered species or subspecies of kangaroo rats.

HAND BAITING: Place one tablespoon (12 grams) of bait at 2 locations in feeding runs near the entrances to kangaroo rat burrows.

MACADAMIA NUT ORCHARDS AND ADJACENT NONCROP AREAS

USE RESTRICTIONS: For control of roof rats (*Rattus rattus*) in macadamia nut orchards and adjacent noncrop areas.

SPOT TREATMENT: Bait may be placed in bait stations on the ground or in stations in trees. Place 1-2 teaspoons (4-8 grams) of bait in bait stations at the base of each tree and in each station in trees. Uneaten bait must be removed from trees prior to shaker harvest or from ground prior to mechanized harvest. Orchards may be treated up to 30 days prior to a harvesting round.

BURROW TREATMENT: Place 1-2 teaspoons (4-8 grams) of bait in each burrow. No preharvest interval is required, provided nuts are not retrieved from burrows.

BROADCAST BAITING: Broadcast at the rate of five (5) pounds of bait per acre in orchard using a ground device or by hand. Aircraft may be used to treat adjacent noncrop areas if recommended and supervised by the Hawaii Dept. of Health. The number of applications shall not exceed four (4) per year. The total amount of bait applied shall not exceed 20 pounds per acre per year.

ORCHARDS AND GROVES

VOLES AND WHITE-FOOTED MICE

USE RESTRICTIONS: For control of meadow voles, prairie voles, pine voles, California voles, long-tailed voles, Oregon voles, mountain voles, Townsend's voles (*Microtus spp.*) and white-footed mice in orchards and groves. Apply bait after harvest while the orchard or grove is in a nonbearing phase.

HAND BAITING: Near the base of each infested tree, place teaspoonful quantities of bait at 2-4 locations, either on surface trails or at the mouth of holes leading to underground burrow systems. Cover bait artificially (e.g., mats, boards) or by pulling overhanging grass back into place. Do not allow bait to be exposed on bare ground. Do not disturb the runway system. Bait at the rate of 2-3 lbs. per acre of infested trees.

TRAILBUILDER: Set equipment to drop one teaspoon quantity (4 grams) of bait at 4-5 foot intervals in the artificial trail, made by the machine, just inside the drop line on both sides of the trees. Apply bait at the rate of 2-3 pounds per acre of infested trees.

BROADCAST BAITING: Under infested trees broadcast bait evenly by cyclone seeder or by hand. **Wear rubber gloves during hand-broadcast operations.** Concentrate baiting in the areas with the heaviest vegetative cover. Do not broadcast on bare ground or growing crops. Apply bait at rates from 6-10 lbs. per treated acre.

AERIAL APPLICATION: Broadcast bait at a rate of 6-10 lbs. per acre. Do not apply on bare ground or growing crops.

GROUND SQUIRRELS

USE RESTRICTIONS: For control of California Ground Squirrels (*Spermophilus beecheyi*) and Richardson's Ground Squirrels (*Spermophilus richardi*) in orchards and groves. Apply bait after harvest while the orchard and grove is in a nonbearing phase.

PREBAITING: Prebaiting with 6 lbs. of untreated steamed crimped oats per acre one or two days prior to using ZP RODENT OAT BAIT AG is likely to enhance bait acceptance by California and Richardson's ground squirrels.

HANDBAITING: Apply one teaspoon (4 grams) of bait on the ground near active burrows.

BAITING: Treat only once during treatment period. Broadcast bait using hand or ground-driven dispensing devices not to exceed 6 lbs. per acre. **Wear rubber gloves during hand-broadcast operations.** Dispose of excess bait from application equipment by burial.

POCKET GOPHERS

USE RESTRICTIONS: For control of plains pocket gophers (*Geomys bursarius*), southeastern pocket gophers (*G. pinetis*), yellow-faced pocket gophers (*Pappogeomys castanops*) and pocket gophers (*Thomomys spp.*) in orchards and groves. Bait must be applied directly into pocket gopher's underground burrow systems or into underground tunnels created by burrow-builder machines. Do not apply bait above ground.

HAND BAITING: Follow the directions indicated below to locate and treat pocket gophers' burrow systems.

Locating Underground Runways: Use a specially designed gopher probe, a metal rod, a strong smooth stick, or other suitable implement to probe the ground 10 to 15 inches away from fan-shaped gopher mounds. Begin probing on the flat side of the fan. When the main runway has been entered, the probe will drop about 2 inches due to decreased resistance from soil.

Applying Bait to Runways: Using a long-handled spoon or mechanical probe, drop one teaspoon (4 grams) of bait into the main runway at each baited point. Cover the opening with sod, a rock, or soil to exclude light. Take care not to cover bait with soil. Depending upon mound density, make two to five bait placements per burrow system. Recover and bury all spilled bait. Applied in this manner, one pound of bait will treat one to eight acres, depending upon the number of pocket gopher burrow systems present.

BURROW BUILDER: Follow manufacturer's instructions for the type of equipment used. Calibrate equipment to drop a teaspoon quantity (4 grams) of bait at 4-5 foot intervals in the artificial burrow made by the machine. Apply at a rate of 2-3 lbs. of bait per acre. Pick up and bury all spilled bait.

SUGARCANE

USE RESTRICTIONS: For control of Polynesian rats (*Rattus exulans*), Norway rats (*R. norvegicus*), roof (*R. rattus*), rice rats (*Oryzomys palustris*), Florida water rats (*Neotiber allenii*), and cotton rats (*Sigmodon hispidus*) in sugarcane fields.

PREBAITING: Prebaiting with three pounds of untreated steamed crimped oats per acre one or two weeks prior to using ZP RODENT OAT BAIT AG may enhance bait acceptance by rats.

BAITING: Broadcast bait by aircraft, ground-driven devices, or by hand at the rate of 5 lbs. of bait per acre. **Wear rubber gloves during hand-broadcast operations.** The number of applications shall not exceed 4 per crop. The total application shall not exceed 20 lbs. per acre. Do not apply within 30 days of harvest.

NURSERY STOCK, CONIFER/CHRISTMAS TREE, POPLAR/COTTONWOOD, ORNAMENTAL AND NON-BEARING FRUIT TREE PLANTATIONS

USE RESTRICTIONS: For control of meadow voles, prairie voles, pine voles, California voles, Oregon voles, mountain voles, and Townsend's voles (*Microtus spp.*) in nursery stock, and conifer/Christmas tree, poplar/cottonwood, ornamental, and non-bearing fruit tree plantations. Do not apply by air.

BROADCAST BAITING: Under infested nursery stock, conifer/Christmas trees, poplar/cottonwood trees, ornamental trees, or non-bearing fruit trees, broadcast bait evenly by cyclone seeder or by hand. **Wear rubber gloves during hand-broadcast operations.** Concentrate in areas with the heaviest vegetative cover. Do not broadcast on bare ground. Apply at a rate of 6-10 lbs. per acre.

HAND BAITING: Near the base of infested nursery stock, conifer/Christmas trees, poplar/cottonwood trees, ornamental trees, or non-bearing fruit trees, place teaspoonful quantities (4 grams) of bait at 2-4 locations, either on surface trails or at the mouth of holes leading to underground burrow systems. Do not allow bait to be exposed on bare ground. Do not disturb the runway system. Bait at a rate of 2-3 lbs. per acre of infested stock.

GRAPE VINEYARDS

USE RESTRICTIONS: For control of deer mice (*Peromyscus maniculatus*), white-footed mice (*P. leucopus*), oldfield mice (*P. polionotus*, except for threatened or endangered subspecies), meadow voles, prairie voles and pine voles (*Microtus spp.*), and meadow jumping mice (*Zapus hudsonius*) in grape vineyards. Do not use this product in areas of Alabama and Florida that are occupied by threatened or endangered subspecies of the oldfield mouse.

BROADCAST BAITING: Broadcast bait evenly on the ground between the rows by cyclone seeder or by hand. **Wear rubber gloves during hand-broadcast operations.** Apply bait at a rate of 6-10 lbs. per acre. Do not apply by air.

**RESTRICTED USE PESTICIDE
DUE TO HAZARDS TO NONTARGET SPECIES**

For retail sale and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

ZP RODENT OAT BAIT AG™

OAT GRAIN BAIT FORMULATION

FOR CONTROL OF GROUND SQUIRRELS, PRAIRIE DOGS, RATS, VOLES, MICE, MEADOW MICE, DEER MICE, KANGAROO RATS, AND GOPHERS.

ACTIVE INGREDIENT:

Zinc Phosphide: (CAS# 1314-84-7): 2%

INERT INGREDIENTS: 98%
TOTAL 100%

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID

Have label with you when seeking treatment advice, including 1-877-854-2494.

Any persons applying zinc phosphide products and experiencing signs and symptoms such as nausea, abdominal pain, tightness in the chest, or weakness, should be seen by a physician immediately.

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice or transport patient to the nearest hospital.
- Do not drink water.
- Do not administer anything by mouth or induce vomiting unless told to do so by the poison control center or doctor.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor immediately for treatment advice.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call an ambulance, then give artificial respiration, preferably mouth to mouth, if possible.
- Call a poison control center or doctor immediately for treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor immediately for treatment advice.

See side panels for additional precautionary statements.

NET WEIGHT: 45 lbs (20.4 kg)

EPA REG. NO.: 12455-102

EPA EST. NO.: 12455-WI-1

Manufactured by:



SQUIRREL OATS

CROPLAND, RANGELAND, AND NONCROP AREAS

USE RESTRICTIONS: For control of plains pocket gophers (*Geomys bursarius*), southeastern pocket gophers (*G. pinetis*), yellow-faced pocket gophers (*Pappogeomys castanops*) and pocket gophers (*Thomomys spp.*) in cropland (including alfalfa), rangeland, reforestation areas, Christmas trees, conifer/poplar/cottonwood plantations and noncrop areas (including lawns, golf courses and parks). Bait must be applied directly into pocket gopher's underground burrow systems or into underground tunnels created by burrow-builder machines. Do not apply bait above ground or directly to crops grown for food or feed. Do not apply by use of burrow-builders in lawns, golf courses, or municipal parks.

HAND BAITING: Follow the directions indicated below to locate and treat pocket gophers' burrow systems.

Locating Underground Runways: Use a specially designed gopher probe, a metal rod, a strong smooth stick, or other suitable implement to probe the ground 10 to 15 inches away from fan-shaped gopher mounds. Begin probing on the flat side of the fan. When the main runway has been entered, the probe will drop about 2 inches due to decreased resistance from soil.

Applying Bait to Runways: Using a long-handled spoon or mechanical probe, drop one teaspoon (4 grams) of bait into the main runway at each baited point. Cover the opening with sod, a rock, or soil to exclude light. Take care not to cover bait with soil. Depending upon mound density, make two to five bait placements per burrow system. Recover and bury all spilled bait. Applied in this manner, one pound of bait will treat one to eight acres, depending upon the number of pocket gopher burrow systems present.

BURROW BUILDER: Follow manufacturer's instructions for the type of equipment used. Calibrate equipment to drop a teaspoon quantity (4 grams) of bait at 4-5 foot intervals in the artificial burrow made by the machine. Apply at a rate of 2-3 lbs. of bait per acre. Pick up and bury all spilled bait.

ALFALFA

USE RESTRICTIONS: For control of meadow voles, long-tailed voles, California voles, Oregon voles, mountain voles and Townsend's voles (*Microtus spp.*) and Richardson's ground squirrels (*Spermophilus richardsonii*) in alfalfa. All applications must occur shortly after a cutting of the hay, and/or prior to the next growth's attaining a length of 2 inches. Alfalfa forage from treated areas must not be harvested until it reaches maturity. This use is restricted to Montana, California, Idaho, Oregon, and the state of Washington.

PREBAITING: When bait is to be used to control Richardson's ground squirrels, prebaiting with untreated steamed crimped oats at a rate of 6 lbs. per acre 2-3 days before ZP RODENT OAT BAIT AG is applied is likely to enhance acceptance of the toxic bait.

BROADCAST BAITING: This product may be broadcast by air or ground-driven dispensing devices. Apply at a rate of up to 10 lbs. (0.2 lb. active ingredient) per acre. Make only one application per year if Richardson's ground squirrels are being targeted. If voles are being targeted, a second bait application may be made after 10 days. A maximum of 20 lbs. (0.4 lb. active ingredient) per acre may be applied per year. Do not apply by air when wind velocity exceeds 10 mph. Do not apply in piles or permit piles to be formed by equipment.

TIMOTHY AND TIMOTHY/ALFALFA MIXTURES PRODUCED FOR HAY

USE RESTRICTIONS: For control of meadow voles, long-tailed voles, California voles, Oregon voles, mountain voles, and Townsend's voles (*Microtus spp.*) in timothy and timothy/alfalfa mixtures. Do not apply by air. Do not apply to actively growing timothy or timothy/alfalfa mixtures. This use is restricted to California, Idaho, Oregon and the state of Washington. Do not apply to timothy or timothy/alfalfa mixtures within 60 days of harvest.

BROADCAST BAITING: Broadcast bait using by hand, cyclone seeder, or ground-driven dispensing devices. **Wear rubber gloves during hand-broadcast operations.** A maximum of 2 applications by ground may be made at the rate of 5 to 10 lbs. per acre, one in the fall after the last cutting and one in the spring when timothy and timothy-legume mixtures are still dormant. Do not apply in piles or permit piles to be formed by equipment.

TIMOTHY PRODUCED FOR SEED

USE RESTRICTIONS: For control of meadow voles, long-tailed voles, California voles, Oregon voles, mountain voles, and Townsend's voles (*Microtus spp.*) in timothy during the non-growing season. Do not apply by air. Do not apply to actively growing timothy or timothy/alfalfa or timothy/clover mixtures. A minimum of 158 days must pass between an application of ZP RODENT OAT BAIT AG and any livestock foraging activity. This use is restricted to Idaho, Oregon and the state of Washington.

BROADCAST BAITING: This product may be broadcast by hand, cyclone seeder, or ground-driven dispensing devices at rates of up to 10 lbs. (0.2 lb. active ingredient) per acre during crop dormancy. **Wear rubber gloves during hand-broadcast operations.** A maximum of 20 lbs. (0.4 lb. active ingredient) per acre may be applied annually.

BARLEY

USE RESTRICTIONS: For control of meadow voles, long-tailed voles, California voles, Oregon voles, mountain voles, Townsend's voles (*Microtus spp.*) and Richardson's ground squirrels (*Spermophilus richardsonii*) in growing-season and preplant applications in barley. Do not apply this product to barley within 50 days of harvest. This use is restricted to Montana, Idaho, Oregon and the state of Washington.

PREBAITING: When bait is used to control Richardson's ground squirrels, prebaiting with untreated steamed crimped oats at a rate of 6 lbs. per acre 2-3 days before ZP RODENT OAT BAIT AG is applied is likely to enhance acceptance of the toxic bait.

BROADCAST BAITING: This product may be broadcast by air or ground-driven dispensing devices. Apply bait at a rate up to 6 lbs. (0.12 lb. active ingredient) per acre. Make only one application per year if Richardson's ground squirrels are being targeted. If voles are being targeted, a second bait application may be made after a minimum interval of 25 days. A maximum of 12 lbs. (0.24 lb. active ingredient) per acre may be applied per year. All applications must be made prior to the boot stage.

POTATOES

USE RESTRICTIONS: For control of meadow voles, long-tailed voles, California voles, Oregon voles, mountain voles, and Townsend's voles (*Microtus spp.*) in growing-season and pre-plant applications in potatoes. Do not apply this product to potatoes within 30 days of harvest. This use is restricted to Idaho, Oregon and the state of Washington.

BROADCAST BAITING: This product may be broadcast by air or ground-driven dispensing devices. Apply bait once at a rate up to 10 lbs. (0.2 lb. active ingredient) per acre, or make two separate applications at rates of up to 5 lbs. (0.1 lb. active ingredient) per acre. The maximum application rate per year is 10 lbs. (0.2 lb. active ingredient).

SUGAR BEETS

USE RESTRICTIONS: For control of meadow voles, long-tailed voles, California voles, Oregon voles, mountain voles and Townsend's voles (*Microtus spp.*) in growing-season and preplant applications in sugar beets. Do not apply this product to sugar beets within 30 days of harvest. This use is restricted to Idaho, Oregon and the state of Washington.

BROADCAST BAITING: This product may be broadcast by air or ground-driven dispensing devices. Apply bait at rates up to 10 lbs. (0.2 lbs. active ingredient) per acre at planting. A second application may be made at the same rate. The maximum application rate per year is 20 lbs. (0.4 lb. active ingredient).

WHEAT

USE RESTRICTIONS: For control of meadow voles, long-tailed voles, California voles, Oregon voles, mountain voles, Townsend's voles (*Microtus spp.*) and Richardson's ground squirrels (*Spermophilus richardsonii*) in growing-season and preplant applications in wheat. Do not apply this product to wheat within 50 days of harvest. This use is restricted to Montana, Idaho, Oregon and the state of Washington.

PREBAITING: When bait is used to control Richardson's ground squirrels, prebaiting with untreated steamed crimped oats at a rate of 6 lbs. per acre 2-3 days before ZP RODENT OAT BAIT AG is applied is likely to enhance acceptance of the toxic bait.

BROADCAST BAITING: This product may be broadcast by air or ground-driven dispensing devices. Apply bait at a rate of up to 6 lbs. (0.12 lb. active ingredient) per acre. Make only one application per year if Richardson's ground squirrels are being targeted. If voles are being targeted, a second application may be made within 25 days. The maximum application rate per year is 12 lbs. (0.24 lb. active ingredient) per acre.

BEANS (DRY)

USE RESTRICTIONS: For control of prairie voles (*Microtus ochrogaster*), meadow voles (*M. pennsylvanicus*), house mice (*Mus musculus*), deer mice (*Peromyscus maniculatus*), white-footed

mice (*P. leucopus*), and Ord's kangaroo rats (*Dipodomys ordii*), in dry beans during the growing season. Do not apply by air. Do not apply this product to dry beans within 30 days of harvest. This use is restricted to Idaho, Oregon and the state of Washington.

BROADCAST BAITING: This product may be broadcast by hand or ground-driven dispensing devices at a rate of 6 lbs. (0.12 lb. active) per acre. **Wear rubber gloves during hand-broadcast operations.** No more than one application per growing season is permitted.

BUSHBERRIES AND CANEBERRIES

USE RESTRICTIONS: For control of meadow voles, prairie voles, and pine voles (*Microtus spp.*) in bushberries (highbush and lowbush blueberries, currants, elderberries, gooseberries and huckleberries) and in caneberreries (blackberries, red raspberries, black raspberries, loganberries, and cultivars or hybrids of these caneberreries). Only apply this product in the dormant season: after final harvest and not later than the beginning of leaf emergence in the spring. Do not apply when ground is snow covered. Do not apply by air. Minimum preharvest interval is 70 days.

BROADCAST BAITING: This product may be broadcast by cyclone seeder, or by hand. **Wear rubber gloves during hand-broadcast operations.** When applying by hand, throw tablespoon amounts (12 grams) into heavy cover along bushes, rock outcrops, and fence lines. Make up to 2 applications at a minimum interval of 21 days, at the rate of 6 to 10 lbs. per acre per application.

CUCURBITS, REDUCED TILLAGE AND NO-TILL CORN

USE RESTRICTIONS: For control of prairie voles (*Microtus ochrogaster*), meadow voles (*M. pennsylvanicus*), house mice (*Mus musculus*), deer mice (*Peromyscus maniculatus*) white-footed mice (*P. leucopus*), thirteen-lined ground squirrels (*Spermophilus tridecemlineatus*), Ord's kangaroo rats (*Dipodomys ordii*), banner-tailed kangaroo rats (*D. spectabilis*), Merriam's kangaroo rats (*D. merriami*), and cotton rats (*Sigmodon hispidus*) in reduced tillage and no-till corn and in cucurbits, including and limited to chayote, Chinese waxgourd, citron melon, cucumber, gherkin, edible gourd, *Momordica spp.*, muskmelon, pumpkin, squash [summer and winter], and watermelon. Only in-furrow treatments are permitted for these crops. Do not broadcast bait. Do not apply this product within the occupied habitats of the endangered species or subspecies of kangaroo rats.

IN-FURROW APPLICATION ONLY: Equipment designed for in-furrow treatments must be used to apply this product in cucurbits, reduced tillage and no-till corn. Make one application pre-planting, or at-planting, at a rate of 4 to 6 lbs. of bait per acre. Collect and remove excessive quantities of bait deposited on surface soil or crop residues during spills or equipment malfunctions.

CALIBRATION/ROW

Row spaces inches	4 lbs. / A Rate oz. Per 1000 ft	5 lbs. / A rate oz. Per 1000 ft	6 lbs. / A rate oz. Per 1000 ft
20	2.5	3.1	3.7
30	3.7	4.6	5.5
36	4.4	5.5	6.6
38	4.7	5.8	6.9

LAWNS, ORNAMENTALS, GOLF COURSES, PARKS AND NURSERIES

USE RESTRICTIONS: For control of meadow voles, prairie voles, pine voles, California voles, long-tailed voles, Oregon voles, mountain voles and Townsend's voles (*Microtus spp.*), Columbian ground squirrels (*Spermophilus columbianus*), Richardson's ground squirrels (*S. richardsonii*), thirteen-lined ground squirrels (*S. tridecemlineatus*), and California ground squirrels (*S. beecheyi*) in lawns, ornamentals, golf courses, parks, and nurseries. Bait must not be applied on roads, over water or where plants are grown for food or feed.

PREBAITING: Prebait by placing one teaspoon (4 grams) of untreated steamed crimped oats around each active burrow opening or in each active runway 2 or 3 days prior to using ZP RODENT OAT BAIT AG to enhance acceptance by ground squirrels or voles.

HAND BAITING: Place 4 grams (one teaspoon) of bait around each active burrow opening or in each active runway. Allow bait to fall through to the ground surface but do not apply bait to bare ground. Do not place bait in heaps or piles.

AROUND AGRICULTURAL AND INDUSTRIAL STRUCTURES

USE RESTRICTIONS: This product may be used to control meadow voles (*Microtus pennsylvanicus*), prairie voles (*M. ochrogaster*), California voles (*M. californicus*), mountain voles (*M. montanus*), and pine voles (*M. pinetis*) around (within 15 feet of) agricultural, commercial and industrial buildings. Do not apply bait inside of structures.

Bait must be placed in tamper-resistant bait stations. These stations must be resistant to destruction by dogs and by children under 6 years of age and must be used in a manner that prevents such children from reaching into bait compartments and obtaining bait. If bait can be shaken from stations when they are lifted, units must be secured or otherwise immobilized. Even stronger bait stations are needed in areas open to hooved livestock, raccoons, bears or other potentially destructive animals, or in areas prone to vandalism.

SELECTION OF TREATMENT AREAS: Determine where voles will most likely find and consume the bait. Look for runways near buildings as well as signs of vole activity oriented toward the structures.

PREBAITING: Prebaiting with untreated steamed crimped oats may improve acceptance of this product and encourage voles to enter bait stations. Apply a teaspoon amount (4 grams) of prebait to each bait station at least 2 days before the scheduled application of ZP RODENT OAT BAIT AG. Check bait stations for evidence of prebait consumption. Delay use of treated bait until more than half of the prebait offered has been consumed. Remove remaining prebait from bait stations before loading them with toxic bait.

BAITING: Apply a teaspoon (4 grams) of bait in each bait station. Space bait stations at intervals of 8-12 feet in infested areas. Maintain bait in stations for 3 days. Extend the baiting period only if there is continued evidence of feeding from the stations by voles.

AIRPORTS

USE RESTRICTIONS: This product may be used at airports to control meadow voles (*Microtus pennsylvanicus*), prairie voles (*M. ochrogaster*), California voles (*M. californicus*), mountain voles (*M. montanus*), pine voles (*M. pinetis*), and white-footed mice (*Peromyscus leucopus*). Do not apply bait to bare ground. Do not apply bait by air.

PREBAITING: Prebaiting with untreated steamed crimped oats may improve acceptance of this product. Apply prebait at the same rate and using the same procedures that are to be used for applying the toxic bait. Apply prebait 2 or 3 days before the scheduled application of ZP RODENT OAT BAIT AG.

HAND BAITING: Place a teaspoon (4 grams) of bait in surface runways or at the mouths of holes leading to underground burrow systems.

GROUND-BROADCAST BAITING: Broadcast bait evenly by hand, by cyclone seeder, or by mechanical spreader mounted on a tractor or 4-wheel drive all-terrain vehicle (ATV). **Wear rubber gloves during hand-broadcast operations.** Apply treated bait at rates from 6 to 10 lbs. per acre. Do not broadcast bait on any area at an airport more than once per year.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

STORAGE: Store only in original container in a cool, dry, well ventilated place inaccessible to children, pets and wildlife. Protect from direct contact with water or excessive moisture. Once opened, do not store bag for prolonged period.

Spills: If container is punctured, repair with tape and use clear overslip bag and securely close.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of empty container by placing in trash, at an approved waste disposal facility or by incineration.

WARRANTY: To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

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ZP[®] RODENT OAT BAIT AG

SAFETY DATA SHEET

ACCORDING TO REGULATION:
GHS/WHMIS 2015

DATE OF ISSUE:
October 2017

PREPARED BY:
CAR

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: ZP[®] RODENT OAT BAIT AG
PMRA Registration Number: 29030
Relevant identified uses: Acute Rodenticide
Uses advised against: Use only for the purpose described above

MANUFACTURER/SUPPLIER:

Bell Laboratories, Inc.
3699 Kinsman Blvd.
Madison, WI 53704, USA
Email: sds@belllabs.com
Phone: 608-241-0202
Medical or Vet Emergency: 877-854-2494 or 952-852-4636
Spill or Transportation Emergency: 800-424-9300 (CHEMTREC)

SECTION 2. HAZARDS IDENTIFICATION

WHMIS Classification: Not classified

Signal Word PMRA: Warning/Poison

Precautionary Statements: KEEP OUT OF REACH OF CHILDREN, PETS AND LIVESTOCK. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wash skin thoroughly with soap and water after handling. Wash contaminated clothing, separately from other laundry, with soap and water before reuse. Users should remove clothing immediately if pesticide gets inside, then wash skin thoroughly and put on clean clothing. Chemical-resistant gloves must be worn when disposing of dead rodents, unconsumed bait and empty containers. All handlers, including loaders and applicators, must wear a long-sleeved shirt, long pants, shoes plus socks, and chemical-resistant gloves. In addition, persons loading pellets or bait into mechanical ground equipment or loading/applying with hand pushed or handheld equipment, must wear a NIOSH-approved particulate-filter respirator and protective eyewear. May be fatal if swallowed. Avoid contact with skin. Do not breathe dust or fumes. Do not contaminate feed and foodstuffs. Keep children, pets and domestic animals away, especially from bait areas.



See Section 15 for information on PMRA applicable safety, health, and environmental classifications.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	% By weight
Zinc Phosphide	1314-84-7	2.0%
Inert and Non-Hazardous Ingredients (Unlisted components are non-hazardous)	Proprietary	98.0%

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Ingestion: Call physician or emergency number immediately. If swallowed, induce vomiting by touching back of throat with finger. Do not give anything by mouth if victim is unconscious or not alert.

Inhalation: Not applicable.

Eye contact: If in eyes, hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Skin contact: If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control centre or doctor for treatment advice.

Most important symptoms and effects, both acute and delayed

Ingestion of excessive quantities may cause nausea, abdominal pain, tightness in the chest, eye irritation, or weakness.

Advice to physician: There is no specific antidote. Probable mucosal damage may contradict the use of gastric lavage. Sodium bicarbonate can be given orally to neutralize the stomach acidity. The stomach and intestinal tract can be evacuated, oxygen administered and cardiac and circulatory stimulants given.

Advice to Veterinarian: For animals ingesting bait and/or showing poisoning signs, induce vomiting by using hydrogen peroxide. Sodium bicarbonate can be given orally to neutralize the stomach acidity. The stomach and intestinal tract can be evacuated, oxygen administered and cardiac and circulatory stimulants given.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media: Dry chemical, soda ash, sand, or inert gas.

Unsuitable Extinguishing Media: Avoid water or foam as they may form phosphine gas upon contact with zinc phosphide.

Special hazards arising from the mixture: High temperature decomposition or burning in air can result in the formation of toxic or flammable gases, which may include flammable phosphine gas, oxides of phosphorus, and zinc.

Advice for firefighters: Wear protective clothing and self-contained breathing apparatus. Fight fire upwind and evacuate downwind as appropriate.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Gloves, long sleeve shirt, long pants, shoes, and socks should be worn when handling the bait. Collect spillage without creating dust.

Environmental precautions: Do not allow bait to enter drains or water courses. Where there is contamination of streams, rivers or lakes contact the appropriate environment agency.

Methods and materials for containment and cleaning up

For Containment: Carefully sweep up spilled material immediately. Avoid contact with dust. Place in properly labeled container for disposal or re-use.

For Cleaning Up: Wash contaminated surfaces with detergent. Dispose of all wastes in accordance with all local, regional and national regulations.

Reference to other sections: Refer to Sections 7, 8 & 13 for further details of personal precautions, personal protective equipment and disposal considerations.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: Do not handle the product near food, animal foodstuffs or drinking water. Keep out of reach of children. Do not use near heat sources, open flame, or hot surfaces. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Conditions for safe storage, including any incompatibilities: Store only in original container in a cool, dry place, inaccessible to pets and wildlife. Do not contaminate water, food or feed by storage or disposal. Keep containers closed and away from other chemicals.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Established Limits

Component	OSHA	ACGIH	Other Limits
Zinc Phosphide	Not Established	Not Established	Not Established

Appropriate Engineering Controls: Not required

Occupational exposure limits: Not established

Personal Protective Equipment:

Respiratory protection: Persons loading pellets or baits into aircraft or mechanical ground equipment and persons loading/applying with a hand-pushed or hand-held equipment, such as a push-type spreader or cyclone spreader, must wear a dust/mist filtering respiration (MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with a R, P, or HE filter).

Eye protection: Protective eyewear.

Skin protection: Gloves, long sleeve shirt, long pants, shoes, and socks should be worn when handling the bait.

Hygiene recommendations: Keep and wash PPE separately from other laundry. Remove PPE immediately after handling this product.

Wash the outside of gloves before removing. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco or using the toilet, and change into clean clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance/Color:	Grey coated oat groat
Odor:	Garlic-like
Odor Threshold:	No data
pH:	No data
Melting point:	No data
Boiling point:	No data
Flash point:	No data
Evaporation rate:	No data
Flammability:	No data
Upper/lower flammability or explosive limits:	No data
Vapor Pressure:	No data
Vapor Density:	No data
Relative Density:	1.35 g/mL @ 20°C

Solubility (water):	Negligible
Solubility (solvents):	No data
Partition coefficient: n-octanol/water:	No data
Auto-ignition temperature:	No data
Decomposition temperature:	No data
Viscosity:	No data

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Stable when stored in original container in a cool, dry location.
Chemical stability: Stable when stored in original container in a cool, dry location.
Possibility of hazardous reactions: Refer to Hazardous decomposition products
Conditions to avoid: Avoid extreme temperatures (below 0°C or above 40°C).
Incompatible materials: Avoid water, acidic materials.
Hazardous decomposition products: Avoid exposure to acidic conditions, light, heat, and extreme humidity. Exposure to acidic conditions may result in the liberation of flammable phosphine gas. Oxides of zinc and phosphide.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity

LD50, oral (ingestion): >2000 mg/kg (rats) (Zinc phosphide Rat LD50 oral: 21.0 mg/kg bw).
LD50, dermal (skin contact): > 5001 mg/kg (rats) (Zinc phosphide rabbit LD50 dermal: 2000 - 5000 mg/kg bw).
LC50, inhalation: Product is a coated oat groat and therefore exposure by inhalation is not relevant.
Skin corrosion/irritation : Not irritating to skin.
Serious eye damage/Irritation: Slight eye irritation potential
Respiratory or skin sensitization: Dermal sensitization: Not a Sensitizer (Guinea pig maximization test).
Germ cell mutagenicity: Contains no components known to have a mutagenetic effect.
Carcinogenicity: Contains no components known to have a carcinogenetic effect.

Components	NTP	IARC	OSHA
Zinc Phosphide	Not listed	Not listed	Not listed

Reproductive Toxicity: No data
Aspiration Hazard: Not applicable. Product is a coated oat groat.
Target Organ Effects: None

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity Effects: This product is toxic to fish and wildlife. Keep out of lakes, streams or ponds.
Persistence and degradability: Product is inherently biodegradable.
Bioaccumulative potential: Not determined. Zinc phosphide water solubility is extremely low (< 0.1mg/l).
Mobility in Soil: Not determined. Mobility of zinc phosphide in soil is considered to be limited.
Other adverse effects: None.

SECTION 13. DISPOSAL CONSIDERATIONS

Do not reuse empty container. Dispose of unused or spoiled bait in accordance with local requirements. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make the empty container unsuitable for further use. Dispose of the container in accordance with provincial requirements. For information on the disposal of unused, unwanted product contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

SECTION 14. TRANSPORT INFORMATION

UN number: Not regulated
UN proper shipping name: Not regulated
Transport hazard class(es): Not regulated
Packing group : Not regulated
Environmental Hazards
DOT Road/Rail: Not considered hazardous for transportation via road/rail.
DOT Maritime: Not considered hazardous for transportation by vessel.
DOT Air: Not considered hazardous for transportation by air.
Canadian Classification: Not considered hazardous
Freight Classification: LTL Class 60
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable
Special precautions for user: None

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

Health Canada PMRA: This pesticide product is regulated by the Pesticide Management Regulatory Agency of Health Canada and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The safety, health, environmental, and hazard information required on the pesticide label is listed below and reflected throughout this SDS. The pesticide label also includes other important information, including directions for use.

TSCA: All components are listed on the TSCA Inventory or are not subject to TSCA requirements

CERCLA/SARA 313: Not listed

CERCLA/SARA 302: Not listed

SECTION 16. OTHER INFORMATION

For additional information, please contact the manufacturer noted in Section 1.

NFPA	Health: 2 (caution)	Flammability: 1 (slight)	Reactivity: 0 (stable)	Specific Hazard: None
HMIS	Health: 2 (moderate)	Flammability: 1 (slight)	Reactivity: 0 (minimal)	Protective Equipment: B

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