



Canadian Product Guide

Rodenticides & Bait Stations



TECHNOLOGY. PRODUCTS. PEOPLE.

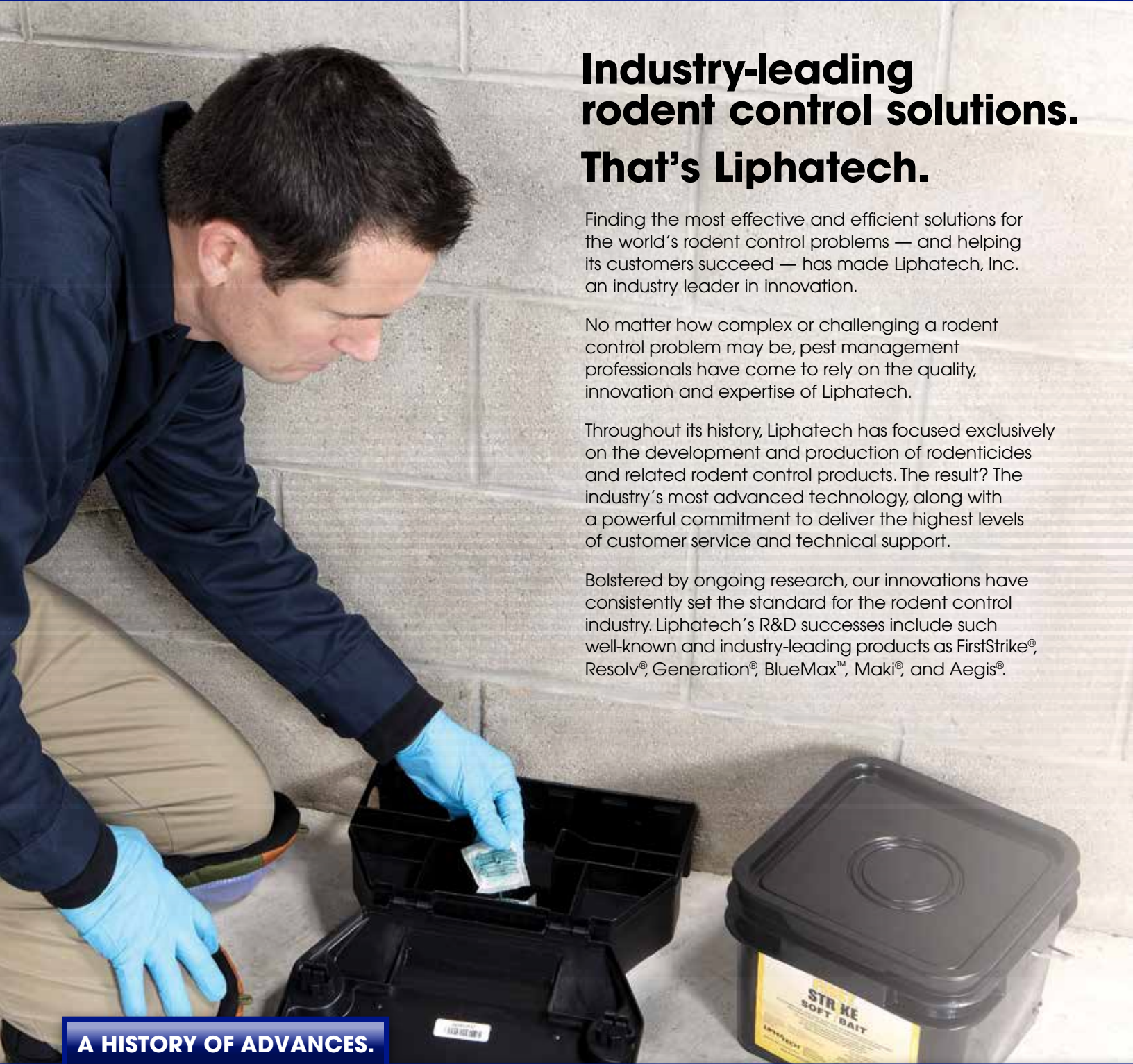


LIPHA[®]TECH[®]

Advanced technology. Effective control.



A E G I S[®]



Industry-leading rodent control solutions. That's Liphatech.

Finding the most effective and efficient solutions for the world's rodent control problems — and helping its customers succeed — has made Liphatech, Inc. an industry leader in innovation.

No matter how complex or challenging a rodent control problem may be, pest management professionals have come to rely on the quality, innovation and expertise of Liphatech.

Throughout its history, Liphatech has focused exclusively on the development and production of rodenticides and related rodent control products. The result? The industry's most advanced technology, along with a powerful commitment to deliver the highest levels of customer service and technical support.

Bolstered by ongoing research, our innovations have consistently set the standard for the rodent control industry. Liphatech's R&D successes include such well-known and industry-leading products as FirstStrike®, Resolv®, Generation®, BlueMax™, Maki®, and Aegis®.

A HISTORY OF ADVANCES.

1967

Chlorophacinone
Active ingredient in our first multi-feed anticoagulant bait product known as **Rozol®** – invented by Liphatech.

1976

Bromadiolone
Our initial second-generation anticoagulant rodenticide, invented by Liphatech and later branded under the **Maki®** name.

1984

Difethialone
Second-generation anticoagulant discovered by Liphatech.

1995

Generation®
The active ingredient difethialone is combined with food-grade grains for maximum palatability.

2000

Aegis® Bait Stations
The industry's most effective and fast-to-service rodent bait station line.

2001

Aegis® Modular System
The option of using rodenticides, snap traps or glue boards for control of rodents.

2004

Aegis®-RP Bait Station
Multiple uses, flexible mounting options and unmatched effectiveness in one complete quick-to-service package.

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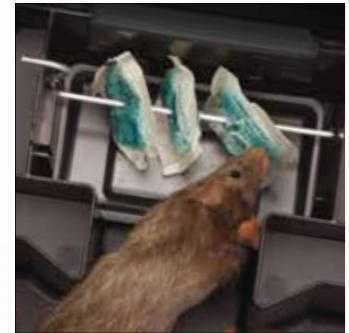
Our products meet stringent requirements and go through a rigorous quality control process.



We are committed to ensuring each block, pouch, pellet and station meets the highest quality levels.



Our R&D investments help guarantee we are on the cutting edge of innovation.



We invented difethialone, the active ingredient in our revolutionary FirstStrike® soft bait.

Our Pest Management Mission

Liphatech creates successful partnerships with Pest Management Professionals by offering superior and innovative rodent control products.

We strive to consistently provide outstanding and fast customer service to assist PMPs throughout Canada in improving the quality of human life.

We have innovation down to a science.

It all began in 1946 when Liphatech's original parent company began as a pharmaceutical company in France. Through the 1960s and 70s, Liphatech's research led to the development of two anticoagulants, chlorophacinone and bromadiolone.

Liphatech's continuing emphasis on research and development resulted in the discovery of difethialone during the mid-1980s, with PMRA registration as an active ingredient in 2000.

Since 2002, Liphatech has been a proud member of the De Sangosse group, a world-wide leader in manufacturing and distributing agrosupplies and pest control products. By providing global support, we are able to serve the pest control industry — whether you're a large or small-size business. And just as you'd expect from a global leader, Liphatech continues to invest substantial resources to research and develop the rodent control products of the future.

2005

BlueMax™
A highly durable maintenance block offering mold protection and durability.

2010

FirstStrike®
Soft bait with highly effective results in combating persistent rodents, extremely palatable and doesn't melt in hot conditions.

2010

SecurePoint™ Technology
Available in Aegis mouse stations, holds bait securely in station.

2010

Aegis®-RP Anchor Station pre-assembled to a durable concrete base – eliminating hardware and labor costs.

2014

Resolv®
A soft bait that provides strong results with a lower cost-per-placement and labeled for outdoor and indoor use.

2017

SoftSecure™ Technology
Rodenticide placement device specifically designed for soft bait and faster servicing.

**FIRST
STRIKE**



RESOLV



generation



FirstStrike®	Resolv®	Generation®
<p>Active Ingredient: Difethialone (Liphatech exclusive)</p> <ul style="list-style-type: none"> • Anticoagulant; Vitamin K₁ is antidote • Formulated and effective at 25 PPM • 5.7g (0.20 oz.) is LD₅₀ for an adult rat, 0.4g (0.01 oz.) for an adult mouse 	<p>Active Ingredient: Bromadiolone (Liphatech invention)</p> <ul style="list-style-type: none"> • Anticoagulant; Vitamin K₁ is antidote • Formulated and effective at 50 ppm • 7.1g (0.25 oz.) is LD₅₀ for an adult rat, 0.7g (0.02 oz.) for an adult mouse 	<p>Active Ingredient: Difethialone (Liphatech exclusive)</p> <ul style="list-style-type: none"> • Anticoagulant; Vitamin K₁ is antidote • Formulated and effective at 25 PPM • 5.7g (0.20 oz.) is LD₅₀ for an adult rat, 0.4g (0.01 oz.) for an adult mouse
<p>Best Uses:</p> <p>Ideal for combating lingering rodents, tough infestations or even for everyday use. High acceptance by rodents, even when competing food is available. Does not melt in hot temperatures.</p>	<p>Best Uses:</p> <p>The first soft bait approved for indoor and outdoor use. Strong results with low cost-per-placement make it ideal for everyday use. Different flavor profile from FirstStrike. High acceptance by rodents even when competing food is available. Does not melt in hot temperatures.</p>	<p>Best Uses:</p> <p>Best mini block for results. Versatile formulations for multiple situations.</p>
<p>Bait Formulations:</p> <p>Soft Bait</p> <ul style="list-style-type: none"> • 10g (0.35 oz.) pouch size offers flexible dosing through single or multiple pouch placements <ul style="list-style-type: none"> – 700 pouches per 7kg pail – 350 pouches per 3.5kg pail • Aroma escapes through pouch to attract rodents and encourage feeding • Easy clean up as rodents consume the bait instead of scattering it • Can be secured in a tamper-resistant bait station 	<p>Bait Formulations:</p> <p>Soft Bait</p> <ul style="list-style-type: none"> • 12g (0.42 oz.) pouch size offers flexible dosing through single or multiple pouch placements <ul style="list-style-type: none"> – 583 pouches per 7kg pail • Aroma escapes through pouch to attract rodents and encourage feeding • Easy clean up as rodents consume the bait instead of scattering it • Can be secured in a tamper-resistant bait station 	<p>Bait Formulations:</p> <p>Mini Blocks</p> <ul style="list-style-type: none"> • Convenient 20g (0.71 oz.) size means lower cost per placement <ul style="list-style-type: none"> – 500 blocks per 10kg pail – 250 blocks per 5kg pail • Multiple edges to encourage feeding • Less wax content to keep bait palatable • Whole millet seed appeals to natural seed preference for mice • Can be secured in a tamper-resistant bait station <p>Paraffinized Pellets – Bulk</p> <ul style="list-style-type: none"> • 5kg (20 lb.) pail • Appeals to a rodent's natural seed-eating behavior • Contains paraffin for moisture tolerance • Use for mouse control where pellet hoarding will not cause concern <p>Paraffinized Pellets – Place Packs</p> <ul style="list-style-type: none"> • 25g (0.88 oz.) per pack <ul style="list-style-type: none"> – 100 packs per pail • Minimize applicator contact with the rodenticide • Pre-measured doses promote cost effectiveness
<p>Special Features:</p> <ul style="list-style-type: none"> • Bittering agent added to help avoid accidental consumption • Contains no wax, enhancing its palatability to rats and mice • Easily identify if rats or mice are eating the bait based on feeding patterns • Contains food grade oil and grains; nut-free 	<p>Special Features:</p> <ul style="list-style-type: none"> • Bittering agent added to help avoid accidental consumption • Contains no wax, enhancing its palatability to rats and mice • Easily identify if rats or mice are eating the bait based on feeding patterns • Contains food grade oil and grains; nut-free 	<p>Special Features:</p> <ul style="list-style-type: none"> • Contains less wax and dye to enhance palatability • Great taste that rodents can't resist

Rodenticide Products

BlueMax™



Soft Secure™ Technology



BlueMax™	Maki®	SoftSecure™ Technology (SST)
<p>Active Ingredient: Difethialone (Liphatech exclusive)</p> <ul style="list-style-type: none"> • Anticoagulant; Vitamin K₁ is antidote • Formulated and effective at 25 PPM • 5.7g (0.20 oz.) is LD₅₀ for an adult rat, 0.4g (0.01 oz.) for an adult mouse 	<p>Active Ingredient: Bromadiolone (Liphatech invention)</p> <ul style="list-style-type: none"> • Anticoagulant; Vitamin K₁ is antidote • Formulated and effective at 50 PPM • 7.1g (0.25 oz.) is LD₅₀ for an adult rat, 0.7g (0.02 oz.) for an adult mouse 	<p>Rodenticide Placement Device:</p> <ul style="list-style-type: none"> • Easily fits into most bait stations; designed for Aegis bait stations • Easy to use; just place the bait in the SST, close the lid and go. Rodents consume the bait between the bars
<p>Best Uses:</p> <p>Use block bait where crumbs and scatter are a concern. Place block bait in areas with mold potential. Good solution for food processing and commercial accounts. Excellent for moist and humid conditions.</p>	<p>Best Uses:</p> <p>Excellent control for Norway rats. Paraffinized pellets resist moisture in Norway rat burrows. Ideal for rotation with Generation or BlueMax. Blocks hold up well in sewers.</p>	<p>Best Uses:</p> <p>Works with all Liphatech soft bait as well as traditional blocks. SST easily fits into most bait stations, eliminating bait rod hassles. Designed for Aegis bait stations.</p>
<p>Bait Formulations:</p> <p>Mini Blocks</p> <ul style="list-style-type: none"> • 20g (0.71 oz.) blocks <ul style="list-style-type: none"> – 340 blocks per 6.8kg pail • Blue marker dye, can be seen in droppings • Multiple edges to encourage feeding • Optimum wax content for maximum durability • Less crumbs inside the bait station • Less scatter outside the bait station • Can be secured in a tamper-resistant bait station 	<p>Bait Formulations:</p> <p>Mini Blocks</p> <ul style="list-style-type: none"> • 28g (1.0 oz.) blocks <ul style="list-style-type: none"> – 357 blocks per 10kg pail • Multiple edges to encourage feeding • Can be secured in a tamper-resistant bait station <p>Paraffinized Pellets – Bulk</p> <ul style="list-style-type: none"> • 10kg pail • Best choice for Norway rat burrows • Appeals to a rodent's natural seed-eating behavior • Contains paraffin for maximum moisture tolerance • Use for mouse control where pellet hoarding will not cause concern 	<ul style="list-style-type: none"> • Available for purchase in cases; 12 SSTs per case
<p>Special Features:</p> <ul style="list-style-type: none"> • Several preservatives for maximum mold prevention • Blocks are an excellent maintenance bait for audited accounts 	<p>Special Features:</p> <ul style="list-style-type: none"> • Contains whole food grade grains • Trusted brand for decades 	<p>Special Features:</p> <ul style="list-style-type: none"> • Device raises bait above floor of station, keeping it dry



Aegis[®] Bait Stations

All bait boxes may look the same, but features in the Aegis family of products prove that Aegis delivers the highest quality quick-to-service station at a competitive price. You can get in, get out and get on with servicing your customers.



Easy to Open—The Aegis key easily opens all Aegis stations.



Savings—No assembly time means more servicing time.



Longevity—Door-like hinges are long lasting.



Encouragement—See-through design improves rodent entry.



Less Travel—A shorter distance between the rodent and the bait means success.



Accessible—Rat stations open away from the wall so you don't have to fight against the lid.

Aegis[®] Mouse

- All black or with clear lid
- Twice the capacity of most mouse stations
- Specially designed to hold FirstStrike[®] and Resolv[®] soft bait

Bait Station Products



Aegis®-RP

- Available in black or grey
- Use with snap trap or rodenticide
- Lid opens away from wall
- Compact size
- Install either horizontally or vertically
- “See through” design lures rodents



Aegis®-RP Anchor

- Available in black or grey with an integrated concrete block
- Two bolts embedded into concrete
- Great looking professional design
- Pre-assembled station eliminates set-up hassle and costs
- Install either horizontally or vertically



Aegis® Rat

- Available in black, white (Cool Box) or black with clear lid
- Double-tunnel design for improved bait consumption



Aegis® Modular

- Available in black
- Heavy duty station
- Use with bait, traps or glue boards

Rodent Identification & Control Tips.



NORWAY RAT

TAIL: Shorter than head & body
BODY: Heavy, thick
EARS: Average
EYES: Small
NOSE: Blunt

Also known as Brown Rat

DROPPINGS:

Blunt
 Average length 3/4"



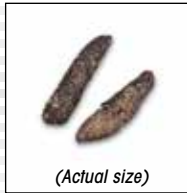
ROOF RAT

TAIL: Longer than head & body
BODY: Slender
EARS: Large
EYES: Large
NOSE: Pointed

Also known as Black Rat

DROPPINGS:

Pointed
 Average length 1/2"

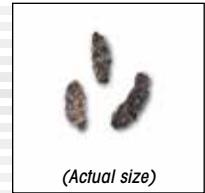


HOUSE MOUSE

TAIL: Long
BODY: Small
EARS: Large
EYES: Small
NOSE: Pointed
FEET: Small
HEAD: Small

DROPPINGS:

Pointed
 Average length 1/4"



RODENTS *Family Muridae* (All data based on adult, wild rodents)

NAME	TYPICAL LIFE SPAN	TYPICAL LITTERS/ GESTATION	TYPICAL WEIGHT	LENGTH		EARS	COLOR	FOOD PREFERENCES	FOOD CONSUMPTION PER DAY	WASTE PER DAY	HABITS
				BODY	TAIL						
NORWAY RAT <i>Rattus norvegicus</i>	6-18 mos.	# of young in litter 6-12	10-17 oz.	Heavy, broad 7"-10" long, blunt head	6"-8.5" long, lighter color on underside	Average, close to body	Usually greyish-brown, but can vary from grey to dark brown. Belly is lighter.	Meats, fish, flour, fruits, vegetables. Eats most human foods.	1-2 feedings 3/4-1 oz. food 1/2-1 oz. water	Droppings 40-50 Urine 15.7 cc	Prefers to live in burrows in earth. May nest in basements and walls if population is large. May forage 400 feet for food. Fair climber, good swimmer. Most active at night.
		Gestation 21-23 days									
ROOF RAT <i>Rattus rattus</i>	18 mos.	# of young in litter 4-8	6-12 oz.	Slender 6.5"-8" long, pointed muzzle	7.5"-10" long, uniform color, top & underside	Large, prominent	Usually dark brown to nearly black. Belly is lighter and greyish.	Seeds, fruits, vegetables, grains, eggs, etc. Eats most human foods.	6-8 feedings 1/2-1 oz. food Up to 2 oz. water	Droppings 40-50 Urine 15.7 cc	Usually enters and nests in upper parts of buildings. Also nests outdoors in trees (esp. palms), ivy, etc. May forage 400 feet for food. Seldom burrows. Excellent climber. Most active at night.
		Gestation 20-23 days									
HOUSE MOUSE <i>Mus musculus</i>	6 mos. outdoors/ 18 mos. indoors	# of young in litter 5-6	1/2-1 oz.	Average 2.5"-3.5" long	3"-4" long	Large, prominent	Varies from light brown to dusky grey to nearly black. Belly is lighter.	Meats, grains, cereals, seeds, fruits, vegetables. Eats most human foods.	20-30 feedings 1/10 oz. food No water (not needed if food contains 16% moisture)	Droppings 50-75 Urine 1.75 cc	Prefers nests near food but may forage 30 feet or more. Nibbles small amounts of food from numerous feeding spots. Most active at night.
		Gestation 18-21 days									

Commensal Rodents

Sanitation

- Sanitation is the cornerstone of lasting rodent control. There is no substitute for sanitation, and the program must be continuous or the benefits derived from sanitation will be quickly lost to reinvading rodents.
- Reduce harborage by eliminating weeds, refuse piles, overgrown vegetation and rubbish piles.
- Place garbage and trash in garbage cans and industrial dumpsters with tight fitting covers.
- Eliminate as much of the rodent's water source as possible, as rats need water daily and mice will drink freestanding water if available.

Exclusion

- Since it is much easier to control rodents outside of a structure rather than within, the most successful and permanent form of rodent control is to "build them out."
- Cracks and openings in building foundations must be sealed. Doors, windows and screens should be tight-fitting.
- Use materials that are "gnawproof" such as sheet metal, expanded metal, perforated metal, floor drain grates, hardware cloth and cement mortar. Materials having an opening of 1/4 inch or less will exclude both rats and mice.

Baiting

- Place baits in safe, secluded areas where rodents frequent. Proper placement of bait is extremely important as rodents tend to follow established paths from nests to food. They may not encounter bait placed too far from their path.
- Make sure you use enough rodenticide so the rodents cannot eat it all before your next service visit. Under-baiting is one of the most common causes of rodent control failures.
- Use bait forms that are suited to the particular conditions. Soft baits can overcome competing food sources and they hold up well to heat; wax blocks may be the best formulation in damp areas; pellets are well suited for rat burrow treatment.
- Store baits in areas where chemical contamination will not occur. Rodents can detect contamination and will not consume the tainted bait.
- Be sure to follow label directions and use tamper-resistant bait stations.



Non-chemical Control

- Trapping is recommended where rodenticide use is inadvisable, such as places where the material can't be adequately secured from children and non-target animals.
- There are a variety of snap traps for both rats and mice. When using snap traps, it is best to place the traps unset but baited (pre-baiting) for several days to acclimate the rodents to traps. Once bait is taken without hesitation, set the traps, kill some rodents and then go back to pre-baiting.
- There is also a variety of multi-catch mouse traps on the market. They can be effective if they are positioned and maintained properly.
- Non-toxic soft bait attractant or blocks can be used to determine if a rodenticide treatment has been successful. They can also be used to monitor for initial entry of rodents into a previously rodent-free environment, without the need to keep a rodenticide in place. However, in this situation, elimination will be delayed by the time between service visits.

Canadian Product Guide

Rodenticides & Bait Stations



Conduct a thorough inspection to locate rodent nests, feeding sites, runways and entry points.



Liphatech products are designed to meet the wide variety of situations faced by rodent control professionals.



Work smarter. Take advantage of technology, such as Aegis® bar coding, to expedite service.

Call it technical support. Or call it a team of industry experts.

No matter how complex or challenging your rodent control problem, count on Liphatech for the right solution.

At Liphatech, we are known for our advanced chemistry, biology and technology. But our technical support is every bit as advanced. That's why Liphatech has assembled the industry's most experienced and knowledgeable sales force. They're all highly-trained and qualified to help you solve your toughest rodent control problems.

Whether you need hands-on guidance for a specific rodent control issue or have a simple question, we're always here with accurate answers to the technical issues you face every day. Additionally, Liphatech can provide specialized training and technical materials.

With the full support of Liphatech, you can serve your customers more effectively.



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Liphatech is proud to support several industry associations, including:



For additional information, call **888-331-7900** or visit www.liphatech.ca