Storm® Ultra Secure
A new generation of rodenticide bait
An innovative formulation in the form of a new generation block, with an active substance concentration of 25 ppm:

**Active substance**
- Flocoumafen C$_{33}$H$_{25}$F$_3$O$_4$
- Single Feed anticoagulant
- Concentration: 0.0025% (25 ppm)

**Patented formulation**
A new anticoagulant rodenticide (AVK) containing:
- A blend of high quality cereals
- an innovative cohesion binding agent (for maximum cereal incorporation)
- a taste deterrent (denatonium benzoate) and dye designed to help prevent accidental consumption by humans

**Storm® Ultra Secure** comes in the form of a ready-to-use, single feed 25g blocks, effective against all species of rats and mice.

The latest generation formulation, more powerful, single-ingestion
Rats and mice consume a lethal dose in a single feed, providing quick and easy control in all situations.

**Lethal dose (LD50) of bait (g) needed to kill a 250g rat and a 25g mouse:**

- **Brown rat** (*Rattus norvegicus*), Food consumed 25g/day
  - Storm® Ultra Secure: 3.8 g

- **House mouse** (*Mus musculus*), Food consumed 5g/day
  - Storm® Ultra Secure: 1.2 g

Flocoumafen (0.0025%)
- 3.8 g

Brodifacoum (0.0025%)
- 4.2 g

Difethialone (0.0025%)
- 6.0 g

A lethal dose (LD50) of Storm® Ultra Secure is equivalent to about 15% of daily food consumption in brown rats and 24% in domestic mice.
Public health issues as well as economic issues

Rodents can pose a serious risk to human and animal health but they also cause a lot of damage. In addition, urban and rural areas are an ideal playground providing food, water and shelter. Rodents create public health concerns and can create costly problems.

Did you know that?

A pair of rats = 20 million rats in 3 years

Up to 200 pathogens and 45 diseases\(^1\) can be spread to humans

A couple of mice may be the cause of thousands of descendants in one year

Structural damage
Rodents damage insulation, and use their teeth to gnaw through piped and electrical cables

42 million tons of food in the world is destroyed by rodents each year = £25.2 billion of damage

Medium and long term, rodents are a real nuisance

Stop them fast!
Control rodent populations with a quick and effective solution

BASF is developing new solutions for rodent control to preserve human health, hygiene and food safety.

\(^1\)Ontario Ministry of Agriculture, Food and Rural Affairs (retrieved 31 May 2017)
The fastest and most effective solution for rat and mouse control

- **Ultra palatable**

  Storm® Ultra Secure effectively controls rodents: **100% mortality.**

  Mortality with Storm® Ultra Secure against brown rats (Rattus norvegicus)

- **Ultra efficient**

  Storm® Ultra Secure effectively controls rodents: **100% mortality.**

- **Ultra control of rats and mice**

  Active on rodent species resistant to anticoagulants.

- **Ultra fast**

  Storm® Ultra Secure controls 100% of the rodent population in about 14 days (up to 10 days less than the main AVK baits)

- **Ultra durable**

  The new binder (wax free) provides better resistance to extreme temperatures, and is perfect to form a non-wax block, while maintaining excellent palatability.
Benefits of baiting with Storm® Ultra Secure compared to traditional baiting.
Based on Field trial data on brown rats*

<table>
<thead>
<tr>
<th></th>
<th>Traditional baits (with Difenacoum)</th>
<th>Storm® Ultra Secure</th>
<th>Advantages of using Storm® Ultra Secure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial baiting</td>
<td>10.00 kg</td>
<td>3.75 kg</td>
<td>6.25 kg less bait used</td>
</tr>
<tr>
<td></td>
<td>200 g x 50 points baited</td>
<td>75 g x 50 points baited</td>
<td>62.5 % less than traditional baits</td>
</tr>
<tr>
<td>Additional bait</td>
<td>8.19 kg</td>
<td>4.51 kg</td>
<td>3.68 kg less bait used</td>
</tr>
<tr>
<td>required</td>
<td></td>
<td></td>
<td>45 % less than traditional baits</td>
</tr>
<tr>
<td>Total amount of</td>
<td>18.19 kg</td>
<td>8.26 kg</td>
<td>9.93 kg less bait used</td>
</tr>
<tr>
<td>bait used</td>
<td></td>
<td></td>
<td>55 % less than traditional baits</td>
</tr>
<tr>
<td>Typical baiting</td>
<td>DAY 0 2 4 8 11 15 18 21</td>
<td>DAY 0 7 14 21</td>
<td>4 visits less in total</td>
</tr>
<tr>
<td>schedule</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Data BASF
Storm® Ultra Secure

- Ultra palatable for rats and mice
- Ultra resistant to extreme conditions
- Ultra effective with just a single feed
- Ultra quick control of rodent infestations

“Taking them by storm”

Applications and amounts of Storm® Ultra Secure

<table>
<thead>
<tr>
<th>Target</th>
<th>Location</th>
<th>Rate of application (per area)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>House mouse (Mus musculus)</td>
<td>In and around buildings</td>
<td>25g (1 block) every 1 to 2 metres</td>
<td>Pulsed baiting: Replace eaten bait only after 3 days and then at maximum 7-day intervals</td>
</tr>
<tr>
<td>Brown rat (Rattus norvegicus)</td>
<td>In and around buildings / in burrows*</td>
<td>50 to 75g (2 to 3 blocks every 10 metres)</td>
<td></td>
</tr>
<tr>
<td>Black rat (Rattus rattus)</td>
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</tr>
</tbody>
</table>

*For direct application in burrows. Cover or block burrow entrances. Sites where burrow baiting is used must be visited more frequently than those where secure bait boxes are employed.

Evaluation of the state of Infestation

Products shall not be used beyond 35 days without an evaluation of the state of the infestation and of the efficacy of the treatment.

Remember: Do not use Storm® Ultra Secure as permanent baits.