MAGNATHOR MAGNETIC Cockroach Bait is a dry, flowable powder bait that contains a desirable blend of food attractants that lure the foraging cockroaches towards the MAGNATHOR Kill Zone™. As they approach the Kill Zone the cockroaches literally act like a magnet and draw the MAGNATHOR particles to their exoskeletons resulting in their death. This is because MAGNATHOR employs the power of paramagnetism. The magnetic properties of the constituent powders of MAGNATHOR cause the powder to adhere to the cockroach’s exoskeleton upon contact. The powder enters the cockroaches’ bodies through the soft membranes in the exoskeleton. When compared with conventional gel baits, dusts and powders, MAGNATHOR’s magnetic properties deliver superior results in the two critical areas of adhesion and transferability resulting in accelerated kill.

A key benefit of MAGNATHOR is that, since it is a dry flowable powder bait, it will travel deep into cracks, crevices and other cockroach harbourages. So it will get to places you simply cannot reach with other baits.

LEVEL 1 - Accelerated Primary Kill arises since a foraging cockroach cannot help but approach the MAGNATHOR Kill Zone™ as the magnetic properties of the bait attract the cockroach due to the magnetic attraction between the MAGNATHOR magnetic component and the magnetic charged exoskeleton of the cockroach. Thus the cockroach is tapped by the magnetic field of the bait prior to it even setting foot on the bait.

The forager enters the cockroach through the soft membranes of the exoskeleton. Passive Accelerated Primary Kill, occurs when the MAGNATHOR is ingested. Active Accelerated Primary Kill. This was confirmed in studies by Smith and Moores at Rothamsted Experimental Station, UK, which showed that cockroaches picking up an average of 56% more particulate material than those passing over a deposit of inert powder.

LEVEL 2 - Accelerated Secondary Kill arises when the MAGNATHOR is transferred to other cockroaches in the population. As the chemical fipronil contained in MAGNATHOR is transferred between cockroaches, newly hatched nymphs also partake in coprophagy to greatly increase the fipronil passed to other cockroaches. This natural behaviour is further well exploited by MAGNATHOR. Newly hatched nymphs also partake in coprophagy to greatly increase the fipronil passed to other cockroaches. This natural behaviour is further well exploited by MAGNATHOR.

LEVEL 3 - Accelerated Viral Transfer provides for faster dissemination of the chemical through coprophagy (faecal consumption) and grooming behaviour. This is because 25% of the MAGTHANITE is transferred to other cockroaches in the population. This was confirmed in studies by Smith and Moores at Rothamsted Experimental Station, UK, which showed that cockroaches passing over a residual deposit of MAGTHANITE picked up an average of 56% more particulate material than those passing over a deposit of inert powder.

Buczkowski and Schal have shown that fipronil induces vomiting in cockroaches about 4 hours after ingestion. This vomiting is actively initiated by the insect’s natural regurgitation reflex. Newly hatched nymphs also partake in coprophagy to greatly increase the fipronil passed to other cockroaches. This natural behaviour is further well exploited by MAGNATHOR.

So the paramagnetic properties of MAGNATHOR micromanipulate the cockroaches into picking up a massive dose of fipronil that is further spread throughout the colony. Consequently MAGNATHOR is equally effective on German and American cockroaches, as well as in the control of their nymphal stages.

MAGNATHOR’s Accelerated Multiple Cascade Effect™ which provides a three-level mortality chain, with the transfer of the fipronil between cockroaches. MAGNATHOR’s Accelerated Multiple Cascade Effect™ which provides a three-level mortality chain, with the transfer of the fipronil between cockroaches.
MAGNATHOR™ MAGNETIC COCKROACH BAIT represents another generational step forward in cockroach management using a totally innovative concept to give improved results.

3. All studies were completed by Product Safety Labs, Dayton, NJ, USA in accord with US EPA Health Effects Test Guidelines. Studies included Acute Dermal Toxicity in Rats, Acute Oral Toxicity in Rats, Primary Eye Irritation Study in Rabbits, Primary Skin Irritation Study in Rabbits, Acute Inhalation Toxicity in Rats, Local Lymph Node Assay (LLNA) in Mice and Reverse Mutation Assay using Bacteria (Salmonella typhimurium and Escherichia coli).

PARAMAGNETISM - MAGNETIC ATTRACTION THAT LEADS TO DESTRUCTION

MAGNATHOR employs the power of paramagnetism. This is the weak magnetic attraction shown by most elements and some compounds in the presence of a magnetic field. Paramagnetic substances are not permanently magnetised by exposure to the field and revert to an un-magnetised state in its absence.

Cockroaches use the earth’s magnetic field to help them to orientate and navigate whilst foraging, migrating and building their nests.1 The cockroach cuticle has also been shown to be negatively charged in the presence of paramagnetic materials.2 This appears to be related to the presence of particles of magnetite in their bodies. Magnetite is a ferromagnetic substance, generating its own magnetic field, just like a compass needle. Consequently, insect skin shows a clear attraction to ferromagnetic particles that is exploited by MAGNATHOR through the use of the proprietary compound, MAGTHANITE®.

MAGTHANITE® itself is not chemically active and is classified as a non-hazardous oxide powder. It is a proprietary blend of Myranite and strontium ferrite. Myranite is a specialist ferro-sillicate powder developed for the modern electronics industry that is itself a proprietary blend of iron oxide, silicon dioxide, aluminium oxide, zinc oxide, and calcium oxide. MAGTHANITE® is a non-sensitising, low toxic carrier with dermal and oral LD₅₀ values >5,000 mg/kg.3 MAGTHANITE® provides the magnetic power behind MAGNATHOR. Independent research has supported the attraction between MAGTHANITE® and insect cuticles.

PARAMAGNETISM

Magnetic field ABSENT
Magnetic field PRESENT

FERROMAGNETISM

Magnetic field ABSENT
Magnetic field PRESENT

The cockroaches are lured to the MAGNATHOR Kill Zone by the food attractant. When they approach the Kill Zone, through the power of magnetism, the cockroaches draw the MAGNATHOR particles with the fipronil to them.

The ACCUTHOR Precision Blower
for the accurate dispensing of MAGNATHOR

So easy to use!

Simple and mess free!

Step One: Unscrew and remove the lid from the MAGNATHOR vial.

Step Two: Attach and screw on the ACCUTHOR Precision Blower.

Details:

- MAGNATHOR™ MAGNETIC COCKROACH BAIT represents another generational step forward in cockroach management using a totally innovative concept to give improved results.
- MAGNATHOR employs the power of paramagnetism, which is the weak magnetic attraction shown by most elements and some compounds in the presence of a magnetic field. Paramagnetic substances are not permanently magnetised by exposure to the field and revert to an unmagnetised state in its absence.
- Cockroaches use the earth’s magnetic field to help them to orientate and navigate whilst foraging, migrating and building their nests. The cockroach cuticle is negatively charged in the presence of paramagnetic materials. This appears to be related to the presence of particles of magnetite in their bodies.
- Magnetite is a ferromagnetic substance, generating its own magnetic field, just like a compass needle. Consequently, insect skin shows a clear attraction to ferromagnetic particles that is exploited by MAGNATHOR through the use of the proprietary compound, MAGTHANITE®.
- MAGTHANITE® itself is not chemically active and is classified as a non-hazardous oxide powder. It is a proprietary blend of Myranite and strontium ferrite. Myranite is a specialist ferro-sillicate powder developed for the modern electronics industry that is itself a proprietary blend of iron oxide, silicon dioxide, aluminium oxide, zinc oxide, and calcium oxide.
- Independent research has supported the attraction between MAGTHANITE® and insect cuticles.
- MAGNATHOR™ MAGNETIC COCKROACH BAIT is designed to be used with the ACCUTHOR Precision Blower, which is simple and mess-free.

References:
3. All studies were completed by Product Safety Labs, Dayton, NJ, USA in accord with US EPA Health Effects Test Guidelines. Studies included Acute Dermal Toxicity in Rats, Acute Oral Toxicity in Rats, Primary Eye Irritation Study in Rabbits, Primary Skin Irritation Study in Rabbits, Acute Inhalation Toxicity in Rats, Local Lymph Node Assay (LLNA) in Mice and Reverse Mutation Assay using Bacteria (Salmonella typhimurium and Escherichia coli).