

**MAXFORCE GRANULAR FLY BAIT**

MSDS Version 1.

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name MAXFORCE GRANULAR FLY BAIT
Chemical Name 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine
Synonym
MSDS Number 1856
Chemical Family Nicotinoid
Chemical Formulation C9H10CIN5O2
EPA Registration No.
Canadian Registrat. No.

Bayer Environmental Science
95 Chestnut Ridge Road
Montvale, NJ 07645
USA

For Product Use Information: (800)331-2867 Monday through Friday(CRLF) 8:00AM-4:30PM(CRLF) For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day(CRLF) For Transportation Emergency CHEMTREC: (800) 424-9300 24 Hours/Day

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Imidacloprid	138261-41-3	0.5000	

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview CAUTION
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
This product is toxic to aquatic invertebrates.

Physical State Solid (granules)
Odor Slight characteristic
Appearance colourless
Immediate Effects
Eye Avoid contact with eye.

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Skin	Harmful if absorbed through skin.																		
Ingestion	Harmful if swallowed.																		
Inhalation	Harmful if inhaled.																		
Chronic or Delayed Long-Term	The long-term effects after continuous administration of imidacloprid in the diet were investigated in three mammalian species. The following dosages were tolerated without adverse effects (NOAEL): <table><tr><td>Rats (24 months):</td><td>males/females:</td><td>100/300 mg /kg diet (ppm)</td></tr><tr><td></td><td>equal to:</td><td>5.7/24.9 mg/kg diet (ppm)</td></tr><tr><td>Dogs (12 months):</td><td>males/females:</td><td>500 mg/kg diet (ppm)</td></tr><tr><td></td><td>equal to:</td><td>15 mg/kg bw/day</td></tr><tr><td>Mice (24 months):</td><td>males/females:</td><td>330 mg/kg (ppm)</td></tr><tr><td></td><td>equal to:</td><td>65.6/103.6 mg/kg bw/day</td></tr></table>	Rats (24 months):	males/females:	100/300 mg /kg diet (ppm)		equal to:	5.7/24.9 mg/kg diet (ppm)	Dogs (12 months):	males/females:	500 mg/kg diet (ppm)		equal to:	15 mg/kg bw/day	Mice (24 months):	males/females:	330 mg/kg (ppm)		equal to:	65.6/103.6 mg/kg bw/day
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SECTION 4. FIRST AID MEASURES

Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 15 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Ingestion	Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Note to Physician	No specific antidote is available. Treat patient symptomatically.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point	> 200 degrees F
Suitable Extinguishing Media	Water, Carbon Dioxide, Dry Chemical, Foam
Fire Fighting Instructions	Fire fighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Do not allow fire fighting water to enter sewer, surface waters, or ground water systems. Equipment and

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materials used in fighting pesticide fires may become contaminated.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal

Land Spill or Leaks

Evacuate and keep unnecessary people out of spill area. Use appropriate personal protective equipment during clean up. Spills should be swept up and placed in appropriate containers for disposal. Avoid creating dust conditions. Collect and place in appropriately marked sealable container for disposal. Wash spill area with soap and water. Soil, adsorbents, and other materials that are contaminated by the spilled product should be collected for proper disposal. Do not allow spilled material or wash water to enter sewers, surface waters, or groundwater system.

SECTION 7. HANDLING AND STORAGE

Handling Procedures

Do not contaminate water, food, or feed by storing or disposal. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco>

Storing Procedures

Store in cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, or feed.

Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage.

Work/Hygienic Procedures

Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye/Face Protection

Chemical safety goggles or glasses.

Respiratory Protection

Under normal conditions of use, special ventilation is not required. A NIOSH approved respirator for pesticides can be used to minimize exposure.

General Protection

Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product. Follow all label instructions. Launder clothing separately after use. Employees should wash their hands and face before eating, drinking, or using tobacco products.

Exposure Limits

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	colourless
Physical State	Solid (granules)
Odor	Slight characteristic
Density	1.54 g/cm ³ @ 20 degrees C
Solubility (in water)	0.61, no influence of pH-value
Solubility (in Solvent/Oil)	Solubility in organic solvents in accordance with the DAPA resolution: n-hexane: < 0.1 dichloromethane: 67 2-propanol: 2.3 toluene: 0.69
Molecular Weight	255.7 g/mol
Decomposition Temperature	144 degrees C
Octanol/Water Partition Coefficient	log P _{ow} : 0.57 @ 20 degrees C
Viscosity	4x10 ⁻¹² hPa @ 20 degrees C

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Conditions to Avoid	Oxidizing agents
Incompatibility	Extreme heat
Hazardous Products of Decomposition	Carbon monoxide, Carbon dioxide, Oxides of nitrogen, Hydrogen cyanide, Hydrogen chloride

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Hazardous Polymerization
(Conditions to avoid) Polymerization will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50: 450 mg/kg body weight (male and female rats)												
Acute Dermal Toxicity	LD50 : >5000 mg/kg body weight (male and female rats)												
Acute Inhalation Toxicity	Rats were exposed for 4 hours to a spray mist consisting of active ingredient and carrier. The maximum concentration that is technically feasible in the form of a respirable aerosol (69 mg active ingredient/m3). When exposing the animals for 4 hours to dust, the LC50 was determined to be >5323 mg active ingredient/m3 air.												
Skin Irritation	The active ingredient was not irritating to the skin of rabbits.												
Eye Irritation	The active ingredient was not irritating to eyes of rabbits.												
Sensitization	Tests on guinea pigs showed no evidence of a skin-sensitizing potential.												
Sub-Chronic Toxicity	Rabbits were dermally treated with the active ingredient for 15 x 6 h per day. A dose of 1000 mg/kg body weight/day was tolerated without systemic or locals effects. Rats which had been exposed 20 times for 6 hours per day, 5 days per week to a spray mist of active ingredient and a carrier showed no adverse effects at a concentration of 5.5 mg active ingredient/ m3 air. Imidacloprid was administered to rats and dogs continuously over a period of 3 months in the diet. The following doses without effects (NOAEL = No-Observed-Adverse-Effect Level) resulted: <table><tr><td>Rats:</td><td>males/females:</td><td>150/600mg/kg diet (ppm)</td></tr><tr><td></td><td>equal to:</td><td>14.0/83.3 mg/kg body weight/day</td></tr><tr><td>Dogs:</td><td>males/females</td><td>200mg/kg diet (ppm)</td></tr><tr><td></td><td>equal to:</td><td>5mg/kg body weight/day</td></tr></table>	Rats:	males/females:	150/600mg/kg diet (ppm)		equal to:	14.0/83.3 mg/kg body weight/day	Dogs:	males/females	200mg/kg diet (ppm)		equal to:	5mg/kg body weight/day
Rats:	males/females:	150/600mg/kg diet (ppm)											
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Dogs:	males/females	200mg/kg diet (ppm)											
	equal to:	5mg/kg body weight/day											
Chronic Toxicity	The long-term studies in rats and mice produced no evidence of carcinogenic properties.												

Assessment Carcinogenicity

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ACGIH

None

NTP

None

IARC

None

OSHA

None

Reproductive & Developmental Toxicity

In a feeding study in rats over two generations, a concentration of 250 mg/kg feed was tolerated without any adverse effect on reproductive performance, any damage to the offspring or any influence on the male rats. Dams tolerated a concentration of 100 mg/kg feed without adverse effect.

Neurotoxicity

Test with repeated administration of imidacloprid to different species of animals did not produce any clinical or histopathological evidence of neurotoxic effects.

Teratogenicity

The offspring of rabbits and rats, given imidacloprid orally during the sensitive phase of gestation, did not exhibit any primary embryotoxic or teratogenic effects.

Mutagenicity

The results of various in-vitro and in vivo tests performed with imidacloprid do not indicate any genotoxic hazard to in man.

SECTION 12. ECOLOGICAL INFORMATION

Acute and Prolonged Toxicity to Fish

Determination of the acute toxicity (LC 50 -96 h) of the active ingredient imidacloprid produced the following values for various fish species.

Golden orfe (<i>Leuciscus idus melanotus</i>)	237mg/l
Test temperature 21 degrees C)	
Rainbow trout (<i>Oncorhynchus mykiss</i> ;	211mg/l
Test temperature 15.4 degrees C)	
Carp (<i>Cyprinus carpio</i> ;	280mg/l
Test temperature 24 degrees C)	

In a 21-day test (at 15 degree C) with rainbow trout the lowest observed effect concentration (LOEC) was determined to be 61.5 mg/l. The no observed effect concentration (NOEC) was 28.5 mg/l.

Acute Toxicity to Aquatic Invertebrates

Food chain organisms- The EC 50 of imidacloprid for *Daphnia magna* (concentration of active ingredient in the water, at which 50% of the water fleas no longer show any swimming movements) was determined to be 85 mg/l after a test duration of 48 h at 20 degrees C.

In a reproduction test with *Daphnia magna* (21 days, 20 degrees C) the no observed effect concentration was 1.8 mg/l. First effects were observed at 3.5 mg/l.

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Algae-The EC 50 of imidacloprid for the growth rate of the green algae *Scenedesmus subspicatus* (96 h at 23 degrees C) was determine to be > 10 mg/l.

A detrimental effect on aquatic organisms after the use of imidacloprid in agricultural practice can therefore be precluded.

Toxicity Other Non Mammal Terr. Species

Investigations on the acute and subacute toxicity of imidacloprid to various bird species produced the following values:

Acute toxicity (LD 50 in mg/kg body weight -bw)

Japanese quail (<i>Coturnix coturnix japonica</i>)	31mg/kg bw
Bobwhite quail (<i>Colinus virginianus</i>)	152 mg/kg bw
Mallard duck (<i>Anas platyrhynchos</i>)	283 mg/kg bw

Subacute toxicity
(LC 50 in a 5-day feeding test in mg/kg diet)

Mallard duck (<i>Anas platyrhynchos</i>)	>4797 mg/kg diet
Bobwhite quail (<i>Colinus virginianus</i>)	2189 mg/kg diet
Japanese quail (<i>Coturnix coturnix japonica</i>)	392 mg/kg diet

The amounts of residues in green material and insects possibly resulting from the use of imidacloprid as fly bait according to the directions are not expected to cause any damage to birds if they feed on these. The safety to birds when used as fly bait is supported by a repellent effect which has been proven for numerous uses and various bird species.

Bird Toxicity of the formulation- Chicks (*Gallus gallus*) were offered bait for 5 days. No mortalities, no signs of intoxication, no effects on body weight development were observed. They refused to feed on the bait.

Environmental Precautions

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

Completely empty container.

Dispose of container at an approved waste disposal facility or by incineration if allowed by state and local authorities.

Do not use container in connection with food, feed, or drinking water.

Container Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

RCRA Classification

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SECTION 14. TRANSPORT INFORMATION

Proper Shipping Name: NOT REGULATED

SECTION 15. REGULATORY INFORMATION

US Federal Regulations

EPA Registration No.

TSCA list

None

TSCA 12b export notification

None

SARA Title III - section 302 - notification and information

None

SARA Title III - section 313 - toxic chemical release reporting

None

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State right-to-know ingredients

None

Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

None

Environmental

CERCLA

None

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

EU Classification

None

European Inventory of Existing Commercial Substances (EINECS)

None

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SECTION 16. OTHER INFORMATION

	Health	Flammability	Reactivity	Others
HMIS	2	1	0	
NFPA	2	1	0	

REVISION SECTION:

MSDS REVISION INDICATOR: New MSDS

Print Date: 12/19/2002

Supersedes MSDS, which is older than: 12/19/2002

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