



# MATERIAL SAFETY DATA SHEET

## MSDS Y-106 REVISION 3

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

#### COMBAT INSECT CONTROL SYSTEMS

C/O The Dial Corporation  
19001 N. Scottsdale Road  
Scottsdale, Arizona 85255-9672

Medical Emergencies: 1-888-689-9082  
Chemtrec: 1-800-424-9300 (24 Hours Daily)  
Other Information: 1-888-468-6673

PRODUCT: COMBAT® DATE OF ISSUE: March 4, 2009  
TRADE NAMES/SYNONYMS: Combat Plus Quick Kill Formula 1 Roach Baits  
Combat Small Roach Bait F.03  
CHEMICAL FAMILY: Insecticides  
EPA REG. NUMBER: 64240-33

### SECTION 2: HAZARD IDENTIFICATION

#### EMERGENCY OVERVIEW

**CAUTION:** This product is a food bait in a child resistant plastic station. Direct contact with eyes can cause irritation. Prolonged contact with skin may cause mild skin irritation. Refer to product label for additional precautions during product use. Keep out of reach of children. This product is toxic to fish and aquatic invertebrates. Not a fire hazard. Product is stable.

This product is labeled in accordance with guidelines set forth in the Federal Insecticide, Fungicide and Rodenticide Act. The use pattern and exposure in the workplace are generally not consistent with those experienced by consumers. The requirements of the Occupational Safety and Health Administration applicable to this Material Safety Data Sheet may differ from the requirements of the FD & C Act and as a result, this MSDS may contain additional health hazard information not pertinent to consumer use and not found on the product label.

#### REGULATORY STATUS

This material is considered to be hazardous under OSHA's Hazard Communication Standard (29 CFR 1900.1200). This MSDS should be retained and available for employees and other users of this product.

#### POTENTIAL HEALTH EFFECTS

**INHALATION:** Not a likely route of exposure. Irritating, in high concentration, to the respiratory tract (nose, throat, and lungs).  
**SKIN CONTACT:** Can cause mild skin irritation with prolonged contact.  
**EYE CONTACT:** Can cause mild-to-moderate eye irritation..  
**INGESTION:** Not a likely route of exposure. Ingestion of large amounts may cause some gastrointestinal discomfort including nausea, vomiting, abdominal pain, diarrhea, and lethargy.

**CHRONIC HEALTH EFFECTS:** Due to the nature and composition of this product no chronic health effects are anticipated.

**MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE:** No known health conditions are aggravated by exposure to this product.

#### POTENTIAL ENVIRONMENTAL EFFECTS

See Section 12: Ecological Information.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Based on our hazard evaluation, the following chemical substance(s) in this product have been identified as hazardous.

INGREDIENTCAS NUMBERPERCENT (w/w)

Fipronil

120068-37-3

0.03 %

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**SECTION 4: FIRST AID MEASURES**

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Call poison control center or doctor immediately for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**INHALATION:** Remove from exposure area to fresh air immediately. Keep affected person warm and at rest. Treat symptomatically and supportively. Contact physician or local poison control center. If breathing has stopped, give artificial respiration, and get medical attention immediately.

**SKIN CONTACT:** Rinse affected area with plenty of water until no evidence of product remains. Get medical attention if irritation persists.

**EYE CONTACT:** Immediately rinse eyes with plenty of water, occasionally lifting upper and lower lids, until no evidence of product remains. Get medical attention if pain or irritation persists.

**INGESTION:** Treat symptomatically and supportively. Maintain airway and respiration. If vomiting occurs, keep head below hips to prevent aspiration. Dilution by rinsing the mouth and giving water or milk to drink is generally recommended. If unconscious, the victim should not be given anything to drink. Contact physician or local poison control center.

**NOTE TO PHYSICIAN:** The physician's judgement should be used to control symptoms and clinical condition based on the individual reactions of the patient.

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**SECTION 5: FIRE FIGHTING MEASURES**

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**FLAMMABLE PROPERTIES**

OSHA FLAMMABILITY CLASSIFICATION: Not available

FLASH POINT: > 200°C (TCC)

UPPER FLAMMABILITY LIMIT: Not applicable

LOWER FLAMMABILITY LIMIT: Not applicable

AUTO-IGNITION TEMPERATURE: Not applicable

FLAME PROJECTION: Not applicable

FIRE AND EXPLOSION HAZARD: Negligible fire hazard when exposed to heat or flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon and oxides of nitrogen.

**EXTINGUISHING MEDIA**

Dry chemical, carbon dioxide (CO<sub>2</sub>) foam or water spray.

**PROTECTION OF FIREFIGHTERS**

In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit. Move container from fire area if you can do it without risk. Do not scatter spilled material with high-pressure water streams. Dike fire-control water for later disposal. Use agents suitable for type of surrounding fire. Avoid breathing hazardous vapors, keep upwind.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**PERSONAL PRECAUTIONS :**

Ventilate spill area if possible. Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8. Notify appropriate government, occupational health and safety and environmental authorities. Keep unnecessary people away; isolate hazard area and restrict entry. Ensure clean-up is conducted by trained personnel only.

**ENVIRONMENTAL PRECAUTIONS :**

This product is toxic to fish and aquatic invertebrates. This product should not be directly discharged into lakes, streams, ponds, estuaries, oceans, public water supplies, or other waters. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment washwater.

**METHODS FOR CONTAINMENT AND CLEAN UP**

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SMALL SPILLS: Sweep or scoop up and place into suitable clean, dry containers for reclamation or later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Sweep or scoop up. Recover in suitable containers for later disposal. Keep unnecessary people away from spill.

## SECTION 7: HANDLING AND STORAGE

### HANDLING:

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Avoid generating aerosols and mists. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available.

### STORAGE:

Store in a cool, dry, ventilated area out of reach of children and away from sources of heat, moisture, and incompatible substances. Store in suitable labeled containers. Store the containers tightly closed.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### WORKER EXPOSURE LIMITS

The following exposure limits exist for the ingredients listed below. The TLV-TWA is the Threshold Limit Value – Time Weighted Average from Rhone – Poulenc for 12-month daily exposure.

INGREDIENT	CAS NUMBER	EXPOSURE LIMIT
Fipronil	120068-37-3	TLV-TWA 0.1 mg/m <sup>3</sup> ; 0.032 mg/m <sup>3</sup>

ENGINEERING CONTROLS: Provide local exhaust or general dilution ventilation to keep potential exposure to airborne contaminants as low as possible.

RESPIRATOR: None required under normal use conditions. Use general ventilation to minimize exposure. Air contamination monitoring should be carried out where generation of vapors is likely to occur, to assure that the employees are not exposed to harmful concentrations of any of the above mentioned components. If respiratory protection is required, it must be based on the contamination levels found in the workplace, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

FOR FIRE FIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS: Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode. Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure demand or other positive-pressure mode.

CLOTHING: Protective clothing (impervious to liquids) is required where splashing of product may occur.

GLOVES: Chemical-resistant gloves are required where repeated or prolonged skin contact may occur.

EYE/FACE PROTECTION: Splash-proof safety glasses are required to prevent eye contact where splashing of product may occur.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Fipronil based food bait in a child resistant plastic station.		
ODOR/ODOR THRESHOLD:	Not available	PHYSICAL STATE:	Solid
pH (@ 25°C):	Not available	VAPOR DENSITY:	Not available
BOILING POINT:	Not available	VAPOR PRESSURE:	Not available
MELTING/FREEZING POINT:	60° C	FLASH POINT:	See Section 5.
FLAMMABLE PROPERTIES:	See Section 5.	SOLUBILITY IN WATER:	Insoluble
DENSITY/SPECIFIC GRAVITY:	1.27 g/ml	EVAPORATION RATE:	Not available
OCTANOL/WATER PARTITION COEFFICIENT (K <sub>ow</sub> ):	Not available		

## SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal ambient temperature (70°F, 21°C) and pressure (1 atm).

CONDITIONS TO AVOID: Avoid storing in direct sunlight, avoid extremes of temperature.

INCOMPATIBLE MATERIALS: Strong oxidizers and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products may include oxides of carbon.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous reactions do not occur under normal temperatures and pressures.

## SECTION 11: TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION SUMMARY: The use of this product by consumers is safe under normal and reasonable foreseen use. Direct contact with eyes can cause irritation. Prolonged contact with skin may cause mild skin irritation.

COMPONENT ANALYSIS: The following toxicity information is available for the product and/or for the hazardous ingredients when used as technical grade.

PRODUCT / INGREDIENT	LD50 / DRAIZE SCORE	TOXICITY / IRRITATION RATING
<b>ACUTE ORAL TOXICITY</b>		
Combat Plus Quick Kill Formula 1 Fipronil (active ingredient)	> 5,000 mg/kg (rat) 97 mg/kg (rat)	Non-hazardous Very Toxic
<b>ACUTE DERMAL TOXICITY</b>		
Combat Plus Quick Kill Formula 1 Fipronil (active ingredient)	> 2,000 mg/kg (rabbit) 354 mg/kg (rabbit)	Practically Non-Toxic Extremely Toxic
<b>ACUTE INHALATION TOXICITY</b>		
Combat Plus Quick Kill Formula 1 Fipronil (active ingredient)	> 5.0 mg/l 0.39 mg/l (rat)	Slightly Toxic Moderately Toxic
<b>EYE IRRITATION</b>		
Combat Plus Quick Kill Formula 1 Fipronil (active ingredient)		Slightly Irritating Moderately Irritating
<b>SKIN IRRITATION</b>		
Combat Plus Quick Kill Formula 1 Fipronil (active ingredient)		Practically Non-Irritating Slightly Irritating

SENSITIZATION: This product is not considered a skin or respiratory sensitizer.

CARCINOGENICITY: None of the ingredients in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the Occupational Safety and Health Administration (OSHA).

MUTAGENICITY: None of the ingredients in this product are known to cause mutagenicity.

REPRODUCTIVE/FETAL/DEVELOPMENTAL TOXICITY: None of the ingredients in this product are known as reproductive hazards.

TARGET ORGAN TOXICITY: None of the ingredients in this product are known to have target organ toxicity.

EPIDEMIOLOGICAL INFORMATION: None of the ingredients in this product are known to have health-related information in working populations.

## SECTION 12: ECOLOGICAL INFORMATION

The environmental toxicity of this product has not been evaluated. The active ingredient Fipronil is toxic birds, fish, and aquatic invertebrates. The following toxicity information is available for the hazardous ingredient when used as technical grade.

INGREDIENT	LC50 / ED50 / SPECIES	TOXICITY RATING
AQUATIC VERTEBRATES (FISH) Fipronil (active ingredient)	96h LC50: 0.248 mg/l (Rainbow trout) (flow-through test)	Very Toxic
AQUATIC INVERTEBRATES Fipronil (active ingredient)	48h EC50: 0.248 mg/l (Daphnia magna) flow-through test)	Very Toxic

**ENVIRONMENTAL FATE:**

No environmental fate data exists for the product.

**PERSISTENCE AND DEGRADABILITY:**

The persistence and degradability of this product has not been determined. Fipronil is degraded to Fipronil amide by hydrolysis with a half-life of 28 days (pH 9 and 25°C).

Water: In water, Fipronil undergoes photolysis with a half-life of 0.151 days (0.9 mg/l at pH 5 and 25°C). Fipronil is also metabolized in water under anaerobic conditions with half-lives of 116-130 days.

Soil: In loam soil (46% sand, 23% clay, 31% silt) containing 1.73% organic matter, Fipronil undergoes photolysis with a half-life of 34 days (224 mg/kg at pH 6.7 and 25°C). Fipronil is also metabolized in soil under aerobic conditions with half-lives of 122-128 and 308-342 days in sandy loam (1.7% organic matter and pH 7.8 at 25°C) and sand (3.3% organic matter and pH 6.1 at 25°C), respectively. The metabolite under these conditions is 5-amino-3-cyano-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-trifluoromethanesulfonylpyrazole.

**BIOACCUMULATION POTENTIAL:**

The bioaccumulation potential of this product has not been determined.

**MOBILITY:**

The mobility of this product (in soil and water) has not been determined.

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## SECTION 13: DISPOSAL CONSIDERATIONS

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Pesticide wastes can be acutely hazardous. 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.

WASTE NUMBER AND DESCRIPTION: Not Applicable, not regulated.

DISPOSAL CONSIDERATIONS: This product is not a RCRA hazardous waste and can be disposed of in accordance with federal, state and local regulations.

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## SECTION 14: TRANSPORT INFORMATION

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**GROUND TRANSPORT**

DOT Hazard Class: Not regulated

DOT Proper Shipping Name: Insecticide, non-toxic, solid – Not Restricted.

UN/NA Number: Not applicable

Packing Group: Not applicable

Shipping Label Information: Not applicable

**AIR TRANSPORT (ICAO/IATA)**

ICAO/IATA Hazard Class: Not regulated

ICAO/IATA Proper Shipping Name: Not applicable

**MARINE TRANSPORT (IMDG/IMO)**

IMDG/IMO Hazard Class: Not regulated

IMDG/IMO Proper Shipping Name: Not applicable

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## SECTION 15: REGULATORY INFORMATION

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**UNITED STATES:**

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

The Occupational Safety and Health Administration requires Material Safety Data Sheets to provide any hazards that may be associated with the product, and make this information available in the workplace. Since the use pattern and

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exposure in the workplace are generally not consistent with those experienced by consumers, this MSDS may contain additional health hazard information not pertinent to consumer use.

EPA - SARA TITLE III SECTION 313: Not applicable - Consumer product.

EPA CERCLA/SARA TITLE III SUPERFUND AMENDMENT AND REAUTHORIZATION ACT:

This product contains no CERCLA/SARA Title III materials.

TSCA: This product is a registered pesticide and is exempted from listing on the U.S. Toxic Substances Control Act (TSCA) chemical substance inventory.

FIFRA: EPA Registration Number 64240-33  
EPA Establishment Number 071106-GA-001

**STATE REGULATIONS**

CALIFORNIA PROPOSITION 65: This product does not contain substances listed under California Proposition 65.

**CANADA:**

This product is not registered for sale or distribution in Canada.

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**SECTION 16: OTHER INFORMATION**

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DISCLAIMER: The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, The Dial Corporation makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, The Dial Corporation will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representations, or warranties, either expressed or implied of merchantability, fitness for a particular purpose or of any other nature is made hereunder with respect to the information set forth herein or to the product to which the information refers.

NFPA RATINGS (Scale 0-4, where 4=high degree of hazard): HEALTH=1 FLAMMABILITY=1 REACTIVITY=0

HMIS RATINGS (Scale 0-4, where 4=severe hazard): HEALTH=1 FLAMMABILITY=1 REACTIVITY=0

MSDS CREATION DATE: 11/14/04

SUPERSEDES: 07/26/07, Ver. 2

REVISION DATE: 03/04/09

REVISION: Update Company Information.