



# MATERIAL SAFETY DATA SHEET

## MSDS Y-113 REVISION 1

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

#### COMBAT INSECT CONTROL SYSTEMS

C/O The Dial Corporation  
Center For Innovation  
15101 N. Scottsdale Rd  
Scottsdale, Arizona 85254-9934

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: July 26, 2007  
TRADE NAMES/SYNONYMS: Combat Roach Killing Gel 1  
Combat Plus Roach Killing Gel 1  
Combat Roach Gel  
CHEMICAL FAMILY: Insecticides  
EPA REG. NUMBER: 64240-35

### SECTION 2: HAZARD IDENTIFICATION

#### EMERGENCY OVERVIEW

**CAUTION:** This product is a thick brown gel with a sweet odor. Direct contact with eyes can cause moderate irritation. Harmful if absorbed through the skin or swallowed. Prolonged contact with skin can cause mild irritation. Refer to product label for additional precautions during product use. Keep out of reach of children. This product is toxic to fish. 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:** Harmful if absorbed through the skin. Can cause skin irritation with prolonged contact.  
**EYE CONTACT:** Can cause moderate eye irritation.  
**INGESTION:** May be harmful if swallowed. 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 2: COMPOSITION / INFORMATION ON INGREDIENTS

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

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INGREDIENTCAS NUMBERPERCENT (w/w)

Hydramethylnon

85-29-4

2.15 %

**SECTION 4: FIRST AID MEASURES**

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.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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

**SECTION 5: FIRE FIGHTING MEASURES****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.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****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 could be toxic to fish. This product should not be directly discharged into lakes, streams, ponds, estuaries, oceans, public water supplies, or other waters. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

**METHODS FOR CONTAINMENT AND CLEAN UP:**

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SMALL SPILLS: Contain and absorb with sand or other absorbent material and place into containers for later disposal. Wash site of spillage thoroughly with water. LARGE SPILLS: Dike far ahead of spill to prevent further movement. Recover by pumping or by using a suitable absorbent material and place into containers for later disposal. No smoking, flames or flares in hazard area.

## SECTION 7: HANDLING AND STORAGE

### HANDLING:

Do not get in eyes, on skin, on clothing. Do not take internally. Wash hands thoroughly after handling. 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:

Keep exposed gel away from open foods and food contact surfaces. 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 PEL-TWA is the Permissible Exposure Limit – Time Weighted Average from American Cyanamid.

INGREDIENT	CAS NUMBER	EXPOSURE LIMIT
Hydramethylnon	67485-29-4	TLV-TWA 1.4 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. Wash contaminated clothing before re-wearing.

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:	Thick brown gel, sweet odor.		
ODOR/ODOR THRESHOLD:	Not available	PHYSICAL STATE:	Gel
pH (@ 25°C):	Not available	VAPOR DENSITY:	Not available
BOILING POINT:	Not available	VAPOR PRESSURE:	Not available
MELTING/FREEZING POINT:	Not available	FLASH POINT:	See Section 5.
FLAMMABLE PROPERTIES:	See Section 5.	SOLUBILITY IN WATER:	Insoluble
DENSITY/SPECIFIC GRAVITY: 8.75 – 9.58 lb/gal		EVAPORATION RATE:	Not available

**COMBAT ROACH KILLING GEL 1**  
OCTANOL/WATER PARTITION COEFFICIENT (K<sub>ow</sub>): Not available  
VISCOSITY (Dynamic): Not applicable

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## 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 moderate irritation. Harmful if absorbed through the skin or swallowed. Prolonged contact with skin can cause mild 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 Roach Killing Gel 1	> 5,000 mg/kg (rat)	Non-hazardous
Hydramethylnon (active ingredient)	1,193 mg/kg (rat)	Moderately Toxic
<b>ACUTE DERMAL TOXICITY</b>		
Combat Roach Killing Gel 1	> 2,000 mg/kg (rabbit)	Practically Non-Toxic
Hydramethylnon (active ingredient)	> 5,000 mg/kg (rat)	Non-Hazardous
<b>ACUTE INHALATION TOXICITY</b>		
Combat Roach Killing Gel 1	> 20.0 mg/l	Non-Hazardous
Hydramethylnon (active ingredient)	> 5.0 mg/l	Slightly Toxic
<b>EYE IRRITATION</b>		
Combat Roach Killing Gel 1		Slightly Irritating
Hydramethylnon (active ingredient)		Moderately Irritating
<b>SKIN IRRITATION</b>		
Combat Roach Killing Gel 1		Practically Non-Irritating
Hydramethylnon (active ingredient)		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: Hydramethylnon is currently listed under California Proposition 65 for developmental effects in males.

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. This product could be toxic to fish. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

**ENVIRONMENTAL FATE:**

No environmental fate exists for the product.

**PERSISTENCE AND DEGRADABILITY:**

The persistence and degradability of this product has not been determined. Hydramethylnon degrades rapidly in sunlight with a half-life of 1 hour in water and 6 days in soil.

Water: In water, Hydramethylnon undergoes photolysis with a half-life of 0.0291-0.0417 days (0.25 mg/l at pH 7 and 25-27°C). The degradates under these conditions are 4H-pyrimido-[2-1,C] as-triazio-4-one-1,6,7,8-tetrahydro-7,7-dimethyl-3-[p-(trifluoro-methyl)-styryl and 1,5-bis(alpha, alpha, alpha-tri-fluoro-p-tolyl)-1,4,-pentadiene-3-one. Hydramethylnon is also metabolized in water under anaerobic conditions with half-lives of 455-552 days.

Soil: In loam soil (51.2% sand, 12.3% clay, 36% silt) containing 1.87% organic matter, Hydramethylnon undergoes biphasic photolysis with a half-life of 4 and 35 days for the first and second phase, respectively (pH 5.8 and 25°C). Hydramethylnon is also metabolized in soil under aerobic conditions with half-lives of 375-391 days in sandy loam (54% sand, 18% clay, 28% silt) containing 2.1% organic matter (pH 6.1 and 25°C).

**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.

**SECTION 13: DISPOSAL CONSIDERATIONS**

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.

**SECTION 14: TRANSPORT INFORMATION****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

**SECTION 15: REGULATORY INFORMATION****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 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 64240-35  
EPA Establishment Number 071106-GA-001

**STATE REGULATIONS**

CALIFORNIA PROPOSITION 65: Hydramethylnon is currently 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=2 FLAMMABILITY=1 REACTIVITY=0

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