

MATERIAL SAFETY DATA SHEET



Emergency Phone: 800-992-5994
Dow AgroSciences LLC
Indianapolis, IN 46268

MACH 2 1.5 G INSECTICIDE

Effective Date: 3/19/02
Product Code: 55570
MSDS: 007361

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Mach 2 1.5 G Insecticide

COMPANY IDENTIFICATION:

Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268-1189

2. COMPOSITION/INFORMATION ON INGREDIENTS:

Halofenozide: 4-chloro-2-Benzoyl-2-(1,1-dimethyl-ethyl)hydrazide	CAS # 112226-61-6	1.5%
Inert Ingredients, Total		98.5%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

3. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW

Hazardous Chemical. Tan granule with a wood odor. May cause eye and skin irritation due to mechanical effects. Based on the ROHMID MSDS, the dermal LD₅₀ for rats is >2000 mg/kg, the oral LD₅₀ for rats is 2850 mg/kg, and the inhalation LC₅₀ for rats is >2.7 mg/L. Toxic to avian and aquatic invertebrates.

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POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: Solid or dust may cause irritation or corneal injury due to mechanical action.

SKIN: Prolonged contact may cause slight skin irritation with local redness. May cause skin irritation due to mechanical abrasion. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Did not cause allergic skin reactions when tested in guinea pigs. Based on the ROHMID MSDS, the dermal LD₅₀ for rats is >2000 mg/kg.

INGESTION: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Based on the ROHMID MSDS, the oral LD₅₀ for rats is 2850 mg/kg.

INHALATION: Vapors are unlikely due to physical properties. Dust may cause irritation of the upper respiratory tract (nose and throat) and lungs. Based on the ROHMID MSDS, the inhalation LC₅₀ is >2.7 mg/L.

SYSTEMIC (OTHER TARGET ORGAN EFFECTS): No relevant information found.

CANCER INFORMATION: No relevant information found.

TERATOLOGY (BIRTH DEFECTS): No relevant information found.

REPRODUCTIVE EFFECTS: No relevant information found.

4. FIRST AID:

EYES: Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes and then continue flushing for several minutes. Only mechanical effects expected.

SKIN: Wash skin with plenty of water.

INGESTION: No emergency medical treatment necessary.

INHALATION: Move person to fresh air; if effects occur, consult a physician.

NOTE TO PHYSICIAN: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES:

FLASH POINT: Not applicable
METHOD USED: Not applicable

FLAMMABLE LIMITS:

LFL: Not applicable
UFL: Not applicable

EXTINGUISHING MEDIA: Use water spray, alcohol resistant foam, dry chemical, or carbon dioxide to extinguish fires.

FIRE & EXPLOSION HAZARDS: Use water spray to cool containers exposed to fire. Dike and collect water used to fight fire. Remain upwind and avoid breathing smoke.

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FIRE-FIGHTING EQUIPMENT: Wear self-contained breathing apparatus (NIOSH approved or equivalent) and full protective equipment.

6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS/LEAKS: Sweep small spills of material into a covered container for proper disposal. If possible, reuse the material for its intended purpose. Rinse the spill area and any tools or implements several times with soapy water. Contain and absorb this rinsate with inert absorbents such as granular clay or sawdust, and place into the same covered container as the spilled material. Report large spills to Dow AgroSciences at 800-992-5994.

7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool, dry, well-ventilated area. Prevent cross contamination with other materials. Store in original container and out of the reach of children. Open dumping is prohibited. Avoid temperature extremes during storage; ambient temperature preferred for storage. Do not contaminate water, food, or livestock feed by storage or disposal. Keep container tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

EXPOSURE GUIDELINE: None established.

ENGINEERING CONTROLS: Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

RESPIRATORY PROTECTION: In dusty or misty atmospheres, use a NIOSH approved particulate respirator.

SKIN PROTECTION: Cloth gloves should provide adequate protection for conditions.

EYE PROTECTION: Use safety glasses. If there is a potential for exposure to particles, which could cause eye discomfort, wear chemical goggles.

APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE: Tan granule

ODOR: Wood

BOILING POINT: Not applicable

MELTING POINT: Not applicable

VAPOR PRESSURE: Not applicable

BULK DENSITY: 27-31 lb/ft

pH: 5.6

VISCOSITY: Not applicable

EXPLOSIVE PROPERTIES: Not applicable

OXIDIZING PROPERTIES: Slight reaction with reducing agents

SOLUBILITY: Not soluble

10. STABILITY AND REACTIVITY:

STABILITY: (Conditions to Avoid) Stable under normal storage conditions.

INCOMPATIBILITY: (Specific Material to Avoid) None known.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION:

MUTAGENICITY: No relevant information found.

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE:

MOVEMENT & PARTITIONING:

Based largely or completely on information for the active ingredient.

Bioconcentration potential is moderate (BCF is between 100 and 3000 or the Log Pow between 3 and 5).

Expected to be relatively immobile in soil (Koc is >5000).

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ECOTOXICOLOGY:

Based largely or completely on information for the active ingredient.
Material is moderately toxic to aquatic invertebrates on an acute basis (LC_{50}/EC_{50} is between 1 and 10 mg/L).
Material is practically non toxic to birds on an acute basis (LD_{50} is >2000 mg/kg).
Material is slightly toxic to birds on a dietary basis (LC_{50} is between 1001 and 5000 ppm).

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: To avoid disposal, all attempts should be made to use this product completely, in accordance with its registered use. If this is not possible, handle with care and dispose of in a safe manner. Empty bags or liners may retain some product residue. **DO NOT REUSE.** Dispose of the bag in a safe manner. Follow all applicable community, national or regional regulations regarding waste management methods.

14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION INFORMATION:

FOR ALL PACKAGE SIZES AND MODES OF TRANSPORTATION: This material is not regulated.

15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A reactive hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: This product is not known to contain any substances subject to the disclosure requirements of

New Jersey
Pennsylvania

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Health	2
Flammability	0
Reactivity	1

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

16. OTHER INFORMATION:

MSDS STATUS: New
Reference: DR-0372-9213
Document Code: D03-158-001

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Dow AgroSciences for Further Information.