

MATERIAL SAFETY DATA SHEET



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

PYTHON* WDG HERBICIDE

Effective Date: 1/31/03
Product Code: 57008
MSDS: 005531

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Python* WDG Herbicide

COMPANY IDENTIFICATION:

Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268-1189

2. COMPOSITION/INFORMATION ON INGREDIENTS:

Flumetsulam:	CAS #098967-40-9	78-82%
N-(2,6-Difluorophenyl)- 5-Methyl(1,2,4)Triazolo(1,5-A) Pyrimidine-2-Sulfonamide		
Inert Ingredients		18-22%

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. Brown Granule. May cause eye irritation. LD₅₀ for skin absorption in rabbits is >2000 mg/kg. Oral LD₅₀ for rats is >5000 mg/kg. Material is practically non-toxic to aquatic organisms and wildlife.
EMERGENCY PHONE NUMBER: 800-992-5994

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

EYE: May cause slight temporary eye irritation. Corneal injury is unlikely.

SKIN: Prolonged contact is essentially non-irritating to skin. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD₅₀ for skin absorption in rabbits is >2000 mg/kg.

INGESTION: Very low toxicity if swallowed. The oral LD₅₀ for rats is >5000 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than that may cause injury.

INHALATION: Prolonged exposure is not expected to cause adverse effects.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: In animals, effects have been reported on the following organs: kidney and liver.

CANCER INFORMATION: Did not cause cancer in laboratory animals.

TERATOLOGY (BIRTH DEFECTS): Birth defects are unlikely. Even exposures having an adverse effect on the mother should have no effect on the fetus.

REPRODUCTIVE EFFECTS: In animal studies, did not interfere with reproduction.

4. FIRST AID:

EYE: Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

SKIN: Wash skin with plenty of water.

INGESTION: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

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 determined (expected to be >200°F based on components).

FLAMMABLE LIMITS: Not applicable

EXTINGUISHING MEDIA: Use water fog, foam, CO₂, or dry chemical.

FIRE AND EXPLOSION HAZARDS: Fire and explosion potential not determined but expected to be low.

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FIRE-FIGHTING EQUIPMENT: Wear positive-pressure, self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS/LEAKS: Sweep up small spills and place in plastic bags for disposal. Report large spills to Dow AgroSciences on 800-992-5994.

7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Avoid eye contact. Do not take internally. Wash thoroughly after handling and before eating or smoking. Store in original container in a dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

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

EXPOSURE GUIDELINE:

Flumetsulam: Dow AgroSciences Industrial Hygiene Guide is 10 mg/M³.

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline.

SKIN PROTECTION: No precautions other than clean body-covering clothing should be needed.

EYE/FACE PROTECTION: Use safety glasses.

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

9. PHYSICAL AND CHEMICAL PROPERTIES:

BOILING POINT: Not applicable
SOLUBILITY IN WATER: Disperses in water
SPECIFIC GRAVITY: Not applicable
VAPOR PRESSURE: Not determined
VAPOR DENSITY: Not determined
APPEARANCE: Brown granules
ODOR: No distinctive odor

10. STABILITY AND REACTIVITY:

STABILITY: (CONDITIONS TO AVOID) Should be stable at normal temperatures and storage conditions.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) None reasonably foreseeable.

HAZARDOUS DECOMPOSITION PRODUCTS: If product is involved in fire, oxides of nitrogen, oxides of sulfur, and halogen derivatives may be formed.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION:

MUTAGENICITY: In-vitro and animal mutagenicity studies were negative.

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL FATE:

MOVEMENT & PARTITIONING:

Bioconcentration potential is low (BCF <100 or Log Pow <3).

Log octanol/water partition coefficient (Log Pow) is estimated using a structural fragment method to be -0.288. Potential for mobility in soil is slight (Koc between 2000 and 5000).

Soil organic carbon/water partition coefficient (Koc) is estimated to be 3100.

Henry's Law Constant (H) is estimated to be 4.76E-15 atm-M³/mole.

DEGRADATION & PERSISTENCE:

Theoretical Oxygen Demand (ThOD) is calculated to be 2.02 p/p.

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ECOTOXICOLOGY: Material is practically non-toxic to aquatic organisms on an acute basis ($LC_{50} > 100$ mg/L in most sensitive species).
Acute LC_{50} for bluegill (*Lepomis macrochirus*) is greater than water solubility, 300 mg/L.
Acute LC_{50} for water flea (*Daphnia magna*) is greater than water solubility, 300 mg/L.
Acute LC_{50} for grass shrimp (*Palaemonetes pugio*) is >349 mg/L.
Acute EC_{50} for shell deposition inhibition in Eastern oyster (*Crassostrea virginica*) is >173 mg/L.
Acute LC_{50} for rainbow trout (*Oncorhynchus mykiss*) is greater than water solubility, 300 mg/L.
Acute LC_{50} for fathead minnow (*Pimephales promelas*) is greater than water solubility, 300 mg/L.
Acute LC_{50} for Atlantic silverside (*Menidia menidia*) is greater than water solubility, 300 mg/L.
Material is practically non-toxic to birds on an acute basis (LD_{50} is >2000 mg/kg).
Material is practically non-toxic to birds on a dietary basis (LC_{50} is >5000 ppm).
Acute oral LD_{50} for bobwhite (*Colinus virginianus*) is >2250 mg/kg.
Dietary LC_{50} for birds is >5620 ppm (both mallard and bobwhite).
Acute oral LD_{50} in honeybee (*Apis mellifera*) is >100 µg/bee.
Maximum acceptable toxicant concentration (MATC) is >197 mg/L in fathead minnow.
Growth inhibition EC_{50} for diatom (*Navicula sp*) is 51.1 mg/L. Growth inhibition EC_{50} for blue-green alga (*Anabaena flow-aquae*) is 0.167 mg/L.
Growth inhibition EC_{50} in duckweed (*Lemna sp*) is 5.1 µg/L.
Growth inhibition EC_{50} for green alga (*Selenastrum capricornutum*) is 4.93 µg/L.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed 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.

14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION INFORMATION:

This material is not regulated for transportation.

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

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

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STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

<u>Chemical Name</u>	<u>CAS Number</u>	<u>List</u>
Proprietary Ingredient	Proprietary	PA1

PA1=Pennsylvania Hazardous Substance (present at greater than or equal to 1.0%).

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: Revised sections: 3, 4, 8, 12, & 14
Reference: DR-0238-5651
Replaces MSDS dated: 05/18/99
Document Code: D03-039-176
Replaces Document Code: D03-039-175

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