



For Use in the United States Only
Material Safety Data Sheet

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R-3

NOTE TO END-USERS: This MSDS is being provided to all interested persons in accordance with federal and state right-to-know laws. Precautionary Statements, First Aid Statements and Directions for Use of this product by end-users are contained on the product label and must be followed at all times.

IDENTIFICATION

Trade Name: ADEPT™

CAS Number: 35367-38-5 (active)

Chemical Name:

Chemical Family: Amide

N-[[[4-chlorophenyl] amino] carbonyl]-2-6-difluorobenzamide 25%

Inerts: 75%

Common Name: Diflubenzuron

SPECIAL REGULATORY HAZARDS

<u>Ingredient</u>	<u>CAS No.</u>	<u>Exposure Limit</u>	<u>OSHA (1910.1200)</u>	<u>EEC*</u>
Diflubenzuron	35387-38-5	ND	Target organ effects	Possible risk of irreversible effects
Kaolin Clay	1332-58-7	10 mg/m ³ (OSHA, ACGIH)	Nuisance particulate	NA

Hazard assessment based on available data.

Transportation: IMO Hazard Class: 9, Miscellaneous, ID. No.; UN3077 Marine Pollutant
DOT/IATA/ICAO: Not Regulated

PHYSICAL DATA

Appearance and Odor: White powder; slight odor

Solubility: 1ppm in water @ 20°C

Specific Gravity (H₂O=1): ND

Vapor Pressure @ 20°C: NA

Melting Point: ND

Vapor Density (Air = 1): NA

Boiling Point: NA

Volatility @ 70°F: Low

Other Data: NA

FIRE AND EXPLOSION HAZARD DATA

Flash Point: ND

Autoignition Temperature: ND

Extinguishing Media: Water spray, dry chemical.

Flammable Limits: ND

Special Fire Fighting Procedures: Protect against inhalation of combustion products.

Unusual Hazards: May form explosive dust-air mixtures.

REACTIVITY DATA

Stability: Stable at ambient temperatures and pressures.

Incompatibility: None identified.

Decomposition Products: Oxides of nitrogen, HCl and HF under burning conditions.

NA = Not Applicable

ND = Not Determined

* European Economic Community

Uniroyal makes no representation or warranty with respect to the information in this Material Safety Data Sheet. The information is however, as of this date provided, true and accurate to the best of Uniroyal's knowledge. This list of information is not intended to be all inclusive. Actual conditions of use and handling may require considerations of information other than, or in addition to, that which is provided herein.

SPECIAL PROTECTION INFORMATION

Engineering Controls: Sufficient ventilation to minimize dust exposure. Protect closed handling systems against possible dust explosions. Avoid dust accumulation on building or equipment surfaces.

Personal Protection Equipment: Avoid all personal contact. Observe good personal hygiene. Chemical resistant gloves, protective clothing and eye protection should be worn when handling. Launder clothing before reuse. In the absence of adequate ventilation, use NIOSH-certified **respiratory protection**. Applicators and other handlers must wear a long sleeved shirt and long pants; shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

NOTE TO END-USERS: *The employee protection recommendations on this MSDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.*

STORAGE, SPILLS AND DISPOSAL INFORMATION

Storage: Store in a dry location.

Spills: Vacuum up to avoid creating dust. Transfer into secure containers for proper disposal. Use personal protective equipment as outlined above.

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

Environmental Information: This pesticide is extremely toxic to crab, shrimp and other aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark, except under the forest canopy when used to control forest pests. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

DIFLUBENZURON TECHNICAL

96 hr LC50 values range from 38-165 ppm in a number of aquatic species.

Redwing Blackbird: Oral LD50 -3.76 g/kg

These data indicate that Diflubenzuron is not toxic to fish and birds.

Diflubenzuron is extremely toxic to aquatic invertebrates.

HEALTH RELATED DATA

SPECIFIC HAZARDS: Contact with skin or eyes may cause irritation. Prolonged excessive exposure may cause methemoglobinemia. The very low acute toxicity suggests this is not a significant adverse effect. Chronic inhalation may cause lung damage. Individuals with respiratory problems should avoid inhalation exposure.

Primary Route(s) of Entry: Inhalation, skin absorption.

First Aid Procedures: **IF IN EYES:** Flush with water for 15 minutes. Get medical attention if necessary.

IF ON SKIN: Wash thoroughly with soap and water.

IF INHALED: Remove to fresh air.

IF INGESTED: Drink 2 glasses of water. Get medical attention.

TOXICOLOGY INFORMATION:

Oral toxicity: LD50 (rats) - >40 g/kg

Dermal toxicity: LD50 (rabbits) - >20 g/kg

Inhalation toxicity: LC50 (rats) - >3.5 mg/L

These data are for Diflubenzuron Technical:

Irritation: eye (rabbits) - slight to moderate

skin (rabbits) - slight

Sensitization: skin (guinea pigs) - negative

21 day rabbit dermal study: Doses of 20, 500 and 1000 mg/kg/day. Effects seen on RBC and methemoglobin levels. NOEL = 20 mg/kg/day.

1 year dog feeding study: Doses of 2, 10, 50 and 250 mg/kg/day. Effects seen on body weight, RBC, methemoglobin and sulfhemoglobin levels and liver and spleen weights. NOEL = 2 mg/kg/day.

2 year rat feeding study: Doses of 8, 31, 125 and 500 mg/kg/day. Effects seen on body weight, RBC, methemoglobin and sulfhemoglobin levels, liver and spleen weights and histopathology. NOEL = <8 mg/kg/day. A chronic feeding study at doses up to 8 mg/kg/day demonstrated a NOEL = 2 mg/kg/day.

Mouse oncogenicity study: Doses of 2, 11, 57, 286 and 1429 mg/kg/day. No increase in tumor incidence.

Rat reproduction study: Doses of 0.5, 1, 2 and 8 mg/kg/day. No adult or fetal effects. NOEL = 8 mg/kg/day. An additional study demonstrated a reproductive NOEL = >5 g/kg/day.

Rabbit teratology study: Doses of 1, 2 and 4 mg/kg/day. No effects. An additional study demonstrated a maternal and developmental NOEL = >1 g/kg/day.

Rat teratology study: Doses of 1, 2 and 4 mg/kg/day. No effects. An additional study demonstrated a maternal and developmental NOEL = >1 g/kg/day.

Mutagenicity: Negative in the following assays: Ames reverse mutation, *S. cerevisiae* point mutation, Mouse lymphoma, Mouse dominant lethal, Balb/3T3 Transformation, Human WI-38 UDS, *B. subtilis* recombination, CHO Chromosome aberration, Mouse micronucleus.