



MATERIAL SAFETY DATA SHEET

ADEPT®

Version: 1.4
Date of Issue: 06/26/2007
Date printed: 01/24/2009

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ADEPT®

Chemical name: Diflubenzuron

Use of substance/preparation: Insect Growth Regulator

Supplier: Chemtura Corporation
199 Benson Road
Middlebury, CT 06749 USA

Emergency telephone number: CHEMTREC (24 hours) 800-424-9300
Chemtura Corporation Emergency Response (24 hours) 800-292-5898

Environmental, Health and Safety Department: 866-430-2775

Prepared by Product Safety Department Date of Issue: 06/26/2007
(US) +1 866-430-2775
(EU) +44 (0) 1753.603.000
Email: MSDSRequest@chemtura.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	% BY WEIGHT
Diflubenzuron CAS# 35367-38-5	25
Dispersant CAS# Trade secret	< 5
Sodium alkyl sulfate CAS# Trade secret	< 5



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Filler
CAS# Trade secret

65.6

Ingredients not precisely identified are non-hazardous and/or proprietary.

4. FIRST AID MEASURES

Swallowing

Call a 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.

Inhalation

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Skin contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact

Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

5. FIRE-FIGHTING MEASURES

Flash point: 230 °F 110 °C
Autoignition temperature: > 110 °C

Hazardous combustion products

Irritating fumes.
Oxides of carbon.
Oxides of nitrogen.

Special fire fighting procedures

Do not discharge extinguishing waters into streams, rivers and lakes.

Special protective equipment for firefighters

Body covering protective clothing, full "turn-out" gear.
Self-contained breathing apparatus.

Extinguishing media

Suitable:

- CO2
- dry powder
- foam
- water fog

Unsuitable: - water spray

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear suitable protective equipment.



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Environmental precautions

Prevent from entering sewer system, surface water or soil., May be harmful to aquatic life.

Methods for cleaning up

Sweep up and collect in a suitable container for disposal.

7. HANDLING AND STORAGE

HANDLING

Handling precautions

Avoid dust formation., Use only with adequate ventilation.

Other precautions

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

Storage requirements

Store in a cool, dry place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

<u>Component</u>	<u>Country</u>	<u>Type</u>	<u>Value</u>	<u>Remark</u>
Filler		ACGIH - respirable dust	2 mg/m3	8 hours
<u>Component</u>	<u>Type</u>	<u>Value</u>		<u>Remark</u>
Particulates not otherwise regulated	TWA, OSHA	15.0 mg/m3		Total dust
	TWA, OSHA	5.0 mg/m3		Respirable fraction
	TWA - ACGIH	10.0 mg/m3		Total inhalable dust
	TWA - ACGIH	3.0 mg/m3		Respirable fraction

PERSONAL PROTECTION

Respiratory protection

In case of occurrence of dust respiratory protective equipment required.

Hand protection / protective gloves

Chemical resistant protective gloves

Eye protection

Safety glasses with side shields.

Skin protection

Wear protective clothing, such as long sleeves to minimize skin contact.



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ENGINEERING CONTROLS

Ventilation

Local exhaust suggested to prevent dust buildup.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical state	Powder
Color	White to yellow
Odor	Practically odorless

OTHER PROPERTIES

Boiling point	Not available
Melting point	Not available
pH	(approximately) 8 Concentration: 10 g/l
Density	2.09 g/cm ³ at 25 °C
Bulk density	0.3 g/cm ³
Vapor pressure	
Solubility in water	Dispersible
Flash point	>230 °F 110 °C
Thermal decomposition	NONE
Autoignition temperature	> 110 °C
Dynamic viscosity	Not applicable
Oxidizing properties	Not applicable

10. STABILITY AND REACTIVITY

Stability: This product is stable under normal storage and handling conditions.

Incompatible materials:

Oxidizing agents.
Strong acids.
Strong bases.



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Hazardous combustion products:

Irritating fumes.
Oxides of carbon.
Oxides of nitrogen.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

SWALLOWING

Test results

Acute toxicity: LD50 Rat
Result: > 10,000 mg/kg

SKIN ABSORPTION

Test results

Acute toxicity: LD50 - Rat
Result: > 20,000 mg/kg

INHALATION

Test results

Acute toxicity: LC50 - Rat
Result: > 3.52 mg/l
Exposure time: 4 h

SKIN CONTACT

Test results

Skin irritation: Species: Rabbit
Classification: Not irritating

EYE CONTACT

Test results

Eye irritation: Species: Rabbit
Result: Mild irritation

SENSITIZATION

Test results:

Species: - Guinea pigs
Result: Non sensitizing.

MUTAGENICITY

Assessment: Negative

CARCINOGENICITY

Assessment: Negative

TOXICITY TO REPRODUCTION/FERTILITY

Assessment: Negative

12. ECOLOGICAL INFORMATION

Component ecotoxicology Diflubenzuron	LC50 - Rainbow trout (Oncorhynchus mykiss) Result: > 0.2 mg/l
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<u>Acute toxicity fish:</u>	Exposure time: 96 h
<u>Component ecotoxicology</u> Diflubenzuron <u>Acute toxicity fish:</u>	LC50 - Zebra fish (Brachydanio rerio) Result: > 0.2 mg/l Exposure time: 96 h
<u>Component ecotoxicology</u> Diflubenzuron <u>Aquatic toxicity to plants:</u>	IC50 - Selenastrum capricornutum Result: > 0.3 mg/l Exposure time: 72 h
<u>Component ecotoxicology</u> Diflubenzuron <u>Acute toxicity to aquatic invertebrates:</u>	EC50 - Water flea (Daphnia magna) Result: 0.0071 mg/l Exposure time: 48 h

13. DISPOSAL CONSIDERATIONS

General: Dispose of in accordance with appropriate Federal, State, and local regulations., Avoid discharge to sewers and natural waters.

14. TRANSPORT INFORMATION

DOT Classification

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Diflubenzuron)
Class: 9
UN ID #: UN3077
Packing group: III

Not regulated by ground or rail if shipped or transported in container less than 400 kg.

IMDG Classification

Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
Class: 9
Subsidiary risk: marine pollutant
UN ID #: UN 3077
Packing group: III
Technical description (Diflubenzuron)

ICAO Classification

Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
Class: 9
UN ID #: UN 3077
Packing group: III
Technical description (Diflubenzuron)

Only regulated by air Into, Out of or Within the United States in containers 881.8 lbs (400 kg) or greater.



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15. REGULATORY INFORMATION

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RQ's) in 40CFR302.4.

Components present in this product at a level which could require reporting under the statute are:

**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

Chemical name	CAS#	Max weight %
Diflubenzuron	35367-38-5	25.00

New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)

Chemical name	CAS#	New Jersey TS Number
Diflubenzuron	35367-38-5	
Dispersant	Trade secret	CHEM469
Sodium alkyl sulfate	Trade secret	CHEM470
Filler	Trade secret	CROM400

EPA Hazard Categories (SARA 311, 312): None

California Proposition 65

**** NONE ****

CHEMICAL INVENTORY

Canada: PCP# 13816

16. OTHER INFORMATION

RECOMMENDED USES AND RESTRICTIONS: 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.



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STP	Standard temperature and pressure
W/W	Weight/Weight 0 (HMIS)
1 (HMIS)	Slight hazard
2 (HMIS)	Moderate hazard
3 (HMIS)	Serious hazard
4 (HMIS)	Severe hazard
X (HMIS)	Personal protection rating to be supplied by user depending on use conditions

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