



# Safety Data Sheet

Preparation Date 21-Jan-2020

Revision date 23-Aug-2024

Revision Number: 4

## 1. Identification of the Substance/Preparation and of the Company/Undertaking

### Identification of the product

**Product Description** Adept

### Other means of identification

**Internal SDS code** 12A-0004

**Registration number(s)** 70506-531

### Recommended use of the chemical and restrictions on use

**Recommended use** Insect growth regulator.

**Uses advised against** Activities contrary to label recommendation

Non labeled activities

### Details of the Supplier of the Safety Data Sheet

#### Supplier Address

UPL NA Inc.

PO Box 12219

Research Triangle Park, NC 27709-12219

### Emergency telephone number

**Company Phone Number** 1-800-438-6071

**Emergency telephone number** Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887  
Medical: Rocky Mountain Poison and Drug Safety (866) 673-6671 (24hrs)

## 2. Hazards Identification

### Classification

#### OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2B
Carcinogenicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 2

### Label elements

#### EMERGENCY OVERVIEW

**DANGER**

#### Hazard Statements

HARMFUL IF INHALED

Causes eye irritation

May cause cancer

Causes damage to organs through prolonged or repeated exposure

**Appearance** powder**Physical state** solid**Odor** Slight aromatic**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood

Do not breathe dust/fume/gas/mist/vapors/spray

Wash hands thoroughly after handling

Contaminated work clothing should not be allowed out of the workplace

Avoid release to the environment

Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor/physician

**Precautionary Statements - Storage**

Store locked up

Store in a well-ventilated place

**Hazards Not Otherwise Classified (HNOC)****OTHER INFORMATION**

- May form combustible dust concentrations in air
- Toxic to aquatic life

**3. Composition/information on Ingredients**

Chemical name	CAS No	Weight-%
Diflubenzuron	35367-38-5	25
Kaolinite, Hydrous Aluminum Silicate	1332-58-7	63
Quartz	14808-60-7	<1.2

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

**4. First aid measures****FIRST AID MEASURES****Eye contact**

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

**Skin contact**

Wash skin with soap and water. Seek medical attention if skin irritation, swelling or redness develops and persists. Remove and wash contaminated clothing before re-use.

**Inhalation**

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

**Ingestion**

Call a physician or poison control center immediately. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

**Most Important Symptoms and Effects, Both Acute and Delayed**

**Most Important Symptoms and Effects** MAY CAUSE ALLERGIC SKIN REACTION.

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

**Notes to physician** Treat symptomatically.

**5. Fire-fighting measures****Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>), Dry powder, Foam, Water fog. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. If using water or foam, prevent product and runoff from entering drains, sewers or surface water due to high toxicity to aquatic organisms.

**Unsuitable extinguishing media** Water spray.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Dusts or fumes may form explosive mixtures in air.

**Explosion data****Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe dust. Use personal protective equipment.

**Environmental Precautions**

**Environmental precautions** Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Keep material out of lakes, streams, ponds and sewer drains. Dike to confine spill and absorb with an absorbant such as clay, sand or soil. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Methods and material for containment and cleaning up**

**Methods for Clean-Up** Sweep up and shovel into suitable containers for disposal.

**7. Handling and Storage****Precautions for safe handling**

**Handling** Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Avoid dust formation. Do not breathe dust. Use only in well-ventilated areas. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

**Conditions for safe storage, including any incompatibilities**

**Storage** Store in an area where cross-contamination with pesticides, fertilizers, food or feed could not occur. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

**incompatible materials**

Strong bases, Strong acids, Strong oxidizing agents.

**8. Exposure Controls/Personal Protection****Exposure guidelines**

Chemical name	ACGIH TLV	OSHA PEL
Kaolinite, Hydrous Aluminum Silicate	TWA: 2 mg/m <sup>3</sup> particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction
Quartz	TWA: 0.025 mg/m <sup>3</sup> respirable particulate matter	TWA: 50 µg/m <sup>3</sup> Action Level: 25 µg/m <sup>3</sup> (vacated) TWA: 0.1 mg/m <sup>3</sup> respirable dust : (250)/(%SiO <sub>2</sub> + 5) mppcf TWA respirable fraction : (10)/(%SiO <sub>2</sub> + 2) mg/m <sup>3</sup> TWA respirable fraction

**Engineering controls**

Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. Provide appropriate exhaust ventilation at places where dust is formed. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protective equipment****Eye/Face Protection**

Where there is potential for eye contact have eye flushing equipment available. Safety glasses with side-shields. If splashes are likely to occur, wear: Face-shield.

**Skin protection**

Long sleeved clothing. Chemical resistant gloves. Chemical resistant footwear plus socks.

**Respiratory protection**

Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134. In the case of dust or aerosol formation use respirator with an approved filter.

**General hygiene considerations**

Do not eat, drink or smoke when using this product. Wear suitable gloves and eye/face protection. Wear respiratory protection. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product.

**9. Physical and Chemical Properties****9.1 Information on basic physical and chemical properties**

Appearance	powder
Physical state	solid
Odor	Slight aromatic
color	white to Yellow brown

Property	VALUES	Remarks/ Method
pH	7.97	None known
Melting point/freezing point		None known
Boiling Point/Range		None known
Flash Point	> 230 °F	None known
Evaporation Rate		None known
Flammability (solid, gas)		None known
Specific gravity		None known
Bulk density		None known
Water solubility		Dispersible

Solubility in Other Solvents	No information available	None known
Partition coefficient: n-octanol/water		None known
Autoignition temperature		None known
Decomposition temperature		None known
Viscosity		None known

## 9.2 OTHER INFORMATION- NONE

Liquid Density	18 lb/ cu ft
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## 10. Stability and Reactivity

### Reactivity

no data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Hazardous polymerisation does not occur.

### Conditions to avoid

Extremes of temperature and direct sunlight.

### Incompatible materials

Strong bases, Strong acids, Strong oxidizing agents.

### Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides.

## 11. Toxicological Information

### Information on Likely Routes of Exposure

Product information	Adept Acute oral LD50 (rat) = >6,700 mg/kg Acute dermal LD50 (rat) = >20,000 mg/kg Acute inhalation LC50 (rat) 4 hr = > 3.52 mg/L
Inhalation	Harmful by inhalation. Inhalation of dust in high concentration may cause irritation of respiratory system.
Eye contact	May cause slight irritation.
Skin contact	Substance may cause slight skin irritation. Based on available data, the classification criteria are not met.
Ingestion	Based on available data, the classification criteria are not met.

### Information on Toxicological Effects

Symptoms	No information available.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic effects	no data available.
Carcinogenicity	Quartz Chronic inhalation of crystalline silica may cause a progressive pneumoconiosis (a disabling lung disease) called silicosis. Data from animal studies on crystalline forms of silica

conform the capacity of free crystalline silica to induce a fibrinogenic response in lungs. Studies on a variety of laboratory animals (rats, guinea pigs, rabbits and monkeys) using inhalation as well as intratracheal routes of exposure indicate the ability of crystalline silica to produce silicosis to that seen in man. In addition, experiments in animals have confirmed human experience that the presence of crystalline silica in the lung increased susceptibility to tuberculosis and other lung infections. Crystalline silica inhaled in the form of quartz is classified as carcinogenic to humans (Group 1) by IARC and respirable forms of crystalline silica are listed as substances known to be human carcinogen by NTP. Epidemiology studies cited by IARC give indications of increased risk for lung cancer from inhaled crystalline silica (Quartz) resulting from occupational exposure. Studies involving heavy industrial exposure to silica in granite and foundry workers, brick factories and sandblasting produced increased levels of protein and enzymes in urine, which is indicative of kidney damage.

Chemical name	ACGIH	IARC	NTP	OSHA
Quartz 14808-60-7	A2	Group 1	Known	X

**Reproductive effects** Not Available.  
**STOT - Single Exposure** no data available.  
**STOT - Repeated Exposure** no data available.  
**Aspiration hazard** No information available.

#### Numerical Measures of Toxicity - Product information

**LD50 Oral** > 6,700 mg/kg  
**LD50 Dermal** > 20,000 mg/kg  
**LC50 Inhalation** LC50/inhalation/4h/rat = > 3.52 mg/l (4-hr)

## 12. Ecological Information

#### ecotoxicity

Very toxic to aquatic life with long lasting effects  
 Diflubenzuron  
 FISH LC 50 (Cyprinodon sp) = > 0.13 mg/L 96 hr  
 LC50 (Oncorhynchus mykiss) = > 0.2 mg/L 96 hr  
 DAPHNIA EC 50 = 0.003 mg/L 48 hr  
 AQUATIC ORGANISM EC50 = 0.00064 mg/L 96 hr

#### Persistence/Degradability

no data available.

#### Bioaccumulation/ Accumulation

Not available.

#### Other Adverse Effects

no data available

## 13. Disposal Considerations

#### Waste Treatment Methods

##### **Waste Disposal Method**

Pesticide wastes can be hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or 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.

##### **Contaminated packaging**

Refer to product label.

**14. Transport Information****DOT**

When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated.

When shipped in bulk, by vessel, or internationally refer to the IMDG shipping description:

**TDG**

When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1

In bulk, by vessel or internationally - use IMDG description

**IATA****UN/ID no****Proper shipping name****Hazard class****Packing group****Description**

Single or inner packagings less than 5L (liquid) or 5kg net (solids) are excepted from the Dangerous Goods regulations (IATA Special provision A197)

UN3077

Environmentally hazardous substances, solid, n.o.s (Diflubenzuron)

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PG III

Marine pollutant

**IMDG****UN/ID no****Proper shipping name****Hazard class****Packing group****Environmental hazards**

Single or inner packaging less than 5L (liquid) or 5 kg net (solids) are excepted from the Dangerous Goods regulations (IMDG 2.10.2.7)

UN3077

Environmentally hazardous substances, solid n.o.s. (Diflubenzuron)

9

PG III

Marine pollutant

**15. Regulatory Information**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**signal word**

CAUTION

**Ventilation Control**

THESE WORKERS MUST REFER TO PRODUCT LABELING AND DIRECTIONS FOR USE IN ACCORDANCE WITH EPA WORKER PROTECTION STANDARD 40 CFR PART 170.

**Causes moderate eye irritation.**

**Toxic to aquatic invertebrates.**

**International Inventories**

**USINV**

Present

**DSL/NDSL**

Present

**EINECS/**

Not Present

**ELINCS**

**ENCS**

Not Present

**China**

Present

**KECL**

Present

**PICCS**

Present

**AICS**

Not Present

**TSCA**

Present

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**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

### Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### **CERCLA**

Not applicable

#### **CERCLA**

#### **RCRA**

### Pesticide Information

Component	FIFRA - Restricted Use	FIFRA - Pesticide Product Other Ingredients	FIFRA - Listing of Pesticide Chemicals	California Pesticides - Restricted Materials
Diflubenzuron 35367-38-5 ( 25 )			X	
Kaolinite, Hydrous Aluminum Silicate 1332-58-7 ( 63 )			X	

### State Regulations

#### **State Right-to-Know**

Chemical name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Diflubenzuron - 35367-38-5	X	X			
Kaolinite, Hydrous Aluminum Silicate - 1332-58-7	X	X	X		
Quartz - 14808-60-7	X	X	X	X	

### International regulations

#### U.S. EPA Label information

EPA Pesticide registration number 70506-531

## 16. Other Information

#### NFPA

HEALTH 1

flammability 2

Instability 0

Physical hazard -

Preparation Date 21-Jan-2020

Revision date 23-Aug-2024

#### **Revision Summary**

Update section 2 Update section 11

#### Disclaimer

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End of SDS