



TIDE INTERNATIONAL USA, INC.
—A DIVISION OF TIDE GROUP

REVISION DATE: 03/20/2018 VERSION 2.0

[1. Identification]

Product name:	Tide Diflubenzuron 2SC
Chemical name:	[[[(4-Chlorophenyl)amino)carbonyl]-2,6-difluorobenzamide
Chemical family:	Benzamide
EPA Reg. No.:	84229-49
Recommended Use:	Insecticide
Supplier	Tide International USA, Inc. 21 Hubble, Irvine, CA 92618
For medical or chemical* emergencies:	Call CHEMTREC®: 1-800-424-9300 (24 hours/day)
*Spill, leak, fire, exposure or accident	
For non-emergency product information:	Call the NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378 (Monday - Friday, 8-12 PM Pacific time)

[2. Hazard(s) Identification]

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR §1910.1200 (2012)

Classification of the substance or mixture

Acute Oral Toxicity (Category 5)
Acute Dermal Toxicity (Category 5)
Acute Inhalation Toxicity (Category 5)
Acute aquatic toxicity (Category 1)

GHS pictograms



Signal Word: WARNING

GHS Hazard Statements:

H303 May be harmful if swallowed
H313 May be harmful in contact with skin
H333 May be harmful if inhaled
H400 Very toxic to aquatic life.

Precautionary Statements:

Prevention:

P273 Avoid release to the environment.

Response:

P312 Call a POISON CENTER/doctor if you feel unwell.
P304 + P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
P391 Collect spillage.

Storage: See section 7 for storage information.

Disposal:

P501 Dispose of contents/container to hazardous or special waste collection point in accordance with local, regional, national and/or international regulations.

Routes of exposure: Eyes, skin, ingestion & inhalation.

Carcinogenicity: Animal testing did not show any carcinogenic effects for diflubenzuron technical.

Other health concerns

NFPA Ratings: Health-0 Flammability-1 Reactivity-0

Environmental hazards:

This pesticide is toxic to terrestrial juvenile insects and aquatic invertebrates/mollusks/insects. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

[3. Composition / Information on Ingredients]

According to Hazard Communication Standard (HCS) or 29 CFR §1910.1200 (2012).

Active ingredient	CAS No.	Content (w/w,%)	ACGIH
Diflubenzuron	35367-38-5	22.0 .	NA
Other ingredient deemed not to be hazardous	Proprietary	Balance	NA

[4. First aid measures]

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information.

If inhaled:

Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell.

If in eyes:

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. If eye irritation persists, get medical advice/attention.

If on skin:

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

If swallowed:

Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: No information available.

Note to physician: Treat symptomatically. No specific antidote

[5. Fire-Fighting measures]

Suitable extinguishing media: Dry chemical extinguisher, foam, carbon dioxide or waterspray (do not use direct jet of water).

Unsuitable extinguishing media: No data available

Special hazards arising from the chemical (hazardous combustion products): Combustion products are toxic and/or irritant. Measures have to be taken to prevent the contaminated extinguishing agent from seeping into the ground or from spreading uncontrollably.

Special protective equipment and precautions for fire-fighters: Use self-contained breathing apparatus. Wear protective equipment.

Advice for firefighters: Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Dike and collect water used to fight fire to prevent environmental damage due to runoff. Dispose of fire debris and contaminated extinguishing water in accordance with local regulations.

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

Precautions: Wear suitable protective clothing and eye protection to prevent skin and eye contact.

Environmental precautions: Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

General and Disposal: Isolate area and keep unauthorized people away. Avoid breathing vapors and avoid skin contact. Use proper protective equipment to minimize personal exposure (see Section 8). Contaminated soil may have to be removed and disposed. Contact Tide International USA for further assistance if necessary.

Methods and materials for containment and cleaning up:

Methods for cleaning up: Clean up spills immediately, observing precautions in Section 8 of this document. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Cover entire spill with absorbing material such as sand, clay or vermiculite and place into appropriate and compatible container for disposal.

Large spills: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible. Allow absorbed material to solidify, and scrape up for

disposal. After removal, clean contaminated area thoroughly with water and hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place in a disposable container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations. Large spills should be handled according to a spill plan. Otherwise, in case of emergency call CHEMTREC® day or night, 1-800-424-9300.

[7. Handling and Storage]

Precautions for safe handling:

Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid release to the environment. Keep away from flames and hot surfaces. No Smoking. If product gets in eyes, wash it out immediately with water. If product gets on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Conditions for safe storage:

Store the material in a well ventilated, secure area out of reach of children and domestic animals. Store in a cool, dry place away from food, drink and animal feeding stuffs. Store away from any incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed tightly when not in use. Check containers regularly for leaks.

[8. Exposure controls / Personal protection]

Control parameters:

Components.	CAS-No	Control parameters	Basis
Diflubenzuron	35367-38-5	NA	NA

Appropriate engineering controls:

Control airborne concentrations below the appropriate exposure guideline (see above for any applicable OSHA/ACGIH Exposure Limits). Local exhaust ventilation may be necessary.

Personal protective equipment:

Respiratory protection: When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection: Handle with gloves. For prolonged or repeated contact use chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or viton.

Eye protection: Chemical tight goggles; full face shield in addition if splashing is possible.

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

General protective measures: Handle in accordance with good industrial hygiene and safety practice. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water.

Keep and wash PPE separately from other laundry. Eye wash facility and safety shower should be available. Wash hands before breaks and at the end of workday.

[9. Physical and chemical properties]

Appearance: White Viscous liquid

Odor: Non-characteristic odor

Odor threshold: No data available

pH: 6.0~8.0

Melting point/freezing point: No data available

Initial boiling point and boiling range: Not available

Flash point: > 100 °C

Flammability: No data available

Explosibility: No data available

Evaporation rate: No data available

Vapor pressure: No data available

Vapor density: No data available

Relative density: 1.05-1.15

Solubility: No data available

Octanol/water partition coefficient: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: 250.1 cP (mPa s) at 20°C, 20°C
209.0 cP (mPa s), 40°C

Note Physical data are typical values based on material test but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis or as a specification.

[10. Stability and reactivity]

Reactivity: Product will not undergo polymerization

Chemical Stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: None known.

Conditions to avoid: No data available.

Incompatible Materials: Strong oxidizing materials

Hazardous decomposition products: Carbon oxides, nitrogen oxides (NO_x), Hydrogen chloride gas, Hydrogen fluoride.

[11. Toxicological information]

Exposure routes: Eyes, skin, ingestion & inhalation.

(Based on diflubenzuron technical)

Toxicity:

Acute toxicity:

Acute oral (rats): LD₅₀ >2000 mg/kg b.w. for male and female rats.

Acute dermal (rabbits): LD₅₀ > 2000 mg/kg b.w.

Acute inhalation (Rats): LC₅₀ (4h) > 5.22 mg/L

Acute eye irritation (rabbits): Minimal irritant to rabbit eye.

Acute dermal irritation (rabbits): No skin irritating.

Skin sensitization (mice): No skin sensitization in guinea pig.

Chronic Toxicity: No data available.

Carcinogenicity:

Animal testing did not show any carcinogenic effects.

Mutagenicity : Animal testing did not show any mutagenic effects.

Teratogenicity : No effects on or via lactation.

Reproductive toxicity : No toxicity to reproduction.

[12. Ecological information]

(Based on diflubenzuron technical)

Toxicity:

Toxicity to fish LC₅₀ - Oncorhynchus mykiss (rainbow trout) - 240 mg/L-96h

Toxicity to daphnia EC₅₀ - Daphnia magna (water flea) - 0.015 mg/L- 48h

Toxicity to algae EC₅₀ - Pseudokirchneriella subcapitata (green algae) - >0.19 mg/L- 72h

Persistence/Degradability: No readily biodegradable

Bioaccumulative potential

Lepomis macrochirus - 19 d -3.1 µg/l

Bioaccumulation factor >100.

Mobility in soil: No data available.

PBT and vPvB assessment: No data available.

Other adverse effects

An environment hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

[13. Disposal considerations]

Dispose of contents and container in accordance with local regulations. End users must dispose of any unused product as per the label recommendations.

Waste Disposal:

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

Container Disposal:

[FIBER DRUMS WITH LINERS] Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into formulation equipment. Then offer for recycling if available or dispose of empty liner in a sanitary landfill or by other procedures allowed by state and local authorities. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner.

[BAGS] Nonrefillable container. Do not reuse or refill this container. Completely empty bag into formulation equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by other procedures allowed by state and local authorities.

[14. Transport information]

DOT

UN Number : 3082

Description of the goods: Environmentally hazardous substances, liquid, n.o.s. (Diflubenzuron)

Class: 9

Packing group: III

ERG Code: 171

IATA

UN-Number: 3082

Description of the goods: Environmentally hazardous substance, liquid, n.o.s. (Diflubenzuron)

Class: 9

Packing group: III

IMDG

UN-Number: 3082

Description of the goods: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Diflubenzuron)

Class: 9

Packing group: III

EmS Letter 1: F-A

EmS Letter 2: S-F

Marine pollutant: yes

[15. Regulatory information]

FIFRA

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. The following is the hazard information as required on the pesticide label:

EPA Reg. No.: 84229-49

EPA Signal word: Caution

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Wear long-sleeved shirt and long pants, socks and shoes.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to terrestrial juvenile insects and aquatic invertebrates/mollusks/insects. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams and springs will reduce the potential for contamination of water from rainfall-runoff.

Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

OSHA Hazards

Harmful by skin absorption.

DSL Status

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

	CAS-No.
N-[[[4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide	35367-38-5

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

	CAS-No.	Revision Date
N-[[[4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide	35367-38-5	1993-04-24

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
N-[[[4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide	35367-38-5	1993-04-24

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
N-[[[4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide	35367-38-5	1993-04-24

New Jersey Right To Know Components

	CAS-No.	Revision Date
N-[[[4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide	35367-38-5	1993-04-24

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

[16. Other information]

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Tide International USA, Inc. assumes no responsibility for results obtained or for incidental or consequential damages arising from the use of these data.