## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Diflubenzuron

**Further trade names**

N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide

CAS No: 35367-38-5

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Use of the substance/mixture**

Reference standard for analysis.

### 1.3. Details of the supplier of the safety data sheet

| | | |
|---|---|---|
| Company name: | WITEGA Laboratorien Berlin-Adlershof GmbH | |
| Street: | James-Franck-Strasse 4 | |
| Place: | D-12489 Berlin | |
| Telephone: | +493063922001 | Telefax: +493063922007 |
| e-mail: | witega@witega.de | |
| Internet: | www.witega.de | |

### 1.4. Emergency telephone number:

+493063922001

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**GB CLP Regulation**

Acute Tox. 4; H312
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

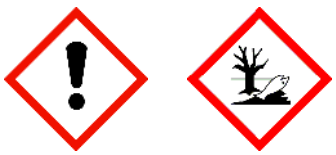
Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

**GB CLP Regulation**

**Signal word:** Warning

**Pictograms:**



**Hazard statements**

| | |
|---|---|
| H312 | Harmful in contact with skin. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**Precautionary statements**

| | |
|---|---|
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P262 | Do not get in eyes, on skin, or on clothing. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

### 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Sum formula: C14H9ClF2N2O2

Molecular weight: 310.68 g/mol

**Hazardous components**

| CAS No | Chemical name | | | Quantity |
|---|---|---|---|---|
| | EC No | Index No | REACH No | |
| | Classification (GB CLP Regulation) | | | |
| 35367-38-5 | Diflubenzuron | | | 100 % |
| | Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1; H312 H400 H410 | | | |

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

| CAS No | EC No | Chemical name | Quantity |
|---|---|---|---|
| | Specific Conc. Limits, M-factors and ATE | | |
| 35367-38-5 | | Diflubenzuron | 100 % |
| | dermal: LD50 = 2000 mg/kg; oral: LD50 = 4640 mg/kg | | |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**After inhalation**

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

**After contact with skin**

Remove contaminated, saturated clothing immediately. Subsequently wash off with: Water and soap

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Get immediate medical advice/attention.
Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps.

### 4.2. Most important symptoms and effects, both acute and delayed

No data available

### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media**

Water spray jet. Foam. Dry extinguishing powder. Carbon dioxide (CO2).

**5.2. Special hazards arising from the substance or mixture**

In case of fire may be liberated: Pyrolysis products, toxic. In case of fire and/or explosion do not breathe fumes.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

**General advice**

Use personal protection equipment. Do not breathe gas/fumes/vapour/spray.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

**Other information**

Take up dust-free and set down dust-free.

**6.4. Reference to other sections**

Disposal: see section 13

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

**Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

**Advice on general occupational hygiene**

Use personal protection equipment.

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

**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Avoid: UV-radiation/sunlight

**Further information on storage conditions**

storage temperature: 2-8°C

**7.3. Specific end use(s)**

none

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

**8.2. Exposure controls**

**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Eye glasses with side protection

**Hand protection**

Wear suitable gloves. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

**Skin protection**

lab coat

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state: | solid |
| Colour: | colourless |
| Melting point/freezing point: | 234-236 °C |
| Boiling point or initial boiling point and boiling range: | No data available |
| Flammability: | No data available |
| Lower explosion limits: | No data available |
| Upper explosion limits: | No data available |
| Flash point: | No data available |
| Auto-ignition temperature: | No data available |
| Decomposition temperature: | No data available |
| pH-Value: | No data available |
| Water solubility: | No data available |

### 9.2. Other information

**Information with regard to physical hazard classes**

Explosive properties

No data available

Self-ignition temperature

| | |
|---|---|
| Solid: | No data available |
| Gas: | No data available |

Oxidizing properties

No data available

**Other safety characteristics**

| | |
|---|---|
| Evaporation rate: | No data available |

**Further Information**

none

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with : Oxidising agent, Alkali (lye), Etchant and acids

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

### 10.4. Conditions to avoid

Do not expose to temperatures exceeding 50 °C/122 °F.

### 10.5. Incompatible materials

Oxidising agent, Alkali (lye), Etchant and acids

### 10.6. Hazardous decomposition products

In case of fire may be liberated: Pyrolysis products, toxic.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in GB CLP Regulation

**Acute toxicity**

Harmful in contact with skin.

| CAS No | Chemical name | | | | |
|---|---|---|---|---|---|
| | Exposure route | Dose | Species | Source | Method |
| 35367-38-5 | Diflubenzuron | | | | |
| | oral | LD50 4640 mg/kg | Rat | | |
| | dermal | LD50 2000 mg/kg | Rabbit | | |

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Specific effects in experiment on an animal**

No data available

## SECTION 12: Ecological information

### 12.1. Toxicity

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

No data available

| CAS No | Chemical name | | | | | |
|---|---|---|---|---|---|---|
| | Aquatic toxicity | Dose | [h] \| [d] | Species | Source | Method |
| 35367-38-5 | Diflubenzuron | | | | | |
| | Acute fish toxicity | LC50 240 mg/l | 96 h | Oncorhynchus mykiss (Rainbow trout) | | |
| | Acute algae toxicity | ErC50 >0.19 mg/l | 72 h | Pseudokirchneriella subcapitata | | |
| | Acute crustacea toxicity | EC50 0.015 mg/l | 48 h | Daphnia magna (Big water flea) | | |

### 12.2. Persistence and degradability

No data available

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No data available

## SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

**Disposal recommendations**

Dispose of waste according to applicable legislation.
Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**Contaminated packaging**

This material and its container must be disposed of as hazardous waste.

## SECTION 14: Transport information

**Land transport (ADR/RID)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 3077 |
| **14.2. UN proper shipping name:** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide) |
| **14.3. Transport hazard class(es):** | 9 |
| **14.4. Packing group:** | III |
| Hazard label: | 9 |

| | |
|---|---|
| Classification code: | M7 |
| Special Provisions: | 274 335 375 601 |
| Limited quantity: | 5 kg |
| Excepted quantity: | E1 |
| Transport category: | 3 |
| Hazard No: | 90 |
| Tunnel restriction code: | - |

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 3077 |
| **14.2. UN proper shipping name:** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide) |
| **14.3. Transport hazard class(es):** | 9 |
| **14.4. Packing group:** | III |
| Hazard label: | 9 |

| | |
|---|---|
| Classification code: | M7 |
| Special Provisions: | 274 335 375 601 |
| Limited quantity: | 5 kg |
| Excepted quantity: | E1 |

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 3077 |
| **14.2. UN proper shipping name:** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide) |

**14.3. Transport hazard class(es):** 9
**14.4. Packing group:** III
Hazard label: 9

Special Provisions: 274 335 966 967 969
Limited quantity: 5 kg
Excepted quantity: E1
EmS: F-A, S-F

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 3077
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (N-[[(4-Chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide)
**14.3. Transport hazard class(es):** 9
**14.4. Packing group:** III
Hazard label: 9

Special Provisions: A97 A158 A179 A197 A215
Limited quantity Passenger: 30 kg G
Passenger LQ: Y956
Excepted quantity: E1
IATA-packing instructions - Passenger: 956
IATA-max. quantity - Passenger: 400 kg
IATA-packing instructions - Cargo: 956
IATA-max. quantity - Cargo: 400 kg

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes

**14.6. Special precautions for user**

No transport as bulk according to IBC Code.

**14.7. Maritime transport in bulk according to IMO instruments**

No transport as bulk according to IBC Code.

## SECTION 15: Regulatory information

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water hazard class (D): 3 - highly hazardous to water

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

## SECTION 16: Other information

**Relevant H and EUH statements (number and full text)**

| | |
|---|---|
| H312 | Harmful in contact with skin. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

**Further Information**

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship. The substances are only for R&D. Do not use as a drug, in household or other applications.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*