

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture  
Product name : DIMILIN FLO  
Product code : CA 028 1131  
Type of formulation : Suspension concentrate (SC)  
Active Ingredient : Diflubenzuron

**1.2. Relevant identified uses of the substance or mixture and uses advised against****2.1. Relevant identified uses**

Main use category : Plant protection product for professional use. Agriculture.  
Use of the substance/mixture : Insecticide, Acaricide.

**1.2.2. Uses advised against**

No additional information available.

**1.3. Details of the supplier of the safety data sheet**Supplier:

Chemtura Manufacturing UK Limited  
Tenax Road, Trafford Park  
Manchester  
United Kingdom  
M17 1WT

Distributor:

CERTIS UK  
1 Riverside  
Granta Park  
Great Abington  
Cambridgeshire CB21 6AD  
United Kingdom  
Tel: +44 (0)845 373 0305  
Fax: +44 (0)1223 891210  
Email: [certis@certiseurope.co.uk](mailto:certis@certiseurope.co.uk)  
Website: [www.certiseurope.co.uk](http://www.certiseurope.co.uk)

**1.4. Emergency telephone number**

Emergency number : Certis Carechem24 multilingual 24 hours emergency number: +44 (0) 870 190 6777.  
For advice on medical emergencies, fires, spillages or chemical hazards only –phone: 0870 190 6777.  
For further advice for medical professionals - The National Poisons Information Service:  
Tel: 0870 600 6266 (UK only) or Dublin Tel: 0035 3 137 99 64/379966.  
For further advice for veterinary surgeons: 020 7635 9195.

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Aquatic Acute 1 H400

Aquatic Chronic 1 H410

Full text of H-phrases: see section 16

**Classification according to Directive 67/548/EEC or 1999/45/EC**

N; R50/53

Full text of R-phrases: see section 16.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP)



GHS09

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP)

: P273 - Avoid release to the environment.  
 P391 - Collect spillage.  
 P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

EUH phrases

: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.  
 EUH208 - Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

**Labelling according to Directive 67/548/EEC or 1999/45/EC**

Hazard symbols



N - Dangerous for the environment

R-phrases

: R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases

: S35 - This material and its container must be disposed of in a safe way.  
 S57 - Use appropriate container to avoid environmental contamination.

**2.3. Other hazards**

No additional information available.

**SECTION 3: Composition/information on ingredients**
**3.1. Substances**

Not applicable.

**3.2. Mixture**

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Diflubenzuron	(CAS No) 35367-38-5 (EC no) 252-529-3 (EC index no) -	38.4	N; R50/53
Ethanediol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1	>=1-< 10	Xn; R22
Sulfurous acid, monosodium salt, reaction products with cresol formaldehydenonylphenol polymer (average MW 300 600)	(CAS No) 115535-44-9	1 - 10	R53
Sodium diisopropylnaphtalene sulphonate	(CAS No) 1322-93-6 (EC no) 215-343-3 (EC index no) -	<= 10	Xn; R22 Xi; R36/37

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Diflubenzuron	(CAS No) 35367-38-5 (EC no) 252-529-3 (EC index no) -	38.4	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Ethanediol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1	>=1-< 10	Acute Tox. 4 (Oral), H302
Sulfurous acid, monosodium salt, reaction products with cresol formaldehydenonylphenol polymer (average MW 300 600)	(CAS No) 115535-44-9	1 - 10	Aquatic Chronic 4, H413
Sodium diisopropylnaphtalene sulphonate	(CAS No) 1322-93-6 (EC no) 215-343-3 (EC index no) -	<= 10	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 STOT SE 3, H335

Full text of R-, H- and EUH-phrases: see section 16

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**

- First-aid measures general : In the event of any complaints or symptoms, avoid further exposure.
- First-aid measures after inhalation : IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Give oxygen or artificial respiration if needed. Consult a physician after significant exposure.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and shoes.  
If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before re-use. Destroy contaminated shoes.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes, also under eyelides. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.

First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor. Never give anything by mouth to an unconscious person. Do not induce vomiting.

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

Symptoms/injuries : No information available.

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

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Extinguishing media - Large fires.  
Alcohol-resistant foam - on small fires.  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical  
Water spray

Unsuitable extinguishing media : Water spray jet.

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

Fire hazard : Combustion or thermal decomposition may generate toxic vapours: chlorine compounds, nitrogen oxides, carbon monoxide, hydrocarbons.

#### 5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.  
Fight fire from safe distance and protected location.  
Do not breathe fumes  
Cool closed containers exposed to fire with water spray  
If possible, take the containers out of dangerous zone.  
Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers, streams or groundwater.

Protection during firefighting : Wear suitable protective clothing, gloves, eye/face protection and respiratory protection  
Wear a self-contained breathing apparatus.

### SECTION 6: Accidental release measures

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

Protective equipment : Wear suitable protective clothing, gloves and eye/ face protection.

Emergency procedures : Evacuate area.  
Ensure adequate ventilation.  
Avoid direct contact with the substance.  
Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

Notify the authorities if product enters sewers or public waters.

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

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.

Once absorbed collect spilled material with shovels, buckets and place in closed containers and label properly.

Remove as chemical waste, according to national or local legislation.

In the event of major spillage: contact an expert.

### 6.4. Reference to other sections

See sections 7-8-13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Read label before use.

Provide adequate ventilation.

Avoid contact with eyes, skin, nose and mouth.

Wear suitable protective clothing, gloves and eye/face protection.

Opened containers must be carefully closed and kept upright to avoid leakage.

Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.

Contaminated work clothing should not be allowed out of the workplace.

Do not eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

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

Technical measures : Provide adequate ventilation.

Storage conditions : Prevent unauthorised access.

Keep locked up and out of the reach of children.

Keep in original containers, tightly closed.

Keep away from food, drink and animal feedingstuffs.

Protect against frost.

Keep away from heat and direct sunlight.

### 7.3. Specific end use(s)

Insecticide for agricultural use. Refer to the label.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Components	CAS-No	Value	Control parameters	Update	Basis
Ethane-1,2-diol (Vapour)	107-21-1	TWA	20 ppm 52 mg/m <sup>3</sup>	2000-06-16	2000/39/EC
		STEL	40 ppm 104 mg/m <sup>3</sup>	2000-06-16	2000/39/EC
		TWA	20 ppm 52 mg/m <sup>3</sup>	2011-12-01	GB EH40
		TWA	10 mg/m <sup>3</sup>	2011-12-01	GB EH40

Components	CAS-No	Value	Control parameters	Update	Basis
		STEL	40 ppm 104 mg/m <sup>3</sup>	2011-12-01	GB EH40
Silicon dioxide (Amorphous, fumed)	7631-86-9	TWA	6 mg/m <sup>3</sup>	2011-12-01	GB EH40
		TWA	2.4 mg/m <sup>3</sup>	2011-12-01	GB EH40

### 8.2. Exposure controls

- Appropriate engineering controls : Use mechanical ventilation for general area control.  
Exhaust air must be cleaned using approved equipment before returning it to the work place.  
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Personal protective equipment : Protective clothing. Protective goggles. Gloves. Dust/aerosol mask.
- 



- Hand protection : Wear impervious gloves resistant to chemical. Nitrile rubber.
- Eye protection : Safety goggles or a face shield.
- Skin and body protection : Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.  
Remove and wash contaminated clothing before re-use. Discard contaminated shoes.
- Respiratory protection : Wear appropriate respirator for organic vapors (EN 141)
- Hygiene measures : Wash contaminated clothing before re-use.  
Do not eat, drink or smoke while handling the product.  
Clean gloves with soap and water before removing.  
Wash hands and face with soap and water before eating, drinking or smoking.  
Clean equipment, premises and work clothes regularly.  
Work clothing should remain on the work area and stored separately from street clothes.
- Environmental exposure controls : Discharge into the environment must be avoided.  
Do not contaminate surface and groundwater.

## SECTION 9: Physical and chemical properties

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

- Physical state : Liquid - suspension concentrate.
- Colour : Off-white
- Odour : None.
- Odour threshold : No data available
- pH : 6-8 (1%)
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : Not applicable
- Self ignition temperature : Not applicable
- Decomposition temperature : No data available
- Flammability (solid, gas) : Not applicable
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available

Relative density	: No data available
Density	: 1.3 g/cm <sup>3</sup>
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1000-1600 mPa.s (25 °C)
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is stable at normal handling and storage conditions.

### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

Is not explosive and does not exhibit oxidant properties.

### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

### 10.5. Incompatible materials

Strong acids and strong bases.

Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Combustion or thermal decomposition may generate toxic vapours: chlorine compounds, nitrogen oxides, carbon monoxide, hydrocarbons, hydrogen halides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

DIMILIN FLO	
LD50 oral rat	5000 mg/kg
LD50 dermal rat	2000 mg/kg
LC50 inhalation rat	>5 mg/l

Diflubenzuron (35367-38-5)	
LD50 oral rat	>4,640 mg/kg
LD50 dermal rat	>2000 mg/kg
LC50 inhalation rat	>2,49 mg/l/4h

Irritation : Not classified  
 No skin irritation (rabbit)  
 No eye irritation (rabbit)

Corrosivity : Not classified

Sensitisation	: Not classified
	The product did not cause sensitization on laboratory animals (guinea pig)
Repeated dose toxicity	: Not classified
Carcinogenicity	: Not classified
Mutagenicity	: Not classified
Toxicity for reproduction	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

No data is available on the product itself.

Diflubenzuron (35367-38-5)	
LC50 Fish	>0.13 mg/l (96h)
LC50 Fish ( <i>Cyprinodon sp</i> )	>0.2 mg/l (96h)
EC50 <i>Daphnia magna</i>	0.0026 mg a.s/L (48h)
EC50 <i>Selenastrum capricornutum</i>	>0.3 mg/l (120h)
NOEC ( <i>Oncorhynchus mykiss</i> )	0.2mg/l (96h)

M-Factor (Acute Aquatic toxicity):100

M-Factor (Chronic aquatic toxicity): 1000

### 12.2. Persistence and degradability

Diflubenzuron (35367-38-5)	
Persistence and degradability	Not readily biodegradable.

### 12.3. Bioaccumulative potential

Diflubenzuron (35367-38-5)	
BCF fish	320

### 12.4. Mobility in soil

No additional information available.

### 12.5. Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Apply triple washing procedure of the empty container and place the rinse water in the tank or container where the mixture is prepared. Handle empty containers and waste as established by the competent authorities.

Offer surplus and non-recyclable solutions to a licensed disposal company.

### SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

#### 14.1. UN number

UN-No. : 3082

UN-No.(IATA) : 3082

#### 14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflubenzuron)

Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflubenzuron), 9, III, (E)

#### 14.3. Transport hazard class(es)

Class (UN) : 9

Class (IATA) : 9 - Miscellaneous dangerous goods.

Hazard labels (UN) : 9



#### 14.4. Packing group

Packing group (UN) : III

#### 14.5. Environmental hazards

Dangerous for the environment :

Marine pollutant



Other information : No supplementary information available.

#### 14.6. Special precautions for user

##### 14.6.1. Overland transport

Hazard identification number (Kemler No.) : 90

Classification code (UN) : M6

Orange plates :



Special provision (ADR) : 274, 335, 601

Transport category (ADR) : 3

Tunnel restriction code : E

Limited quantities (ADR) : 5L

Excepted quantities (ADR) : E1

EAC code : •3Z

##### 14.6.2. Transport by sea

EmS-No. (1) : F-A

EmS-No. (2) : S-F

##### 14.6.3. Air transport

No additional information available

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

**SECTION 15: Regulatory information**
**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
**15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

Contains no REACH candidate substance

**15.1.2. National regulations**

No additional information available

**15.2. Chemical safety assessment**

Not required.

**SECTION 16: Other information**

Source of information :

Indication of changes:

Change date	Previous Version	Section	Changed Item	Change
05/09/2014	2.0	2	R53	Added
		9.1	Boiling point:100°C	Deleted
			Density: 1.2	Modified
			Viscosity, dynamic: 150mPa.s.	Modified
29/10/2014	2.1	4.1, 8.0	Skin contact: Destroy/discard contaminated shoes.	Added
		10.5	Incompatible materials	Added

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R22	Harmful if swallowed
R36/37	Irritating to eyes and respiratory system
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*