

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

### 1.1. Product identifier

Product form : Mixture  
Product name : FLORAMITE 240 SC  
Product code : CA 027 1071  
Type of formulation : Suspension concentrate (SC)  
Active Ingredient : Bifenazate

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

#### 1.2.1. Relevant identified uses

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

#### 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]

Skin Sens. 1 H317

Aquatic Chronic 2 H411

Full text of H-phrases: see section 16.

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

R43

N; R51/53

Full text of R-phrases: see section 16

### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Warning.

Contains

: Bifenazate (149877-41-8).

Hazard statements (CLP)

: H317 - May cause an allergic skin reaction.  
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P261 - Avoid breathing mist/spray.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P363 - Wash contaminated clothing before reuse.  
P391 - Collect spillage.

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



Hazardous ingredients

: Bifenazate

R-phrases

: R43 - May cause sensitization by skin contact.  
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment

S-phrases : S24 - Avoid contact with skin  
 S37 - Wear suitable gloves

**2.3. Other hazards**

No additional information available

**SECTION 3: Composition/information on ingredients**

**3.1. Substance**

Not applicable.

**3.2. Mixture**

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Bifenazate	(CAS No) 149877-41-8 (EC no) 442-820-5	23.37	R43 N; R50/53

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Bifenazate	(CAS No) 149877-41-8 (EC no) 442-820-5	23.37	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of R- and H-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. Get medical advice/attention.

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.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for at least 15 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 : Sensitising effects.

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

The first aid procedures should be agreed in consultation with the occupational physician responsible.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media : Dry chemical powder  
 Alcohol resistant foam  
 Carbon dioxide (CO<sub>2</sub>).

Unsuitable extinguishing media : Water jet spray.

### 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 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 or 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

Refer to protective measures listed in Sections 7 and 8.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Precautions for safe handling : Read label before use.

Use only in area provided with appropriate exhaust 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 in a dry cool place.

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. Plant protection agent.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

Propane-1,2-diol (Sum of vapour and particulates) (57-55-6)			
Value	Control parameters	Update	Basis
TWA	10 mg/m <sup>3</sup>	2011-12-01	GB EH40
TWA	150 ppm 474 mg/m <sup>3</sup>	2011-12-01	GB EH40

**8.2. Exposure controls**

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Ensure adequate ventilation.

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.
Respiratory protection	: Wear appropriate respirator for dust / organic vapors.
Hygiene measures	: Remove and 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 smoking and immediately after handling product. 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
Colour	: Off-white, to, tan.
Odour	: Slight, sweet.
Odour threshold	: No data available
pH	: 5-9
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 100 °C
Flash point	: Does not flash.
Auto-ignition temperature	: > 399 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative density	: 1.050 - 1.070 (25°C)
Density	: 1.1 g/cm <sup>3</sup>
Solubility	: Dispersible.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 300- 700 mPa.s
Explosive properties	: Not explosive.
Oxidising properties	: No data available
Explosive limits	: No explosive.

### 9.2. Other information

Surface tension	: 42,1 mN/m (25 °C)
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under normal circumstances.

**10.3. Possibility of hazardous reactions**

Hazardous polymerization does not occur.

**10.4. Conditions to avoid**

Extremely high or low temperatures.

Direct sunlight.

**10.5. Incompatible materials**

Oxidizing agents.

**10.6. Hazardous decomposition products**

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

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

Acute toxicity : Not classified

<b>FLORAMITE 240 SC</b>	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 inhalation rat	> 1.94 mg/l/4h

<b>Bifenazate (149877-41-8)</b>	
LD50 oral rat	> 5000 mg/kg OECD 401
LD50 dermal rat	> 5000 mg/kg OECD 402
LC50 inhalation rat	>4.4 mg/l/4h

Skin corrosion/irritation : Not classified  
 No skin irritation.  
 No eye irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure)

Bifenazate (149877-41-8)	
	<p>Species: rat, male            Application Route: Oral            Target Organs: Liver, spleen, thymus gland, lymph node, Bone marrow            Dose: 0, 33.3, 66.4, 319.4 mg/kg bw/            Exposure time: (28 d)            NOEL: &lt; 33.3 mg/kg            Lowest observable effect level: 33.3 mg/kg            Method: OECD Test Guideline 407.</p>
	<p>Species: rat, female            Application Route: Oral            Target Organs: Liver, spleen, thymus gland, lymph node, Bone marrow            Dose: 0, 35.3, 81.6, 396.5 mg/kg bw/            Exposure time: (28 d)            NOEL: &lt; 33.3 mg/kg            Lowest observable effect level: 33.3 mg/kg            Method: OECD Test Guideline 407.</p>
	<p>Species: dog, male            Application Route: Oral            Target Organs: Liver, Blood, Kidney            Dose: 0, 1.0, 8.9, 23.9 mg/kg bw/            Exposure time: (1 y)            NOEL: 1 mg/kg            Lowest observable effect level: 8.9 mg/kg            Method: OECD Test Guideline 452.</p>
	<p>Species: dog, female            Application Route: Oral            Target Organs: Liver, Blood, Kidney            Dose: 0, 1.1, 10.4, 29.2 mg/kg bw/            Exposure time: (1 y)            NOEL: 1 mg/kg            Lowest observable effect level: 8.9 mg/kg            Method: OECD Test Guideline 452.</p>
	<p>Species: mouse, male            Application Route: Oral            Target Organs: Liver, spleen, thymus gland, lymph node, Bone marrow            Dose: 0,200,1000,2500 and 5000 ppm            Exposure time: (28 d)            NOEL: &lt; 33.9 mg/kg            Lowest observable effect level: 33.9 mg/kg            Method: OECD Test Guideline 407.</p>



**Bifenazate (149877-41-8)**

Species: mouse, female  
 Application Route: Oral  
 Target Organs: Liver, spleen, thymus gland, lymph node,  
 Bone marrow  
 Dose: 0,200,1000,2500 and 5000 ppm  
 Exposure time: (28 d)  
 NOEL: < 46.7 mg/kg  
 Lowest observable effect level: 33.9 mg/kg  
 Method: OECD Test Guideline 407.

**FLORAMITE 240 SC**

LC50 Fishes ( <i>Oncorhynchus mykiss</i> )	1.4 mg/l (96 h)
EC50 <i>Daphnia magna</i>	1.4 mg/l
EC50 Algae	1.3 mg/l Algae (72 h)

Aspiration hazard : Not classified

Other information : The toxicological data refer to a similar formulation.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**FLORAMITE 240 SC**

LC50 Fishes ( <i>Oncorhynchus mykiss</i> )	1.4 mg/l (96 h)
EC50 <i>Daphnia magna</i>	1.4 mg/l (48h)
EC50 Algae	1.3 mg/l (72 h)

**Bifenazate (149877-41-8)**

IC50: > 3.82 mg/l  
 Exposure time: 7 d  
 Species: *Lemna gibba*  
 Analytical monitoring: yes

NOEC: > 3.82 mg/l  
 Exposure time: 7 d  
 Species: *Lemna gibba*  
 Analytical monitoring: yes

NOEC: 0.25 mg/l  
 Exposure time: 96 h  
 Species: *Selenastrum capricornutum* (green algae)

ErC50: > 2.02 mg/l  
 Exposure time: 96 h  
 Species: *Selenastrum capricornutum* (green algae)

EbC50: 0.9 mg/l  
 Exposure time: 96 h

Species: *Selenastrum capricornutum* (green algae)

NOEC: 0.52 mg/l

Exposure time: 96 h

Species: *Navicula pelliculosa*

EbC50: 0.82 mg/l

Exposure time: 96 h

Species: *Navicula pelliculosa*

ErC50: 1.4 mg/l

Exposure time: 96 h

Species: *Navicula pelliculosa*

NOEC(b): 0.53 mg/l

Exposure time: 96 h

Species: *Anabaena flos-aquae* (cyanobacterium)

NOEC(r): 1.13 mg/l

Exposure time: 96 h

Species: *Anabaena flos-aquae* (cyanobacterium)

EbC50: 1.8 mg/l

Exposure time: 96 h

Species: *Anabaena flos-aquae* (cyanobacterium)

ErC50: > 4.48 mg/l

Exposure time: 96 h

Species: *Anabaena flos-aquae* (cyanobacterium)

NOEC: 0.2 mg/l

Exposure time: 96 h

Species: *Skeletonema costatum*

EbC50: 0.3 mg/l

Exposure time: 96 h

Species: *Skeletonema costatum*

ErC50: 0.36 mg/l

Exposure time: 96 h

Species: *Skeletonema costatum*

Bifenazate (149877-41-8)	M factor
Acute Aquatic toxicity	1
Chronic aquatic toxicity	1

**12.2. Persistence and degradability**

**FLORAMITE 240 SC**

Persistence and degradability : Not readily biodegradable.

**Bifenazate (149877-41-8)**

Persistence and degradability : Not readily biodegradable.

**12.3. Bioaccumulative potential**

No additional information available.

**12.4. Mobility in soil**

**FLORAMITE 240 SC**

Surface tension : 42.1 mN/m 25 °C

**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**

Other information : This information is derived from the properties of the individual components.

**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.

**SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

**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. (Bifenazate)  
Transport document description : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.( Bifenazate), 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 :



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**

No additional information available

**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**

No additional information available

**SECTION 16: Other information**

Change date	Previous Version	Section	Changed Item	Change	Comments
05/09/2014	2.0	2.2	P302+P352, P501	Removed	
			P333+P313, P363, P391	Added	
		9	Colour: Off-white	Modified	
		12	M Factor:1	Added	

14/11/2014	2.1	2.2	EUH208	Modified	
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Full text of R-, H- and EUH-phrases:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H317	May cause an allergic skin reaction
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
R43	May cause sensitization by skin contact.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
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*