SAFETY DATA SHEET

FLORAMITE® 240 SC

Version	Revision Date:	MSDS Number:	Country: GB
4.6	21.03.2016	400000003977	Language: EN

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

1.1 Product identifier

Trade name : FLORAMITE® 240 SC

Product code : 400000003977

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

Use of the Substance/Mixture : Plant protection agent, Miticide

Recommended restrictions on use : Agriculture, For professional users only.

1.3 Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Company**:**

Arysta LifeScience Great Britain Ltd.
Brooklands Farm, Cheltenham Road
Evesham, Worcestershire
United Kingdom
WR11 2LS
Telephone : +44 1386 425500

Prepared by

sds.request@arysta.com

Further information for the safety data sheet :
sds.request@arysta.com

1.4 Emergency telephone number

Emergency telephone number**:**

+44 (0) 1235 239 670 (NCEC)
For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin sensitisation, Category 1 — H317: May cause an allergic skin reaction.

Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Warning

Hazard statements	:		
		H317	May cause an allergic skin reaction.
		H373	May cause damage to organs through prolonged or repeated exposure.
		H411	Toxic to aquatic life with long lasting effects.

Precautionary statements	:		
		Prevention:	
		P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
		P273	Avoid release to the environment.
		P280	Wear protective gloves.
		Response:	
		P314	Get medical advice/ attention if you feel unwell.
		P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
		P363	Wash contaminated clothing before reuse.
		P391	Collect spillage.

Hazardous components which must be listed on the label:
Bifenazate

1,2-benzisothiazol-3(2H)-one

Supplemental Hazard Statements	:	EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

2.3 Other hazards

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Bifenazate 240 g/L

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Bifenazate	149877-41-8 442-820-5	Skin Sens. 1; H317 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	22.6

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled : Move to fresh air.
Obtain medical attention.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with warm water and soap.
If symptoms persist, call a physician.

In case of eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If symptoms persist, call a physician.

If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : irritant effects
sensitising effects
Symptoms may be delayed.

Risks : May cause an allergic skin reaction.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : 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 (CO2)
Dry chemical

Unsuitable extinguishing media : Water spray jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : No information available.

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Complete suit protecting against chemicals Full protective flameproof clothing

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear suitable protective equipment.
Avoid contact with skin and eyes.

6.2 Environmental precautions

Environmental precautions : Do not allow material to contaminate ground water system.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.
Dam up.
Large spills should be collected mechanically (remove by pumping) for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid inhalation, ingestion and contact with skin and eyes.
Use only in area provided with appropriate exhaust ventilation.
Wash thoroughly after handling.

Hygiene measures : Ensure adequate ventilation, especially in confined areas.
Remove and wash contaminated clothing before re-use. Han-

dle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep in a dry, cool place.
Other data	:	Stable under recommended storage conditions. Stable at normal ambient temperature and pressure.

7.3 Specific end use(s)

Specific use(s)	:	Plant protection agent

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Engineering measures

effective ventilation in all processing areas
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye protection	:	Safety glasses with side-shields
Hand protection Remarks	:	Impervious gloves
Skin and body protection	:	Impervious clothing
Respiratory protection	:	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	off-white, to, tan
Odour	:	slight, sweet
Odour Threshold	:	No data available
pH	:	5 - 9
Melting point/range	:	Not applicable
Boiling point/boiling range	:	> 100 °C

Flash point	:	> 104 °C
Evaporation rate	:	No data available
Upper explosion limit	:	Not explosive
Lower explosion limit	:	Not explosive
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	1.050 - 1.070 (25 °C)
Density	:	> 1 g/cm3
Solubility(ies)		
Water solubility	:	dispersible
Solubility in other solvents	:	Description: miscible with most organic solvents
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	> 399 °C
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	300 - 700 mPa.s (20 °C)
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive

9.2 Other information

Self-Accelerating decomposition temperature (SADT)	:	Method: No information available.
Surface tension	:	42.1 mN/m, 25 °C
Oxidizing potential	:	The substance or mixture is not classified as oxidizing.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Hazardous polymerisation does not occur.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

Burning produces noxious and toxic fumes.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, male): > 5,000 mg/kg
GLP: yes

LD50 (Rat, female): > 2,000 mg/kg
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 1.94 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg
GLP: yes

Components:

Bifenazate:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

LD50 (Mouse, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : LC50 (Rat, male and female): > 4.4 mg/l

Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Skin corrosion/irritation

Product:

Species: Rabbit
Result: No skin irritation
GLP: yes

Components:

Bifenazate:
Species: Rabbit
Exposure time: 4 h
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation

Product:

Species: Rabbit
Result: No eye irritation
GLP: yes

Components:

Bifenazate:
Species: Rabbit
Exposure time: 48 h
Assessment: No eye irritation
Method: OECD Test Guideline 405
Result: No eye irritation
GLP: yes

Respiratory or skin sensitisation

Product:

Species: Guinea pig
Assessment: May cause sensitisation by skin contact.

GLP: yes

Components:

Bifenazate:
Test Type: Maximisation Test (GPMT)
Species: Guinea pig
Assessment: May cause sensitisation by skin contact.
Method: OECD Test Guideline 406
GLP: yes

Germ cell mutagenicity

Product:

Germ cell mutagenicity- Assessment	:	Not classified due to lack of data.

Components:

Bifenazate:

Genotoxicity in vitro	:	Test Type: Ames test Metabolic activation: with and without metabolic activation Result: negative GLP: yes
	:	Test Type: In Vitro mammalian Cell Gene Mutation Test Metabolic activation: with and without metabolic activation Result: negative GLP: yes
	:	Test Type: Chromosome aberration test in vitro Metabolic activation: with and without metabolic activation Result: negative GLP: yes
Genotoxicity in vivo	:	Test Type: In vivo micronucleus test Species: Mouse Cell type: Bone marrow Exposure time: 24 h Dose: 0, 96, 192, 384 mg/kg Result: negative GLP: yes
Germ cell mutagenicity- Assessment	:	Animal testing did not show any mutagenic effects.

Carcinogenicity

Product:

Carcinogenicity - Assessment	:	Not classified due to lack of data.

Components:

Bifenazate:
Species: Rat, (male)
Application Route: Oral
Exposure time: 104 weeks
Dose: 0, 1.0, 3.9, 9.7 mg/kg bw/d
NOAEL: 1.0 mg/kg bw/day
LOAEL: 3.9 mg/kg body weight
Method: OECD 453
Target Organs: spleen, Blood
GLP: yes

Species: Rat, (female)
Application Route: Oral
Exposure time: 104 weeks
Dose: 0, 1.2, 4.8, 9.7 mg/kg bw/d
NOAEL: 1.2 mg/kg bw/day
LOAEL: 3.9 mg/kg body weight
Method: OECD 453
GLP: yes

Species: Mouse, (male)
Application Route: Oral
Exposure time: 78 weeks
Dose: 0, 1.5, 15.4, 35.1 mg/kg bw/d
NOAEL: 1.5 mg/kg bw/day
LOAEL: 15.4 mg/kg body weight
Method: OECD Test Guideline 451
GLP: yes

Species: Mouse, (female)
Application Route: Oral
Exposure time: 78 weeks
Dose: 0, 1.9, 19.7, 35.7 mg/kg bw/d
NOAEL: 1.9 mg/kg bw/day
LOAEL: 15.4 mg/kg body weight
Method: OECD Test Guideline 451
GLP: yes

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment : Not classified due to lack of data.

Components:

Bifenazate:

Effects on fertility : Test Type: Two-generation study
Species: Rat
Application Route: Oral

Fertility: NOEL: > 15 mg/kg bw/day
Early Embryonic Development: No observed adverse effect level: > 15 mg/kg bw/day
GLP: yes

Effects on foetal development : Species: Rat, female
Application Route: Oral
Dose: 0, 10, 100, 500 mg/kg bw/d
General Toxicity Maternal: 10 mg/kg bw/day
Teratogenicity: No observed adverse effect level: > 500 mg/kg bw/day
Method: OECD Test Guideline 414

Species: Rabbit, female
Application Route: Oral
Dose: 0, 10, 50, 200 mg/kg bw/d
General Toxicity Maternal: > 15 mg/kg bw/day
Teratogenicity: No observed adverse effect level: > 200 mg/kg bw/day
Method: OECD Test Guideline 414

Reproductive toxicity - Assessment : No toxicity to reproduction
No effects on or via lactation

STOT - single exposure

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

Components:
Bifenazate:
Assessment: Based on available data, the classification criteria are not met.

STOT - repeated exposure

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

Components:
Bifenazate:
Assessment: Based on available data, the classification criteria are not met.

Repeated dose toxicity

Components:
Bifenazate:
Species: Rat, male and female
NOAEL: < 33.3 mg/kg
LOAEL: 33.3 mg/kg
Application Route: Oral
Exposure time: 28 d

Method: OECD Test Guideline 407
GLP: yes
Target Organs: Liver, spleen, thymus gland, lymph node, Bone marrow

Species: Dog, male and female
NOAEL: 1 mg/kg
LOAEL: 8.9 mg/kg
Application Route: Oral
Exposure time: 1 y
Method: OECD Test Guideline 452
GLP: yes
Target Organs: Liver, Blood, Kidney

Species: Mouse, male and female
NOAEL: < 33.9 mg/kg
LOAEL: 33.9 mg/kg
Application Route: Oral
Exposure time: 28 d
Method: OECD Test Guideline 407
GLP: yes
Target Organs: Liver, spleen, thymus gland, lymph node, Bone marrow

Species: Rat, male and female
LOAEL: 400 mg/kg
Application Route: Dermal
Exposure time: 21 - Days
Method: OECD Test Guideline 410
GLP: yes
Target Organs: spleen, Blood

Species: Rat, male
LOAEL: 34.6 mg/kg
Application Route: Oral
Exposure time: 2 - week
GLP: yes
Remarks: No significant adverse effects were reported

Species: Rat, female
LOAEL: 46.7 mg/kg
Application Route: Oral
Exposure time: 2 - week
GLP: yes
Remarks: No significant adverse effects were reported

Species: Rat, male and female
NOAEL: 2.7 mg/kg
LOAEL: 13.8 mg/kg
Application Route: Oral
Exposure time: 90-day
Method: OECD Test Guideline 408
GLP: yes
Target Organs: Liver, Kidney, spleen, Adrenal gland

Species: Mouse, male

NOAEL: 8 mg/l
LOAEL: 16.2 mg/kg
Application Route: Oral
Exposure time: 90-day
Method: OECD Test Guideline 408
GLP: yes
Target Organs: spleen

Species: Mouse, female
NOAEL: 10.3 mg/l
LOAEL: 16.2 mg/kg
Application Route: Oral
Exposure time: 90-day
Method: OECD Test Guideline 408
GLP: yes
Target Organs: spleen

Species: Dog
NOAEL: 0.9 mg/l
LOAEL: 10.4 mg/kg
Application Route: Oral
Exposure time: 90-day
Method: OECD Test Guideline 408
GLP: yes
Target Organs: Blood, Liver, Urinary system

Species: Rat
30 mg/l
Application Route: inhalation (dust/mist/fume)
Exposure time: 4 - week
GLP: yes
Target Organs: Nasal inner lining, spleen

Species: Rat
> 0.2 mg/l
Application Route: inhalation (dust/mist/fume)
Exposure time: 5 - Day
GLP: no
Target Organs: Liver, thymus, spleen, Kidney, Nasal inner lining

Species: Mouse, female
LOAEL: ca.200 ppm (average dose level ~50 mg/kg/day)
Application Route: Oral
Exposure time: 28 d
Target Organs: spleen, thymus
Remarks: Bifenazate is not immunotoxic in this study at diet admixture concentrations up to 200 ppm.

Experience with human exposure

Components:

Bifenazate:
General Information : Remarks: No significant exposure of the general population is anticipated from the manufacture and normal agricultural use

of bifenazate. No epidemiological studies have been carried out or are considered necessary. -- (DAR ANNEX IIA 5.9)

Neurological effects

Components:

Bifenazate:

Remarks: In a 90-day oral toxicity study in rats (Trutter 1997c, see study 1 in section B.6.3.4), a battery of behavioural tests and observations (FOB) was performed after 7 weeks feeding and at the end of the study. No treatment related findings were observed for these FOBs. --(DAR ANNEX IIA 5.7)

Further information

Components:

Bifenazate:

Remarks: No cases of toxicity or poisoning incidents have been reported during manufacture, formulation, efficacy testing or normal horticultural/agricultural use of bifenazate. There are no known report from the open literature, relating to clinical cases and poisoning incidents with bifenazate. --(DAR ANNEX IIA 5.9)

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 1.4 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 1.4 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 1.3 mg/l Exposure time: 72 h

Components:

Bifenazate:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.58 mg/l Exposure time: 96 h Test Type: flow-through test GLP: yes LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l Exposure time: 96 h Test Type: flow-through test GLP: yes LC50 (Oncorhynchus mykiss (rainbow trout)): 0.044 mg/l Exposure time: 96 h Test Type: flow-through test Analytical monitoring: yes

GLP: yes

LC50 (Oncorhynchus mykiss (rainbow trout)): 0.21 mg/l
Exposure time: 96 h
Test Type: flow-through test
Analytical monitoring: yes
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.5 mg/l
Exposure time: 48 h
Test Type: flow-through test
GLP: yes

LC50 (Crassostrea virginica): 0.42 mg/l
Exposure time: 96 h
Test Type: flow-through test
GLP: yes

EC50 (Daphnia magna (Water flea)): 0.051 mg/l
Exposure time: 48 h
Test Type: flow-through test
Analytical monitoring: yes
GLP: yes

EC50 (Daphnia magna (Water flea)): 0.78 mg/l
Exposure time: 48 h
Test Type: Immobilization
Analytical monitoring: yes
GLP: yes

Toxicity to algae : IC50 (Lemna gibba (gibbous duckweed)): > 3.82 mg/l
Exposure time: 7 d
Analytical monitoring: yes
GLP: yes

NOEC (Lemna gibba (gibbous duckweed)): > 3.82 mg/l
Exposure time: 7 d
Analytical monitoring: yes
GLP: yes

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

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

EbC50 (Selenastrum capricornutum (green algae)): 0.9 mg/l
Exposure time: 96 h
GLP: yes

NOEC (Navicula pelliculosa): 0.52 mg/l

Exposure time: 96 h
GLP: yes

EbC50 (Navicula pelliculosa): 0.82 mg/l
Exposure time: 96 h
GLP: yes

ErC50 (Navicula pelliculosa): 1.4 mg/l
Exposure time: 96 h
GLP: yes

NOEC(b) (Anabaena flos-aquae (cyanobacterium)): 0.53 mg/l
Exposure time: 96 h
GLP: yes

NOEC(r) (Anabaena flos-aquae (cyanobacterium)): 1.13 mg/l
Exposure time: 96 h
GLP: yes

EbC50 (Anabaena flos-aquae (cyanobacterium)): 1.8 mg/l
Exposure time: 96 h
GLP: yes

ErC50 (Anabaena flos-aquae (cyanobacterium)): > 4.48 mg/l
Exposure time: 96 h
GLP: yes

NOEC (Skeletonema costatum (marine diatom)): 0.2 mg/l
Exposure time: 96 h
GLP: yes

EbC50 (Skeletonema costatum (marine diatom)): 0.3 mg/l
Exposure time: 96 h
GLP: yes

ErC50 (Skeletonema costatum (marine diatom)): 0.36 mg/l
Exposure time: 96 h
GLP: yes

M-Factor (Acute aquatic toxicity) : 1

Toxicity to fish (Chronic toxicity) : NOEC: 0.017 mg/l
Exposure time: 87 d
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: flow-through test
Analytical monitoring: yes
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.15 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Analytical monitoring: yes
GLP: yes

M-Factor (Chronic aquatic toxicity)	:	1
Toxicity to soil dwelling organisms	:	NOEC: 35.98 mg/kg Exposure time: 28 d Species: Eisenia fetida (earthworms) GLP:yes
Plant toxicity	:	> 3.82 mg/kg Test period: 7 d
Toxicity to terrestrial organisms	:	LD50: > 16.9 mg/kg Species: Anas platyrhynchos (Mallard duck) GLP:yes LD50: > 18.3 mg/kg Species: Anas platyrhynchos (Mallard duck)

12.2 Persistence and degradability

Product:

Biodegradability	:	Result: Not readily biodegradable. Remarks: Not readily biodegradable.

Components:

Bifenazate:

Biodegradability	:	Result: According to the results of tests of biodegradability this product is not readily biodegradable. Remarks: Not readily biodegradable.

12.3 Bioaccumulative potential

Components:

Bifenazate:

Partition coefficient: n-octanol/water	:	log Pow: 3.4 (25 °C)

12.4 Mobility in soil

Product:

Mobility	:	Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

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

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

ADN : UN 3082

ADR : UN 3082

RID : UN 3082

IMDG : UN 3082

IATA : UN 3082

14.2 UN proper shipping name

ADN : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Bifenazate)

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Bifenazate)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Bifenazate)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Bifenazate)

IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., Environmentally hazardous substance, liquid, n.o.s.
(Bifenazate)

14.3 Transport hazard class(es)

ADN	:	9
ADR	:	9
RID	:	9
IMDG	:	9
IATA	:	9

14.4 Packing group

ADN

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9

ADR

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(E)

RID

Packing group	:	III
Classification Code	:	M6
Hazard Identification Number	:	90
Labels	:	9

IMDG

Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F

IATA

Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964
Packing instruction (LQ)	:	Y964
Packing group	:	III
Labels	:	Miscellaneous

14.5 Environmental hazards

ADN

Environmentally hazardous	:	yes

ADR

Environmentally hazardous	:	yes

RID

Environmentally hazardous	:	yes

IMDG

Marine pollutant	:	yes

14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants	:	Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
E2	ENVIRONMENTAL HAZARDS	200 t	500 t

Water contaminating class (Germany)	:	WGK 3 highly water endangering Classification according VwVwS, Annex 4.

15.2 Chemical Safety Assessment

No information available.

SECTION 16: Other information

Full text of H-Statements

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.

Full text of other abbreviations

Aquatic Acute	:	Acute aquatic toxicity
Aquatic Chronic	:	Chronic aquatic toxicity
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure

(Q)SAR - (Quantitative) Structure Activity Relationship; ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging

Regulation; Regulation (EC) No 1272/2008; DIN - Standard of the German Institute for Standardisation; ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TRGS - Technical Rule for Hazardous Substances; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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