

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 and Regulation (EC) No. 453/2010



## NANDO 500 SC

Version 4.0

Revision Date 16.02.2015

Print Date 16.02.2015

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

#### 1.1 Product identifier

Trade name : NANDO 500 SC

Product code : CA 2386

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

Use of the Substance/Mixture : Fungicide

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

Company : Nufarm S.A.S  
28 boulevard Zéphirin Camélinat  
92230 Gennevilliers  
Telephone : +330140855050  
Telefax : +330147922545  
E-mail address : FDS@fr.nufarm.com  
Responsible/issuing person

#### 1.4 Emergency telephone number

Nufarm S.A.S. : +33 1 40 85 51 15  
National emergency telephone number : not available

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Reproductive toxicity, Category 2	H361d: Suspected of damaging the unborn child.
Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 1	H410: Very toxic to aquatic life with long lasting effects.

##### Classification (67/548/EEC, 1999/45/EC)

Harmful	R38: Irritating to skin.
Dangerous for the environment	R43: May cause sensitisation by skin contact.
	R63: Possible risk of harm to the unborn child.
	R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 2.2 Label elements

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### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms	:				
Signal word	:	Warning			
Hazard statements	:	H315 H317 H361d H410	Causes skin irritation. May cause an allergic skin reaction. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects.		
Precautionary statements	:	<b>P102</b> <b>Prevention:</b> P280  <b>Response:</b> P308 + P313  P362 P391 <b>Storage:</b> P405	Keep out of reach of children.  Wear protective gloves/ protective clothing/ eye protection/ face protection.  IF exposed or concerned: Get medical advice/ attention. Take off contaminated clothing. Collect spillage.  Store locked up.		

### Additional Labelling:

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

### 2.3 Other hazards

A Chemical Safety Assessment is not required for this mixture.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Suspension concentrate (SC)

#### Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Fluazinam	79622-59-6	Xn; R20 R37/38 R41 R43	Acute Tox. 4; H332 STOT SE 3; H335 Skin Irrit. 2; H315 Eye Dam. 1; H318	40 %

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		R63 N; R50/53	Skin Sens. 1; H317 Repr. 2; H361 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	
Ammonium salt of polyarylphenyl ether sulphate	119432-41-6	Xi; R36-R52/53	Eye Irrit. 2; H319 Aquatic Chronic 3; H412	1% - 5%
20% aqueous dipropylene glycol solution of 1,2 benziisothiazolin-3-one	2634-33-5	C-N; Xn-C-Xi-; R22-R34-R43- R50	Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Acute 1; H400	0% - 0,1%

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- If inhaled : Move to fresh air.
- In case of skin contact : Take off all contaminated clothing immediately.  
Wash immediately affected parts with plenty of water and soap.
- In case of eye contact : Rinse immediately with plenty of water for at least 15 minutes.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water.  
Do NOT induce vomiting.  
If swallowed, seek medical advice immediately and show this container or label.

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

- Symptoms : No information available.

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

- Treatment : Symptomatic treatment

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

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Suitable extinguishing media : Water spray, Dry powder, Foam, Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media : High volume water jet

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

Specific hazards during firefighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health. In the event of fire (CO<sub>x</sub>) may be formed.

Hazardous combustion products :

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.

Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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## SECTION 6: Accidental release measures

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

Personal precautions : Refer to protective measures listed in sections 7 and 8. Never return spills in original containers for re-use.

### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, universal binder ...).  
Pick up and transfer to properly labelled containers.

### 6.4 Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

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- Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8.
- Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and at the end of workday.

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

- Requirements for storage areas and containers : Keep out of reach of children. Store in original container. Store at temperature above - 5°C
- Advice on common storage : Keep away from food, drink and animal feeding stuffs.

### 7.3 Specific end use(s)

- Specific use(s) : none

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Further information	:	60: Substances used as active ingredients in pesticides are listed under their systematic chemical names and/or their (ISO) common names. These may sometimes be used as parts of the names of proprietary pesticide formulations. In all cases, the exposure limit applies to the specific active ingredient in the workplace atmosphere and not the formulation as a whole.
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If the sub-section is blank, no value is applicable.

### 8.2 Exposure controls

#### Personal protective equipment

- Eye protection : Safety glasses
- Hand protection
- Material : Nitrile gloves
- Skin and body protection : Long sleeved clothing

#### Environmental exposure controls

- General advice : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

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### SECTION 9: Physical and chemical properties

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

Appearance	: viscous, liquid
Colour	: <b>opaque, yellow</b>
Odour	: odourless
Odour Threshold	: no data available
pH	: 7,95, Concentration: 10,00 g/l Method: CIPAC MT75.3
Melting point/range	: 117 °C Active substance
Boiling point/boiling range	: Decomposition: Decomposes below the boiling point. Active substance
Flash point	: Method: EEC A9 does not flash
Evaporation rate	: not applicable
Flammability (solid, gas)	: not applicable
Lower explosion limit	: no data available
Upper explosion limit	: no data available
Vapour pressure	: negligible
Relative vapour density	: not applicable
Relative density	: no data available
Density	: 1,251 g/cm <sup>3</sup> at 20 °C

Method: OECD Test Guideline 109

Water solubility	: <b>negligible, Test on active ingredient at 20 °C pH: 7</b>
Solubility in other solvents	: <b>853 g/l Test on active ingredient at 25 °C Medium: Acetone</b>

Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: > 400 °C Method: EEC A15

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Ignition temperature	:	no data available
Thermal decomposition	:	no data available
Viscosity, dynamic	:	29,5 - 1.321 mPa.s at 20 °C Method: OECD Test Guideline 114  24,3 - 925 mPa.s at 40 °C
Viscosity, kinematic	:	no data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

### 9.2 Other information

|| Surface tension : 42,1 mN/m, 25 °C

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under recommended storage conditions.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

Conditions to avoid : No decomposition if stored and applied as directed.

### 10.5 Incompatible materials

Materials to avoid : no data available

### 10.6 Hazardous decomposition products

Hazardous decomposition products : no data available  
Other information : no data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product

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Acute oral toxicity	: LD50 rat: > 2.000 mg/kg
Acute inhalation toxicity	: LC50 rat: > 0,967 mg/l Method: OECD Test Guideline 403 maximum concentration technically achievable
Acute dermal toxicity	: LD50 rat: > 2.000 mg/kg Method: OECD Test Guideline 402
Skin corrosion/irritation	: Species: rabbit Result: Irritating to skin. Method: OECD Test Guideline 404
Serious eye damage/eye irritation	: Species: rabbit Result: No eye irritation Method: OECD Test Guideline 405
Respiratory or skin sensitisation	: Species: guinea pig Result: Causes sensitisation. Method: OECD Test Guideline 406
STOT - single exposure	: Remarks: no data available
STOT - repeated exposure	: Remarks: no data available

### **Components:**

#### **Fluazinam :**

Acute oral toxicity	: LD50 rat: > 4.100 mg/kg
Acute inhalation toxicity	: LC50 rat: > 1,1 mg/l Exposure time: 4 h
Acute dermal toxicity	: LD50 rat: > 2.000 mg/kg
Skin corrosion/irritation	: Species: rabbit According to the classification criteria of the European Union, the product is not considered as being a skin irritant.
Serious eye damage/eye irritation	: Species: rabbit Result: Severe eye irritation
Respiratory or skin sensitisation	: Species: guinea pig Result: Causes sensitisation.
Carcinogenicity	: Species: Not carcinogenic



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Reproductive toxicity	:	NOAEL: F2: 7,26 mg/kg
Teratogenicity	:	Species: rat 10 mg/kg  Species: rabbit 1 mg/kg
Further information	:	Mutagenicity Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0,14 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,042 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 0,11 mg/l Exposure time: 72 h

Toxicity to terrestrial organisms	:	LC50: > 1.000 mg/kg Exposure duration: 14 d Species: <i>Eisenia fetida</i> (earthworms)
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LC50: > 100 µg/bee, oral  
Species: *Apis mellifera* (bees)

LC50: > 100 µg/bee, contact  
Species: *Apis mellifera* (bees)

#### Components:

Fluazinam :

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Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 55 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 220 mg/l Exposure time: 48 h
Toxicity to algae	: EbC50 (Pseudokirchneriella subcapitata (green algae)): 160 mg/l Exposure time: 72 h
Toxicity to terrestrial organisms	: LD50: 1.782 mg/kg Species: Colinus virginianus (Bobwhite quail)

### 12.2 Persistence and degradability

#### Product:

Biodegradability : no data available

Physico-chemical removability : no data available

#### Components:

##### **Fluazinam :**

Biodegradability : Not readily biodegradable

Stability in water : Degradation half life: 4,5 d at 25 °C  
pH: 7

Stability in soil : Low leaching potential

### 12.3 Bioaccumulative potential

#### Product:

Bioaccumulation : no data available

#### Components:

##### **Fluazinam :**

Bioaccumulation : Bioconcentration factor (BCF): 1.090

Partition coefficient: n-octanol/water : log Pow: 4,03 at 20 °C

### 12.4 Mobility in soil

#### Product:

Mobility : no data available

Surface tension : 42,1 mN/m at 25 °C

#### Components:

##### **Fluazinam :**

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : A Chemical Safety Assessment is not required for this

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mixture.

### 12.6 Other adverse effects

#### Product:

Additional ecological information : No other known adverse effects on the environment

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Do not empty into drains.  
Dispose of in accordance with local regulations.

Contaminated packaging : Do not re-use empty containers.  
Dispose of empty packages through the specific collection services.

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## SECTION 14: Transport information

### 14.1 UN number

ADR : 3082  
IMDG : 3082  
IATA : 3082

### 14.2 Proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID,  
N.O.S. (Fluazinam)  
IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID,  
N.O.S.  
IATA : ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID,  
N.O.S.

### 14.3 Transport hazard class

ADR : 9  
IMDG : 9  
IATA : 9

### 14.4 Packing group

ADR  
Hazard Identification Number : 90  
Labels : 9  
Tunnel restriction code : (E)

#### **IMDG**

Packaging group : III  
Labels : 9  
EmS Number : F-A,S-F

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### IATA

Packaging group : III  
Labels : 9

### 14.5 Environmental hazards

#### ADR

Environmentally hazardous : yes

#### IMDG

Marine pollutant : yes

#### IATA

Environmentally hazardous : yes

### 14.6 Special precautions for user

For personal protection see section 8.

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

Remarks : not applicable

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## SECTION 15: Regulatory information

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

Period of re-entry on the plot: : 48 h

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this mixture.

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## SECTION 16: Other information

### Full text of R-Phrases

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Eye Dam.	Serious eye damage
Eye Irrit.	Eye irritation
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.

### Full text of H-Statements

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H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### Further information

Other information : Alterations are indicated in the left hand margin by: II  
This version replaces all previous versions.

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.