

NANDO[®] 500SC



PEEL BACK FOR DIRECTIONS FOR USE LEAFLET

A suspension concentrate containing 500 g/L Fluazinam for the control of potato blight and protection against tuber blight.

Safety Information

WARNING

Causes skin irritation.
May cause an allergic skin reaction.

Suspected of damaging the unborn child.

Very toxic to aquatic life with long lasting effects.

If medical advice is needed have product container or label at hand.
IF ON SKIN: wash with plenty of soap and water.

Avoid breathing vapours/spray.

Wash hands thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty triple rinsed containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.

Additional Safety Phrases

To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies

Do not contaminate water with the product or its container. Do not clean application equipment near surface water.

Avoid contamination via drains from farmyards and roads.



PCS No. 05387

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL FUNGICIDE

Crop:	Potatoes (Early and maincrop)
Maximum Individual Dose:	400 ml product/ha
Maximum Number of Applications:	10
Maximum Total Dose:	4.0 Litres product/ha/crop
Latest Time of Application:	7 days before harvest

Other Specific Restrictions:

Non-returnable containers must not be re-used for any purpose.

A minimum interval of 7 days must be observed between applications at 300 ml product/ha and a minimum interval of 10 days between applications at 400 ml product/ha.

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE.

FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

Nufarm UK Limited, Wyke Lane, Wyke, Bradford, West Yorkshire BD12 9EJ. UK.

Technical helpline telephone number:

+44 (0)1274 694714.

24-hour emergency telephone number:

+44 (0)1274 696603.

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PROTECT FROM FROST
SHAKE WELL BEFORE USE

FOR PROFESSIONAL USE ONLY

B4085-001 A0314



Nufarm

Grow a better tomorrow.

SAFETY PRECAUTIONS

Operator Protection

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

TAKE OFF IMMEDIATELY all contaminated clothing.

WASH CONCENTRATE from skin and eyes immediately.

WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH HANDS AND EXPOSED SKIN before meals and after work.

IF YOU FEEL UNWELL seek medical advice (show label where possible).

Environmental Protection

To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies

Do not contaminate water with the product or its container. Do not clean application equipment near surface water.

Avoid contamination via drains from farmyards and roads.

RISK TO NON-TARGET INSECTS OR OTHER ARTHROPODS. See Directions for use

Storage and disposal

KEEP IN ORIGINAL CONTAINER, tightly closed in a safe place.

DO NOT RE-USE CONTAINER FOR ANY PURPOSE.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times.

Add washings to sprayer at time of filling and dispose of safely.

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be carefully read in order to obtain safe and successful use of this product.

OPERATOR ADVICE

- NANDO 500SC may cause transient skin reaction in a small number of sensitive individuals.
- Do not come in contact with spray drift.
- Wash all protective clothing after use, preferably daily, and do not allow contact of contaminated clothing with unprotected skin.
- Ensure sprayer is washed down daily and do not allow contact between contaminated sprayer parts and unprotected skin.
- When entering crops do not allow contact of unprotected skin with treated foliage.
- People who have been sensitised by NANDO 500SC should not use or have further contact with NANDO 500SC or any other product containing Fluzinam.
- Ensure spraying is carried out under good conditions and that the sprayer is adjusted to minimise drift.
- Avoid spraying within 5 m of the field boundary to reduce effects on non-target insects or other arthropods.

DISEASE RESISTANCE

Disease control may be reduced if strains of pathogen less sensitive to NANDO 500SC develop.

When fungicides with the same mode of action are used repeatedly over several years in the same field, naturally occurring less sensitive strains may survive, propagate and become dominant in that field. It is therefore advised that wherever possible spray programmes should include fungicides with differing modes of action.

DISEASES CONTROLLED

Potato blight (*Phytophthora infestans*)

Protection against tuber blight

CROP SPECIFIC INFORMATION

Maximum Individual Dose: 300 to 400 ml product/ha

Maximum Total Dose: 3.0 L product/ha/crop

Water volume: 200 –500 L water/ha

Potato Blight

NANDO 500SC is a protectant fungicide and the spray programme must therefore start BEFORE the potato blight enters the crop.

First Application.	Spray at the first blight warning or when conditions are favourable for the disease, whichever is sooner. In the absence of weather conditions favourable to disease development the first application should be made just before the potato foliage of adjacent plants in the rows begin to meet.	
Second and repeat applications	Dependent on the risk of potato blight	
	Low Risk	High risk
	Make applications as a precautionary measure. Apply at 14 day intervals	Following 2 warm, humid days or in irrigated crops Apply at 7-10 day intervals

Tuber Blight

To reduce the risk of problems with tuber blight at harvest NANDO 500SC should be used regularly at the recommended intervals from full canopy development to complete haulm desiccation.

Varieties: All varieties of early and maincrop potatoes may be treated. On crops grown for processing consult your processor before use.

FIRST AND SECOND EARLY CROPS

A blight protection programme should be applied right up to the harvest or haulm desiccation to protect early crops and reduce disease risk to later crops.

MAINCROPS

Season long programmes are required to limit foliar blight development. There may be more of a risk of infecting tubers at harvest, particularly in high risk years. Completion of the blight programme should include a complete haulm desiccant, and lifting of the crop should not take place for at least 10 days after complete kill of the haulm. Tubers intended for storage should not be lifted while there is any green tissue on the leaves or stem bases.

MIXING AND SPRAYING

Part fill the spray tank with clean water and commence agitation. Add the required amount of product to the sprayer and fill up to the required volume with water. Maintain agitation throughout the spraying operation. Wash out empty container thoroughly and add washings to the sprayer.

Use adequate water to ensure complete coverage of the foliage and stems, increasing the volume as haulm growth progresses, particularly in dense crops and under high blight risk conditions. Ensure that the sprayer is clean and calibrated correctly, to give even application. Apply at the recommended water volumes using a MEDIUM quality spray (as defined by British Crop Protection Council guidelines).

Do not leave the spray liquid in the sprayer for long periods.

Integrate with other appropriate (cultural) control methods (e.g. prevent re-growth on potato dumps, destroy volunteers, use disease free seed, and ensure soil ridges protect tubers).

COMPANY ADVISORY INFORMATION

ACKNOWLEDGEMENTS

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TERMS AND CONDITIONS OF SUPPLY, SALE OR USE

All goods supplied by Nufarm UK Ltd. are high grade and we believe them to be suitable for the purpose for which we expressly supply them: but as we cannot exercise any control over their mixing, use or application which may affect the performance of the goods all conditions and warranties statutory or otherwise as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us or our Associate Companies for any damage or injury whatsoever arising from their storage, handling, re-application or use. These conditions cannot be varied by our staff, our agents or the re-sellers of the product whether or not they supervise or assist in the use of such goods.

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: Nando 500SC

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

Use: Fungicide

1.3. Details of the supplier of the safety data sheet

Nufarm UK Limited, Wyke Lane, Wyke, Bradford, West Yorkshire BD12 9EJ United Kingdom
Telephone: +44 (0)1274 691234 Telefax: +44 (0)1274 691176 E-mail address: info@uk.nufarm.com

Emergency telephone number: +44 (0)1274 696603

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

EEC/99/45:	Xi	R38 - Irritating to skin.
	Xi	R43 - May cause sensitization by skin contact.
	Xn	R63 - Possible risk of harm to the unborn child.
	N	R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
EG_1272/08:	SkinIrrit.2	H315 - Causes skin irritation.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	Repr.2	H361d - Suspected of damaging the unborn child.
	AquaticAcute1	H400 - Very toxic to aquatic life.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.

2.2. Label elements

REGULATION (EC) No 1272/2008

Pictogram:



GHS07



GHS08



GHS09

Signal word: Warning

- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H361d - Suspected of damaging the unborn child.
- H410 - Very toxic to aquatic life with long lasting effects.
- P101 - If medical advice is needed, have product container or label at hand.
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
- P264 - Wash hands and face thoroughly after handling.
- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P501 - Dispose of contents/ container to a licensed hazardous-waste disposal contractor or collection site except for empty triple rinsed containers which can be disposed of as non hazardous waste.

2.3. Other hazards

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: suspension concentrate (SC) contains 500 g/L Fluzinam

Components:

Fluzinam		
CAS-No.:	79622-59-6	
EINECS-No. / ELINCS No.:	-	
REACH No.:	-	
Concentration:	40.0 % (w/w)	
Classification:		
EG_1272/08:	SkinIrrit.2	H315 - Causes skin irritation.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	EyeDam.1	H318 - Causes serious eye damage.
	AcuteTox.4	H332 - Harmful if inhaled.
	Repr.Cat.2	H361 - Suspected of damaging fertility or the unborn child.
	AquaticAcute1	H400 - Very toxic to aquatic life.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects..

Ammonium salt of poly(vinyl) ether sulphate

CAS-No.:	119432-41-6
EINECS-No. / ELINCS No.:	-
REACH No.:	-
Concentration:	1% - 5% (w/w)
Classification:	
EG_1272/08:	EyeIrrit.2
	AquaticChronic3

H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

4. FIRST AID MEASURES

4.1. Description of first aid measures

Eye contact:

Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.

Skin contact:

Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water.

Inhalation:

Move affected person(s) into fresh air. If symptoms persist, call a physician.

Ingestion:

Do NOT induce vomiting. Obtain medical attention.

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: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO₂), Dry powder, Water spray
Extinguishing media which shall not be used for safety reasons: High volume water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards during fire fighting: In the event of fire (HCl, CO₂, NO_x) may be formed.

5.3. Advice for firefighters

Special protective equipment for fire-fighters: Wear self contained breathing apparatus for fire fighting if necessary.

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

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. (see Chapter 8)

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials 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). Shovel into suitable container for disposal.

Additional advice: Never return spills in original containers for re-use.

6.4. Reference to other sections

see Chapter 13

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice: Keep out of reach of children. Avoid contact with skin and eyes. Wear personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Keep out of reach of children. Protect from frost. Store in original container. Keep tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end uses

none

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

-

8.2. Exposure controls

Personal protective equipment

Respiratory protection: No special protective equipment required.

Hand protection: PVC or nitrile-rubber gloves

Eye protection: Goggles, or, Safety glasses

Skin and body protection: Lightweight protective clothing

Hygiene measures: Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. When using, do not eat, drink or smoke. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Handle in accordance with good industrial hygiene and safety practice.

Protective measures: Avoid contact with skin and eyes and inhalation of vapours. When using, do not eat, drink or smoke. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance

Form:	viscous liquid
Colour:	yellow-orange
Odour:	odourless
Flash point:	does not flash
Ignition temperature:	>400 °C
Density:	1.3 g/cm ³ at ca.20 °C
pH:	7.9 at 10 g/l
Viscosity, dynamic:	29.5 - 1,321 mPa.s at 20 °C 24.3 - 925 mPa.s at 40 °C
Surface tension:	60.9 mN/m at 20 °C

9.2. Other information

none

10. STABILITY AND REACTIVITY

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

No dangerous reaction known under conditions of normal use.

10.5. Incompatible materials to avoid

none

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute oral toxicity: LD50 rat female
Dose: > 2,000 mg/kg

Acute dermal toxicity: LD50 rat
Dose: > 2,000 mg/kg

Acute inhalation toxicity: LC50 rat
Dose: > 0.967 mg/l

Skin irritation: rabbit
Result: Irritating to skin.

Eye irritation: rabbit Result: No eye irritation

Sensitisation: Guinea-pig Result: May cause sensitization by skin contact.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Toxicity to fish: LC50 Oncorhynchus mykiss (rainbow trout)
Dose: 0.14 mg/l

Toxicity to daphnia: EC50 Daphnia magna (Water flea)
Dose: 0.042 mg/l

Toxicity to algae: ErC50 Desmododesmus subspicatus
Dose: 0.16 mg/l

Exposure time: 72 h

ErC50 Desmododesmus subspicatus
Dose: 0.39 mg/l

Exposure time: 72 h

12.2. Persistence and degradability

Biodegradability: no data available

12.3. Persistence and degradability

Bioaccumulation: no data available

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Other adverse effects

none

13. DISPOSAL CONSIDERATIONS

According to European Directive 2000/532/EC as amended :
Waste Code: 02 01 08 (agrochemical waste containing dangerous substances)

13.1. Waste treatment methods

Product: Dispose of in accordance with local regulations.
Contaminated packaging: Do not re-use empty containers. Dispose empty and triple rinsed container within a local disposing system

14. TRANSPORT INFORMATION

14.1. UN number

UN3082

14.2. Proper shipping name

UN3082 Environmentally hazardous substance, liquid, n.o.s.(Fluazinam)

14.3. Transport hazard class(es)

ADR/RID:

Class: 9

IMDG:

Class: 9

IATA-DGR:

Class: 9

14.4. Packaging group

ADR/RID:

III

IMDG:

III

IATA-DGR:

III

14.5. Environmental hazards

IMDG

Marine Pollutant: Y

14.6. Special precautions for user

none

15. REGULATORY INFORMATION

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

Other regulations: The product is classified and labelled in accordance with EU directives or respective national laws.

15.2. Chemical Safety Assessment

none

16. OTHER INFORMATION

Print Date: 2016/07/08

The date format YYYY/MM/DD is used according to ISO 8601.

(Alterations are indicated in the left hand margin by: ||)

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.

SPECIMEN -
2016 to date