Oranis®

Version 3.0
Revision Date 31.08.2012 Ref. 130000115753

This SDS adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

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

1.1. Product identifier

Product name	:	Oranis®
Synonyms	:	B12329307 DPX-YT669 250SC

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	:	Du Pont (UK) Limited Wedgwood Way Stevenage, Herts. SG1 4QN United Kingdom
Telephone	:	+44-1438-734.000
E-mail address	:	sds-support@che.dupont.com

1.4. Emergency telephone number

Emergency telephone number	:	+44-(0)8456-006.640

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Harmful	R20: Harmful by inhalation.
Dangerous for the environment	R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Harmful

Dangerous for the environment

R20	Harmful by inhalation.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Special labelling of certain substances and mixtures	To avoid risks to man and the environment, comply with the instructions for use.
S 2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feedingstuffs.
S20/21	When using do not eat, drink or smoke.
S23	Do not breathe spray.
S35	This material and its container must be disposed of in a safe way.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Registration number	Classification according Directive 67/548/EEC	Classification according Regulation 1272/2008 (CLP)	Concentration
Picoxystrobin (CAS-No.117428-22-5)			
	T;R23 N;R50/53 Xi;R36 Xn;R40	Acute Tox. 2; H330 Eye Irrit. 2; H319 Carc. 2; H351 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	25 %
Alkylnaphthalenesulfonic acid, sodium salt/formaldehyde polycondensate (CAS-No.68425-94-5)			
	Xi;R36/38	Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 1 - < 5 %

The above products are REACH compliant; Registration number(s) may not be provided because substance(s) are exempted, not yet registered under REACH or are registered under another regulatory process (biocide uses, plant protection products), etc.

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

General advice : Never give anything by mouth to an unconscious person.

: For specialist advice physicians should contact the National Poisons Information Service, (24-hr), Tel: 0870-600-6266.

Inhalation	:	Move to fresh air. Consult a physician after significant exposure. Artificial respiration and/or oxygen may be necessary.
Skin contact	:	Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. Wash contaminated clothing before re-use.
Eye contact	:	If easy to do, remove contact lens, if worn. Hold eye open and rinse slowly and gently with water for 15-20 minutes. If eye irritation persists, consult a specialist.
Ingestion	:	Obtain medical attention. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is conscious: Rinse mouth with water.

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

Symptoms	:	No cases of human intoxication are known and the symptoms of experimental intoxication are not known.

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

Treatment	:	Treat symptomatically. Consider administration of activated charcoal and a laxative.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Hazardous decomposition products formed under fire conditions. Carbon dioxide (CO2) nitrogen oxides (NOx)

5.3. Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.
Further information	:	(on small fires) If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the area contaminated. Cool containers / tanks with water spray.
	:	Prevent fire extinguishing water from contaminating surface water or the ground water system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Control access to area. Keep people away from and upwind of spill/leak. Ventilate spill area. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2. Environmental precautions

Environmental precautions : Use appropriate container to avoid environmental contamination. Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. If the spill area is porous, the contaminated material must be collected for subsequent treatment or disposal. 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 : Clean-up methods - small spillage Soak up with inert absorbent material. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean-up methods - large spillage Prevent further leakage or spillage. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Large spills should be collected mechanically (remove by pumping) for disposal. Collect leaking liquid in sealable (metal/plastic) containers. Collect and contain contaminated absorbent and dike material for disposal.

Other information : Never return spills in original containers for re-use. Dispose of in accordance with local regulations.

6.4. Reference to other sections

For personal protection see section 8., For disposal instructions see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Use only according to our recommendations. Wear personal protective equipment. For personal protection see section 8. Use only clean equipment. Provide adequate ventilation. Do not breathe vapours or spray mist. When opening containers, avoid breathing vapours that may be emanating. Prepare the working solution as given on the label(s) and/or the user instructions. Use prepared working solution as soon as possible - Do not store. To avoid spills during handling keep bottle on a metal tray. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Never return unused material to storage receptacle. Avoid exceeding of the given occupational exposure limits (see section 8).

Advice on protection against fire and explosion	:	Keep away from heat and sources of ignition. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Store in a place accessible by authorized persons only. Store in original container. Keep in properly labelled containers. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.
Advice on common storage	:	No special restrictions on storage with other products.
Other data	:	Stable under recommended storage conditions.

7.3. Specific end use(s)

Plant protection products subject to Regulation (EC) No 1107/2009.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

If sub-section is empty then no values are applicable.

Components with workplace control parameters

Type Form of exposure	Control parameters	Update	Basis	Remarks
Propane-1,2-diol (CAS-No. 57-55-6)				
TWA Particulate.	10 mg/m3	2007	EH40 WEL	
TWA Total vapour and particulates.	474 mg/m3 150 ppm	2007	EH40 WEL	

8.2. Exposure controls

Engineering measures	:	Ensure adequate ventilation, especially in confined areas. Use sufficient ventilation to keep employee exposure below recommended limits. Contains no substances with occupational exposure limit values.
Eye protection	:	Safety glasses with side-shields conforming to EN166
Hand protection	:	Material: Nitrile rubber Glove thickness: 0.3 mm Glove length: Standard glove type. Protection index: Class 6 Wearing time: > 480 min The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Please observe the

instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves. Gloves must be inspected prior to use. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Gauntlets shorter than 35 cm long shall be worn under the combination sleeve. Before removing gloves clean them with soap and water.

Skin and body protection : Manufacturing and processing work: Full protective clothing Type 6 (EN 13034) Mixer and loaders must wear: Full protective clothing Type 6 (EN 13034) Rubber apron Nitrile rubber boots (EN 13832-3 / EN ISO 20345). Spray application - outdoor: Low application (horticulture, field crops): Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345). Backpack / knapsack sprayer: Low application (horticulture, field crops): Full protective clothing Type 4 (EN 14605) Nitrile rubber boots (EN 13832-3 / EN ISO 20345). Mechanical automatized spray application in closed tunnel: No personal body protection normally required. When exceptional circumstances would require an access to the treated area before the end of re-entry periods, wear full protective clothing Type 6 (EN 13034), nitrile rubber gloves class 2 (EN 374) and nitrile rubber boots (EN 13832-3 / EN ISO 20345). To optimize the ergonomy it may be recommended to use cotton underwear when wearing some fabrics. Take advice from supplier.
Garment materials that are resistant to both water vapour and air will maximise wearing comfort. Materials should be robust to maintain the integrity and barrier in use.
The permeation resistance of the fabric must be verified independently of the « type » protection recommended, to ensure an appropriate performance level of the material adequate to the corresponding agent and type of exposure.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. All chemical protective clothing should be visually inspected prior to use. Clothing and gloves should be replaced in case of chemical or physical damage or if contaminated.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Keep away from food, drink and animal feedingstuffs. Remove clothing/PPE immediately if material gets inside. For environmental protection remove and wash all contaminated protective equipment before re-use. Dispose of rinse water in accordance with local and national regulations.

Respiratory protection : Manufacturing and processing work: Half mask with vapour filter A1 (EN 141) Mixer and loaders must wear: Half mask with vapour filter A1 (EN 141) Spray application - outdoor: Low application (horticulture, field crops): Half mask with a particle filter P2 (EN 143). Backpack / knapsack sprayer: Low application (horticulture, field crops): Half mask with a particle filter P2 (EN 143). Mechanical automatized spray application in closed tunnel: No personal respiratory protective equipment normally required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	: liquid
Colour	: off-white
Odour	: not significant
Odour Threshold	: not determined
pH	: 7.3 at 10 g/l (40 °C)
Melting point	: not applicable
Boiling point	: Not available for this mixture.
Flash point	: does not flash
Flammability (solid, gas)	: The product is not flammable.
Thermal decomposition	: Not available for this mixture.
Auto-ignition temperature	: not auto-flammable
Oxidizing properties	: The product is not oxidizing.
Explosive properties	: Not explosive
Lower explosion limit/ lower flammability limit	: Not available for this mixture.
Upper explosion limit/ upper flammability limit	: Not available for this mixture.
Vapour pressure	: Not available for this mixture.
Density	: 1.11 g/cm3 at 21 °C
Relative density	: Not available for this mixture.
Water solubility	: miscible
Partition coefficient: n-octanol/water	: not applicable
Viscosity, dynamic	: 80 mPa.s at 25 °C
Relative vapor density	: Not available for this mixture.
Evaporation rate	: Not available for this mixture.

9.2. Other information

Phys.-chem./other information : No other data to be specially mentioned.

SECTION 10: Stability and reactivity

10.1. Reactivity : No hazards to be specially mentioned.

10.2. Chemical stability : The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use. Polymerization will not occur. Heating can release hazardous gases. No decomposition if stored and applied as directed.

10.4. Conditions to avoid : Temperature : <= -5 °C To avoid thermal decomposition, do not overheat. Protect from frost.

10.5. Incompatible materials : No materials to be especially mentioned.

10.6. Hazardous decomposition products : Thermal decomposition can lead to release of irritating gases and vapours. Burning produces noxious and toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

LD50 / rat : > 2,000 mg/kg
Method: Directive 67/548/EEC, Annex V, B.1.
(Data on the product itself) Information source: Internal study report

Acute inhalation toxicity

LC50 / 4 h rat : > 5.31 mg/l
Method: OECD Test Guideline 403
(Data on the product itself) Information source: Internal study report

Acute dermal toxicity

LD50 / rat : > 2,000 mg/kg
Method: Directive 67/548/EEC, Annex V, B.3.
(Data on the product itself) Information source: Internal study report

Skin irritation

rabbit
Result: No skin irritation
Method: Directive 67/548/EEC, Annex V, B.4.
(Data on the product itself) Information source: Internal study report

Eye irritation

rabbit
Result: No eye irritation
Method: Directive 67/548/EEC, Annex V, B.5.
(Data on the product itself) Information source: Internal study report

Sensitisation

guinea pig
Result: May cause sensitization by skin contact.
Method: Directive 67/548/EEC, Annex V, B.6.
(Data on the product itself) Information source: Internal study report

Repeated dose toxicity

- Picoxystrobin
  The following effects occurred at levels of exposure that significantly exceed those expected under labeled usage conditions.

  Oral - feed rat
  Exposure time: 90 d
  Reduced body weight gain, Increased liver weight, No effect to neurotoxicity.

  Oral rat
  Exposure time: 90 d
  NOAEL: 41.7 mg/kg
  Reduced body weight gain, Increased liver weight

  Oral mouse
  Exposure time: 1.75 y
  NOAEL: 71 mg/kg
  Reduced body weight gain, Increased liver weight

  Oral dog
  Exposure time: 1 y
  NOAEL: 4.6 mg/kg
  Reduced body weight gain, altered blood chemistry

  Inhalation rat
  Exposure time: 28 d
  No toxicologically significant effects were found.

  Oral mouse
  Exposure time: 90 d
  Reduced body weight gain, Increased liver weight, Gastrointestinal effects

Mutagenicity assessment

- Picoxystrobin
  Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Did not show mutagenic effects in animal experiments.

Carcinogenicity assessment

- Picoxystrobin
  Limited evidence of carcinogenicity in animal studies

Toxicity to reproduction assessment

- Picoxystrobin
  No toxicity to reproduction

Assessment teratogenicity

- Picoxystrobin
  Animal testing showed no developmental toxicity.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish

LC50 / 96 h / Oncorhynchus mykiss (rainbow trout): 0.24 mg/l
Method: OECD Test Guideline 203
(Data on the product itself) Information source: Internal study report

Toxicity to aquatic plants

ErC50 / 72 h / Pseudokirchneriella subcapitata (green algae): 1.2 mg/l
Method: OECD Test Guideline 201
(Data on the product itself) Information source: Internal study report

Toxicity to aquatic invertebrates

EC50 / 48 h / Daphnia magna (Water flea): 0.086 mg/l
Method: OECD Test Guideline 202
(Data on the product itself) Information source: Internal study report

Toxicity to other organisms

LD50 / Apis mellifera (bees): > 0.2 mg/kg
Method: OEPP/EPPO Test Guideline 170
Oral

LC50 / Apis mellifera (bees): > 0.2 mg/kg
Method: OEPP/EPPO Test Guideline 170
Contact

Chronic toxicity to fish

- Picoxystrobin
  NOEC / 33 d / Cyprinodon variegatus (sheepshead minnow): 0.021 mg/l

Chronic toxicity to aquatic Invertebrates

- Picoxystrobin
  NOEC / 21 d / Daphnia magna (Water flea): 0.008 mg/l

12.2. Persistence and degradability

Biodegradability

Not readily biodegradable. Estimation based on data obtained on active ingredient.

12.3. Bioaccumulative potential

Bioaccumulation

Does not bioaccumulate. Estimation based on data obtained on active ingredient.

12.4. Mobility in soil

Mobility in soil

The product is not expected to be mobile in soils.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment
This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). / This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

Additional ecological information

No other ecological effects to be specially mentioned See product label for additional application instructions relating to environmental precautions.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product	:	In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging	:	Do not re-use empty containers.

SECTION 14: Transport information

ADR

14.1. UN number:	3082
14.2. UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Picoxystrobin)
14.3. Transport hazard class(es):	9
14.4. Packing group:	III
14.5. Environmental hazards:	
14.6. Special precautions for user:	
Tunnel restriction code:	(E)

DuPont internal recommendations and transport guidance: ICAO / IATA cargo aircraft only

IATA_C

14.1. UN number:	3082

14.2. UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Picoxystrobin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards :
14.6. Special precautions for user:
DuPont internal recommendations and transport guidance: ICAO / IATA cargo aircraft only

IMDG
14.1. UN number: 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Picoxystrobin)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
14.5. Environmental hazards :
Marine Pollutant
14.6. Special precautions for user:
DuPont internal recommendations and transport guidance: ICAO / IATA cargo aircraft only

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

Other regulations : The mixture is classified as dangerous in accordance with Directive 1999/45/EC.Take note of Dir 94/33/EC on the protection of young people at work.Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.Take note of Directive 96/82/EC on the control of major-accident hazards involving dangerous substances.Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

15.2. Chemical Safety Assessment

no data available

SECTION 16: Other information

Text of R-phrases mentioned in Section 3

R23	Toxic by inhalation.
R36	Irritating to eyes.
R36/38	Irritating to eyes and skin.
R40	Limited evidence of a carcinogenic effect.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under section 3.

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H351	Suspected of causing cancer.

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Other information	professional use

Further information

Before use read DuPont's safety information., Take notice of the directions of use on the label.
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Significant change from previous version is denoted with a double bar.

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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.