


**GROUP 9 | 12 FUNGICIDE**
**Product registration number:** MAPP 15129; PCS No. 06414  
**UFI:** OVXP 0D0K-C00V-T6T6

**F**

A water dispersible granule formulation containing 37.5% w/w cyproconil and 25% w/w fludioxonil.

A broad spectrum fungicide for use on fresh beans (green, runner, broad), dried beans (dwarf French bean, navy bean [phaseolus], kidney beans, haricot beans, dried broad beans), vining pea and edible podded pea, dried peas (combining peas including marrowfat), carrots, celeriac, protected and outdoor strawberry, protected and outdoor raspberry and blackberry, outdoor crops of blueberry, bilberry, cranberry, redcurrant, blackcurrant, whitecurrant, gooseberry, top fruit (apple, pear, quince, crab apple) and protected and outdoor ornamental plant production and forestry nursery.

*The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work (UK only).*

**Authorisation Holder and UK Marketing Company**

Syngenta UK Ltd  
 CPC4, Capital Park, Fulbourn, Cambridge, CB21 5XE  
 Tel: +44 (0)1223 883400

**Irish Marketing Company**

Syngenta Ireland Limited  
 Block 6, Cleaboy Business Park, Old Kilmeaden Road, Waterford  
 Tel: (051) 377203

**In case of toxic or transport emergency ring +44 (0)1484 538444 any time.**

**PROTECT FROM FROST. STORE IN A COOL, DRY PLACE.**

Apply appropriate measuring cup number  
 or remove measuring icon as necessary

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This product label is compliant with the  
 CPA Voluntary Initiative (VI) guidance (UK only).

The  
 Voluntary  
 Initiative

L1088391 GBRI/05A PPE 4160392

**1 kg**


Product names marked © or ™, the ALLIANCE FRAME  
 the SYNGENTA Logo and the PURPOSE ICON  
 are Trademarks of a Syngenta Group Company

**FOR PROFESSIONAL USE ONLY**

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

A water dispersible granule formulation containing 37.5% w/w cyprodinil and 25% w/w fludioxonil.

**Warning**

BRAND LOGO/NAME

**May cause an allergic skin reaction.**

LOGO/NOM DE MARQUE

**Very toxic to aquatic life with long lasting effects**

LOGO/DE NOME DEL PRODOTTO

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

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

If skin irritation or rash occurs: get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Collect spillage.

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

MAPF 15729 PCS No. 06474 UFI: 0VXR-ODCK-C00V-T6T6

**IMPORTANT INFORMATION - FOR USE ONLY AS AN AGRICULTURAL/ HORTICULTURAL FUNGICIDE**

Crops/situations	Maximum individual dose (kg product/ha)	Maximum number of treatments	Latest time of application (days before harvest)
Broad bean, dwarf French bean, runner bean	1	2 per crop	14
Vining pea, edible podded pea	1	2 per crop	14
Broad bean (harvested dry), dwarf French bean (harvested dry), combination pea (harvested dry)	1	2 per crop	28
Carrot	0.8	3 per year	7
Celeriac	0.8	2 per year	14
Strawberry	1	2 per crop	3
Raspberry, blackberry	1	3 per year	14
Outdoor crops of blueberry, bilberry, cranberry, redcurrant, blackcurrant, gooseberry	1	3 per year	10
Apple, crab apple, pear, quince	0.8	3 per year	3
Ornamental plant production and forestry nursery (outdoor)	1	3 per year	-
Ornamental plant production and forestry nursery (protected)	0.8	3 per year	-

**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.**

## SAFETY PRECAUTIONS

### (a) Operator protection (COSHH applies to the UK only)

Spray equipment must only be used where the operator's normal working position is within a closed cab on a tractor or on a self-propelled sprayer when making broadcast air-assisted applications.

Other engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment.

WEAR SUITABLE PROTECTIVE GLOVES when handling the product or handling contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand-held equipment.

However engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WASH HANDS AND EXPOSED SKIN before eating, drinking or smoking and after work.

### (b) Environmental protection

#### For UK only

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.



DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m of the top of the bank of a static or flowing water body unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1 m of the top of a ditch which is dry at the time of application. DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1 m of the top of the bank of a static or flowing water body. Aim spray away from water.

DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted sprayers to fall within 30 m# or 10 m## of the top of the bank of a static or flowing water body unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 5 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

# for applications to apple, crab apple, pear and quince

## for applications to blackberry, raspberry, blueberry, bilberry, cranberry, redcurrant, whitecurrant, blackcurrant, gooseberry, ornamental plant production and forest nursery

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer or broadcast air-assisted sprayer, either a LERAP must be carried out in accordance with CRD's published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

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.

#### For Ireland only

When applying by tractor mounted/trailed sprayer: To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies

When applying by broadcast air assisted sprayer: To protect aquatic organisms respect an unsprayed buffer zone of 30 m\* or 10m\*\* to surface water bodies

When applying knapsack/handheld sprayer: To protect aquatic organisms respect an unsprayed buffer zone of 1m to surface water bodies

\* When applying to apple, crab apple, pear and quince

\*\* When applying to blackberry, raspberry, blueberry, bilberry, cranberry, redcurrant, blackcurrant, gooseberry, ornamentals and forest nursery.

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.

### (c) Storage and disposal

KEEP IN ORIGINAL CONTAINER tightly closed in a safe place.

RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add the washings to the sprayer tank at the time of filling and dispose of container 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 the product.

### PROPERTIES OF SWITCH

SWITCH® is a fungicide containing cyproconazole (100 mg/l) and is best used as a protectant treatment or in the earliest stages of disease development.

SWITCH may be used as part of a programme of sprays. To maintain a high level of protection, and to prevent or limit the development of *Botrytis* strains less sensitive to the product, applications of SWITCH should not be made consecutively but should be used in alternation with fungicides with different modes of action, with satisfactory efficacy against the pathogen.

### DISEASES CONTROLLED

#### Fresh and Dried beans

*Botrytis* (grey mould) [Moderate control]

*Sclerotinia sclerotiorum*

#### Fresh and Dried Peas

*Mycosphaerella pinodes*, *Ascochyta pisi* (both giving a useful level of control)

*Botrytis* (grey mould) [Moderate control]

*Sclerotinia sclerotiorum*

#### Carrots

*Alternaria* Leaf Blight (*Alternaria dauci*) [Moderate control]

*Sclerotinia sclerotiorum* [Moderate control]

## Celeriac

*Sclerotinia sclerotiorum* [Moderate control]

## Strawberries

*Botrytis* (grey mould)

\*Black spot (*Colletotrichum acutatum*)

\* QUALIFIED MINOR USE RECOMMENDATION. The evidence of effectiveness against black spot is limited.

## Protected and Outdoor Raspberry, Blackberry

*Botrytis*

Outdoor crops *Ribes Spp.* (Redcurrant, Blackcurrant, Whitecurrant, Gooseberry) and Other berries (Blueberry, Bilberry, Cranberry)

*Botrytis*\*

\* QUALIFIED MINOR USE RECOMMENDATION. The evidence of effectiveness against *botrytis* on these crops is limited.

## Apples, Crab Apples, Quince and Pears

When Switch is applied in a pre-harvest spray programme a reduction in the following orchard and storage rots may be achieved:

*Botrytis cinerea* (*Botryotinia fuckeliana*)

*Monilinia spp.*

*Nectria spp.*

*Penicillium spp.*

*Colletotrichum spp.*

*Fusarium spp.*

*Gloeosporium spp.*

*Alternaria spp.*

*Venturia spp.*

## Pears

*Stemphylium vesicarium* (brown spot) [Moderate control]

## Ornamental plant production and forestry nursery

*Botrytis*

## **CROP SPECIFIC INFORMATION**

Best results will be achieved from applications of SWITCH made in the earliest stage of disease development or as a protective treatment following a disease risk assessment or the use of appropriate support systems.

Fresh beans (Dwarf French, green, runner, broad beans) and Dried beans (Dwarf french, navy, (phaseolus), kidney, haricot, dried broad beans)

**Rate Of Use**

1 kg product per hectare

**Timing**

SWITCH should be applied at the first signs of disease infection, from early flowering onwards. A second application may be required if disease pressure remains high. Allow a minimum of 10 days between applications for all crops.

**Beans For Processing**

Where a crop of beans is destined for processing, consult your processor before treating with SWITCH.

Vining peas, edible podded peas and dried peas (combining peas including marrowfat)

**Rate Of Use**

1 kg product per hectare

**Timing**

SWITCH should be applied at the first sign of disease infection from early flowering onwards. A second application may be required if disease pressure remains high. Allow a minimum of 10 days between applications for all crops.

**Crop Safety**

SWITCH shows good crop safety on vining peas. Before applying ensure the crop is free from any stress caused by environment or agronomic effects. Check wax level if necessary using the Crystal Violet test.

**Peas For Processing**

Where a crop of peas is destined for processing, consult your processor before treating with SWITCH.

Carrots

**Rate Of Use**

0.8 kg product per hectare

**Timing**

For optimum results apply SWITCH at the first signs of disease, from 4th true leaf unfolded onwards (BBCH 14). A further two applications may be required if disease pressure remains high. Allow a minimum of 12 days between applications.

**Carrots For Processing**

Where a crop is destined for processing, consult your processor before treating with SWITCH.

## Celeriac

### **Rate Of Use**

0.8 kg product per hectare

### **Timing**

For optimum results apply SWITCH at the first signs of disease, from 4th true leaf unfolded onwards (BBCH 14). A second application may be required if disease pressure remains high. Allow a minimum of 14 days between applications for crops.

## Protected and outdoor strawberries

### **Rate Of Use**

1 kg product per hectare

### **Timing**

For optimum results apply SWITCH as a protectant spray at the beginning of blossom (white bud). A second application of SWITCH can be made if disease pressure remains high. Application should be made in sequence with other products as part of a fungicide programme during flowering at a minimum interval of 10 days.

## **Strawberries For Processing**

Where a crop of strawberries is destined for processing, consult your processor before treating with SWITCH.

## Raspberry and blackberry

### **Rate Of Use**

1 kg product per hectare

### **Timing**

SWITCH should be applied as a protectant spray from early flower (white bud). A further two applications may be required if disease pressure remains high. Allow a minimum of 10 days between applications for all crops.

## **Processing**

Where a crop of fruit is destined for processing, consult your processor before treating with SWITCH.

## Outdoor crops of blueberry, bilberry, cranberry, redcurrant, blackcurrant, whitecurrant and gooseberry

### **Rate Of Use**

1 kg product per hectare

### **Timing**

SWITCH should be applied as a protectant spray from late grape stage of currants and first open flower for gooseberry and other berries.

A further two applications may be required if disease pressure remains high. Allow a minimum of 10 days between the first and second application and 28 days between the second and third application.

### **Processing**

Where a crop of fruit is destined for processing, consult your processor before treating with SWITCH.

Apple, crab apple, quince and pear

### **Rate Of Use**

0.8 kg product per hectare

### **Timing**

For optimum results apply SWITCH as a protectant spray from the end of flowering. Two further applications of SWITCH can be made if disease pressure remains high up to 3 days prior to harvest. Application should be made in sequence with other products as part of a fungicide programme. Allow a minimum of 7 days between applications.

For best control of *Stemphylium* in pears three applications should be made shortly after fruit set in late May and early June.

### **Specific warning for Bramley apple**

Limited trials data show that when SWITCH is used on Bramley apple there is the potential for increased fruit russeting to occur. Growers should be aware of this and consult with the processor / marketing desk if necessary before using the product.

Ornamental plant production and forestry nursery (outdoor and protected)

### **Rate Of Use**

1 kg product per hectare (OUTDOOR)

0.8 kg product per hectare (PROTECTED)

### **Timing**

SWITCH should be applied as a protectant spray.

A further two applications may be required if disease pressure remains high. Allow a minimum of 7 days between applications.

### **Crop tolerance**

SWITCH has been successfully used at the recommended doses on a range of species and cultivars without crop damage. However because of the large number of species and cultivars of ornamentals, the cultivar susceptibility should always be checked by treating a small number of plants in the first instance.

Multiple applications of SWITCH to Anemone, Begonia, Kalanchoë have shown some phytotoxicity symptoms therefore it is advised to limit the number of applications to two with an extended application interval of 10 days.

Use only a single application on Saintpaulia.

Application to *Exacum affine* and *Impatiens spp.* is advised against.

## RECOMMENDATIONS

### MIXING AND SPRAYING

Make sure the sprayer is set to give an even application at the correct volume. Fill the spray tank with half the required volume of clean water and start agitation. Add the required amount of SWITCH to the spray tank. Agitate the mixture thoroughly before use and continue agitation during spraying. Thoroughly wash all spray equipment with water immediately after use.

Wash out containers thoroughly, preferably using an integrated pressure rinsing device, or manually rinse three times. Add washings to the sprayer at the time of filling. Complete filling to the required volume and continue to agitate throughout the spraying operation.

Do not leave the spray liquid in the sprayer for long periods (such as during meal breaks or overnight).

### Volume Of Water And Spraying

Apply SWITCH through conventional crop spraying equipment using a medium quality spray (BCPC) at a pressure of at least 2 bar.

Fresh beans, fresh peas, dried peas, carrot and celeriac

Apply in at least 200 litres of water per hectare.

Protected and outdoor strawberries

Protected strawberries - Apply in at least 600 litres of water per hectare.

Outdoor strawberries - Apply in at least 500 litres of water per hectare.

Redcurrant, blackcurrant, whitecurrant, gooseberry, blueberry, bilberry, cranberry, raspberry and blackberry.

Apply in at least 800 litres of water per hectare.

Apple, pear, quince, crab apple and dried beans

Apply in at least 400 litres of water per hectare.

Ornamental plant production and forestry nursery

Apply in a maximum concentration of 80 grams product per 100 litres of water

### **After Spraying**

Thoroughly wash out sprayer according to manufacturer's guidelines and dispose of washings and clean containers according to DEFRA Code of Practice and local water authority guidelines.

TO CREATE A 24, 28 OR 32 PAGE BOOKLET (INCLUDING GLUE PAGE)

### **RESISTANCE MANAGEMENT**

In order to minimise the likelihood of the development of resistance, it is recommended that SWITCH should be used in a programme with products of different chemical groups. Alternating or mixing fungicides with different modes of actions is a recognised disease resistance management strategy.

SWITCH contains cyprodinil, an anilinopyrimidine chemical. Application should be made in accordance with the FRAC anilinopyrimidine (AP) working group botrytis guidelines.

Where only 2 applications are made per season, the number of anilinopyrimidine products should be limited to 1. Where up to 6 botrytis treatments are made per crop and season, a maximum of 2 applications of anilinopyrimidine-containing products are recommended. Where more than 6 fungicide treatments are made per crop and season, a maximum of 2 applications of anilinopyrimidine-containing products are recommended.

This product is to be used only in accordance with the recommendations and instructions given on the labels provided with this pack.

83 X 92 mm

### **Section 6 of the Health and Safety at Work Act** **Additional Product Safety Information**

(This section does not form part of the product label under the Plant Protection Products Regulations 1995.)

The product label provides information on a specific pesticidal use of the product; do not use otherwise, unless you have assessed any potential hazard involved, the safety measures required and that the particular use has 'off-label' approval or is otherwise permitted under the Control of Pesticides Regulations.

The information on this label is based on the best available information including data from test results.

## Safety Data Sheet - V21.1

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

#### 1.1 Product identifier

Trade name: SWITCH

Design Code: A9219B

Product Registration Number: MAPP 15129, PCS 03761

Unique Formula Identifier (UFI): 0VXR-0DCK-C00V-T6T6

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

Use of the Substance/Mixture: Fungicide

Recommended restrictions on use: professional use

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

##### Approval Holder and UK Marketing Company

Syngenta UK Ltd

CPC4, Capital Park, Fulbourn, Cambridge,  
CB21 5XE, United Kingdom

Telephone: +44 (0) 1223 883400

Telefax: +44 (0) 1223 882195

##### Ireland Marketing Company

Syngenta Ireland Limited

Block 6 Cleaboy Business Park, Old Kilmeaden Road,  
Waterford, Ireland

Telephone: (051) 377203

Telefax: (051) 847438

E-mail address of person responsible for the SDS: [customer.services@syngenta.com](mailto:customer.services@syngenta.com)

#### 1.4 Emergency telephone number

Syngenta +44 1484 538444

Poisons Information Centre of Ireland

Members of Public: +353 (1) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)

Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

## 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.

Short-term (acute) aquatic hazard, Category 1 - H400: Very toxic to aquatic life.

Long-term (chronic) aquatic hazard, Category 1 - H410: Very toxic to aquatic life with long lasting effects.

### 2.2 Label elements

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

Hazard pictograms



Signal Word	Warning	
Hazard	H317	May cause an allergic skin reaction.
Statements	H410	Very toxic to aquatic life with long lasting effects.
Precautionary	P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Statements	P280	Wear protective gloves.
	P313+P333	If skin irritation or rash occurs: Get medical advice/attention.
	P362+P364	Take off contaminated clothing and wash it before reuse.
	P391	Collect spillage.

Hazardous components which must be listed on the label:

- cyprodinil (ISO)

### Precautionary statements

P501 Dispose of contents/container to a licensed hazardous waste disposal contractor or collection site except for empty triple rinsed clean containers which can be disposed of as non-hazardous waste.

### Additional Labelling

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

May form combustible dust concentrations in air.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

#### Hazardous components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
cyprodinil (ISO)	121552-61-2  612-242-00-X	Skin Sens.1; H317 Aquatic Acute1; H400 Aquatic Chronic1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 10	>= 30 - < 50

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
fludioxonil (ISO)	131341-86-1  608-069-00-4	Aquatic Acute1; H400 Aquatic Chronic1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 10	>= 25 - < 30
reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda	Not Assigned  01-2119980979-09	Acute Tox.4; H302 Acute Tox.4; H332 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system)	>= 1 - < 3
Substances with a workplace exposure limit :			
silica	61790-53-2 293-303-4		>= 10 - < 20

For explanation of abbreviations see section 16.

#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures: 83 x 92 mm

**General advice :** Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician or going for treatment.

**If inhaled :** Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control centre immediately.

**In case of skin contact :** Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

**In case of eye contact :** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.

**If swallowed :** If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

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

Symptoms : Nonspecific. No symptoms known or expected.

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

Treatment: There is no specific antidote available. Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing media :

Extinguishing media - small fires - Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media - large fires - Alcohol-resistant foam or Water spray

Unsuitable extinguishing media: Do not use a solid water stream as it may scatter and spread fire.

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

Specific hazards during firefighting: Fire will spread by burning with a visible flame. 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.

### 5.3 Advice for fire-fighters

Special protective equipment for firefighters: Wear full protective clothing and self-contained breathing apparatus.

Further information : Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

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## 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. Avoid dust formation.

### 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 : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13). Do not create a powder cloud by using a brush or compressed air. Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents. Retain and dispose of contaminated wash water.

### 6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8. Refer to disposal considerations listed in section 13.

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## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Advice on safe handling : This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible

with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents. This material can become readily charged in most operations. Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8

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

Requirements for storage areas and containers: Keep containers tightly closed in a dry, cool and wellventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

### 7.3 Specific end uses

Specific use(s): For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
cyprodinil (ISO)	121552-61-2	TWA	5 mg/m <sup>3</sup>	Syngenta
fludioxonil	131341-86-1	TWA	5 mg/m <sup>3</sup>	Syngenta
silica	61790-53-2	TWA (Respirable dust)	1.2 mg/m <sup>3</sup>	Supplier

#### Derived No Effect Level (DNEL):

Substance name	End Use	Exposure routes	Potential health effects	Value
sodium sulphate	Workers	Inhalation	Systemic effects	20 mg/m <sup>3</sup>
	Workers	Inhalation	Local effects	20 mg/m <sup>3</sup>
	Consumers	Inhalation	Systemic effects	12 mg/m <sup>3</sup>
	Consumers	Inhalation	Local effects	12 mg/m <sup>3</sup>

#### Predicted No Effect Concentration (PNEC):

Substance name	Environmental Compartment	Value
sodium sulphate	Fresh water	11.09 mg/l
	Freshwater - intermittent	17.66 mg/l
	Marine water	1.109 mg/l
	Sewage treatment plant	800 mg/l
	Fresh water sediment	40.2 mg/kg dry weight (d.w.)
	Marine sediment	4.02 mg/kg dry weight (d.w.)
	Soil	1.54 mg/kg dry weight (d.w.)

## 8.2 Exposure controls

**Engineering measures:** Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

### **Personal protective equipment**

Eye protection : No special protective equipment required.

Hand protection

Material : Nitrile rubber

Break through time : > 480 min

Glove thickness : 0.5 mm

Remarks : Wear protective gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. 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 break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced immediately if there is any indication for degradation or chemical breakthrough.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work place. Remove and wash contaminated clothing before re-use. Wear as appropriate. Use impervious protective suit.

Respiratory protection : No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance : granules	Vapour pressure : No data available
Colour : grey to brown	Relative vapour density : No data available
Odour : weak	Density : 1 g/cm <sup>3</sup>
Odour Threshold : No data available	Bulk density : 0.537 g/cm <sup>3</sup>
pH : 9.6. Concentration: 1 % w/v	Water solubility : No data available
Melting point/range : No data available	Solubility in other solvents : No data available
Boiling point/boiling range : No data available	Flash point : No data available

Evaporation rate : No data available  
Flammability (solid, gas) : May form combustible dust concentrations in air.  
Burning number : 5 (20 °C); 6 (100 °C)  
Upper explosion limit / Upper flammability limit: No data available  
Lower explosion limit / Lower flammability limit: No data available

Partition coefficient: noctanol/water: No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Viscosity, kinematic : No data available  
Explosive properties : Not explosive  
Oxidizing properties : The substance or mixture is not classified as oxidizing.

## 9.2 Other information

Minimum ignition temperature : 600 °C  
Self-heating substances : The substance or mixture is not classified as self heating.  
Minimum ignition energy : 3 - 10 mJ  
Particle size : No data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity:

None reasonably foreseeable.

### 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 used as directed.

### 10.5 Incompatible materials

Materials to avoid: None known

### 10.6 Hazardous decomposition products

Hazardous decomposition: No hazardous decomposition products are known.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Information on likely routes of exposure:** Ingestion, Inhalation, Skin contact, Eye contact

#### Acute toxicity

##### Product:

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

Acute inhalation toxicity: LC50 (Rat, male and female): > 2.51 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity: LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal toxicity

**Components:**

**cyprodinil (ISO):**

Acute oral toxicity: LD50 (Rat, female): > 2,500 mg/kg

Acute inhalation toxicity: LC50 (Rat, male and female): > 1.2 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity: LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal toxicity

**fludioxonil (ISO):**

Acute oral toxicity: LD50 (Rat, male and female): > 3,000 mg/kg

Acute inhalation toxicity: LC50 (Rat, male and female): > 2.6 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity: LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal toxicity

**reaction product of naphthalene, butano-, sulfonate and neutralized by caustic soda:**

Acute oral toxicity: LD50 (Rat): 1,800 mg/kg

Acute inhalation toxicity: LC50 (Rat): 4.08 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity: LD50 (Rabbit): 3,000 mg/kg

**Skin corrosion/irritation**

**Product:**

Species: Rabbit

Result: No skin irritation

**Components:**

**cyprodinil (ISO):**

Species: Rabbit

Result: No skin irritation

**fludioxonil (ISO):**

Species: Rabbit

Result: No skin irritation

**Serious eye damage/eye irritation**

**Product:**

Species: Rabbit

Result: No eye irritation

**Components:**

**cyprodinil (ISO):**

Species: Rabbit

Result: No eye irritation

**fludioxonil (ISO):**

Species: Rabbit

Result: No eye irritation

**reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:**

Result: Eye irritation

**Respiratory or skin sensitisation**

**Product:**

Species: Guinea pig

Result: May cause sensitisation by skin contact

**Components:**

**cyprodinil (ISO):**

Species: Guinea pig

Result: The product is a skin sensitizer, sub-category TB

**fludioxonil (ISO):**

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

**Germ cell mutagenicity**

**Components:**

**cyprodinil (ISO):**

Germ cell mutagenicity- Assessment: Animal testing did not show any mutagenic effects.

**fludioxonil (ISO):**

Germ cell mutagenicity- Assessment: Animal testing did not show any mutagenic effects.

**reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:**

Germ cell mutagenicity- Assessment: In vitro tests did not show mutagenic effects

**Carcinogenicity**

**Components:**

**cyprodinil (ISO):**

Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

MAXIMUM PRINT AREA

83 x 92 mm

**fludioxonil (ISO):**

Carcinogenicity Assessment: No evidence of carcinogenicity in animal studies.

**Reproductive toxicity**

**Components:**

**cyprodinil (ISO):**

Reproductive toxicity - Assessment: No toxicity to reproduction

**fludioxonil (ISO):**

Reproductive toxicity - Assessment: No toxicity to reproduction

**STOT - single exposure**

**Components:**

**reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:**

Assessment : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**STOT - repeated exposure**

**Components:**

**cyprodinil (ISO):**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

**Product:**

Toxicity to fish: LC50 (*Oncorhynchus mykiss* (rainbow trout)): 3.1 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* (Water flea)): 0.14 mg/l  
Exposure time: 48 h

Toxicity to algae: EC50 (*Desmodesmus subspicatus* (green algae)): 1.6 mg/l  
Exposure time: 72 h  
NOEC (*Desmodesmus subspicatus* (green algae)): 0.1 mg/l  
End point: Growth rate  
Exposure time: 72 h

Toxicity to fish (Chronic toxicity): NOEC: 0.32 mg/l  
Exposure time: 21 d  
Species: *Oncorhynchus mykiss* (rainbow trout)  
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC: 0.01 mg/l

**Components:****cyprodinil (ISO):**

Toxicity to fish:

Exposure time: 22 d  
Species: *Daphnia magna* (Water flea)

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 2.41 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 (*Daphnia magna* (Water flea)): 0.033 mg/l

Exposure time: 48 h

LC50 (*Americamysis*): 0.0081 mg/l

Exposure time: 96 h

Toxicity to algae:

ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 5.2 mg/l

Exposure time: 72 h

NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 0.4 mg/l

End point: Growth rate

Exposure time: 72 h

EC50 (*Skeletonema costatum* (marine diatom)): 1.78 mg/l

Exposure time: 72 h

NOEC (*Skeletonema costatum* (marine diatom)): 0.541 mg/l

Exposure time: 72 h

M-Factor

(Acute aquatic toxicity):

10

Toxicity to microorganisms:

EC50 (activated sludge): > 100 mg/l

Exposure time: 3 h

Toxicity to fish (Chronic toxicity):

NOEC: 0.0405 mg/l

Exposure time: 36 d

Species: *Cyprinodon variegatus* (sheepshead minnow)

Toxicity to daphnia and other aquatic invertebrates

(Chronic toxicity):

NOEC: 0.0082 mg/l

Exposure time: 21 d

Species: *Daphnia magna* (Water flea)

NOEC: 0.0019 mg/l

Exposure time: 28 d

Species: *Americamysis*

M-Factor

(Chronic aquatic toxicity):

10

**fludioxonil (ISO):**

Toxicity to fish:

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 0.23 mg/l

THESE PAGES CAN BE USED TO CREATE A 24, 28 OR 32 PAGE BOOKLET (INCLUDING GLUE PAGE)

Exposure time: 96 h

LC50 (*Pimephales promelas* (fathead minnow)): 0.7 mg/l

Exposure time: 96 h

Toxicity to daphnia and

other aquatic invertebrates:

EC50 (*Daphnia magna* (Water flea)): 0.4 mg/l

Exposure time: 48 h

EC50 (*Americamysis*): 0.27 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic plants:

ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 0.259 mg/l

Exposure time: 96 h

EC10 (*Raphidocelis subcapitata* (freshwater green alga)): 0.077 mg/l

End point: Growth rate

Exposure time: 96 h

ErC50 (*Skeletonema costatum* (marine diatom)): 0.43 mg/l

Exposure time: 96 h

NOEC (*Skeletonema costatum* (marine diatom)): 0.14 mg/l

End point: Growth rate

Exposure time: 96 h

M-Factor

(Acute aquatic toxicity):

1, M-Factor=1 used for transport classification

Toxicity to microorganisms:

EC50 (activated sludge): 100 mg/l

Exposure time: 3 h

Toxicity to fish

(Chronic toxicity):

NOEC: 0.04 mg/l

Exposure time: 28 d

Species: *Oncorhynchus mykiss* (rainbow trout)

NOEC: 0.018 mg/l

Exposure time: 116 d

Species: *Pimephales promelas* (fathead minnow)

Toxicity to daphnia and

other aquatic invertebrates

(Chronic toxicity):

NOEC: 0.035 mg/l

Exposure time: 21 d

Species: *Daphnia magna* (Water flea)

NOEC: 0.018 mg/l

Exposure time: 28 d

Species: *Americamysis*

M-Factor

(Chronic aquatic toxicity):

10, M-Factor=1 used for transport classification

**reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:**

Toxicity to fish : LC50 (*Danio rerio* (zebra fish)): > 100 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Remarks: Information given is based on data obtained from similar substances.

Toxicity to algae/aquatic plants: EC50 (*Raphidocelis subcapitata* (freshwater green alga)): > 200 mg/l  
Exposure time: 72 h  
Remarks: Information given is based on data obtained from similar substances.

**12.2 Persistence and degradability**

**Components:**

**cyprodinil (ISO):**

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 141 d

Remarks: Product is not persistent.

**fludioxonil (ISO):**

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 450 - 700 d

Remarks: Persistent in water.

**reaction product of naphthalene, butanol, sulfonated and neutralized by caustic soda:**

Biodegradability : Result: Readily biodegradable.

Remarks: Information given is based on data obtained from similar substances.

**12.3 Bioaccumulative potential**

**Components:**

**cyprodinil (ISO):**

Bioaccumulation: Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water: log Pow: 4.0 (25 °C)

**fludioxonil (ISO):**

Bioaccumulation: Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water: log Pow: 4.12 (25 °C)

**12.4 Mobility in soil**

**Components:**

**cyprodinil (ISO):**

Distribution among environmental compartments: Remarks: Cyprodinil has low to slight mobility in soil.

Stability in soil: Dissipation time: 49 d

Percentage dissipation: 50 % (DT50)

Remarks: Product is not persistent.

**fludioxonil (ISO):**

Distribution among environmental compartments: Remarks: immobile

Stability in soil:

Dissipation time: 14 d

Percentage dissipation: 50 % (DT50)

Remarks: Product is not persistent.

**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.

**Components:**

**cyprodinil (ISO):**

Assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**fludioxonil (ISO):**

Assessment: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**12.6 Other adverse effects**

**Product:**

Endocrine disrupting potential: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Product:** Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

**Contaminated packaging:** Empty remaining contents. Triple rinse containers. Empty containers should be taken for local recycling or waste disposal. Do not re-use empty containers.

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## 14. TRANSPORT INFORMATION

### 14.1 UN Number:

ADR	RID	IMDG	IATA
UN 3077	UN 3077	UN 3077	UN 3077

### 14.2 UN proper shipping name

**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CYPRODINIL AND FLUDIOXONIL)

**RID** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CYPRODINIL AND FLUDIOXONIL)

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CYPRODINIL AND FLUDIOXONIL)

**IATA** : Environmentally hazardous substance, solid, n.o.s. (CYPRODINIL AND FLUDIOXONIL)

### 14.3 Transport hazard class(es)

ADR	RID	IMDG	IATA
9	9	9	9

### 14.4 Packing group

ADR	RID	MDG
Packing group : III Classification Code : M7 Hazard Identification Number : 90 Labels : 9 Tunnel restriction code : (E)	Packing group : III Classification Code : M7 Hazard Identification Number : 90 Labels : 9	Packing group : III Labels : 9 EmS Code : F-A, S-F
IATA (Cargo)	IATA (Passenger)	
Packing instruction (cargo aircraft): 956 Packing instruction (LQ): Y956 Packing group: III Labels: Miscellaneous	Packing instruction (passenger aircraft): 956 Packing instruction (LQ): Y956 Packing group: III Labels: Miscellaneous	

### 14.5 Environmental hazards

ADR	RID	IMDG	IATA (Passenger)	IATA (Cargo)
Environmentally hazardous : yes	Environmentally hazardous : yes	Marine pollutant : yes	Environmentally hazardous : yes	Environmentally hazardous : yes

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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

Not applicable for product as supplied.

EXCESS PAGES CAN BE ADDED OR REMOVED AS NECESSARY

TO CREATE A 24, 28 OR 32 PAGE BOOKLET (INCLUDING GLUE PAGE)

## 15. REGULATORY INFORMATION

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

Relevant EU provisions transposed through retained EU law REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII): Conditions of restriction for the following entries should be considered: formaldehyde (Number on list 72, 28) methylcyclohexane

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 (EU) 2019/1021 on persistent organic pollutants (POPs): Not applicable

UK REACH List of substances subject to authorisation (Annex XIV): Not applicable

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation: 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.

E1	ENVIRONMENTAL HAZARDS	Quantity 1 TWA	Quantity 2 200 t
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### Other regulations:

### 15.2 Chemical Safety Assessment 83 X 92 mm

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

## 16. OTHER INFORMATION

### Full text of H-Statements

H302: Harmful if swallowed.  
H317: May cause an allergic skin reaction.  
H318: Causes serious eye damage.  
H332: Harmful if inhaled.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Acute Tox.: Acute toxicity  
Aquatic Acute: Acute aquatic toxicity  
Aquatic Chronic: Chronic aquatic toxicity  
Eye Dam.: Serious eye damage  
Skin Sens.: Skin sensitisation  
STOT SE: Specific target organ toxicity - single exposure  
GB EH40: UK, EH40 WEL - Workplace Exposure Limits  
GB EH40 / TWA: Long-term exposure limit (8-hour TWA reference period)

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; AICS -

Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw

- Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; 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; NZIOC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (QSAR) (Quantitative) Structure - Activity Relationship; 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; SVHC - Substance of Very High Concern; TCS - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative.

#### Further information

##### Classification of the mixture:

Skin Sens. 1	H317
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

##### Classification procedure:

Based on product data or assessment
Based on product data or assessment
Based on product data or assessment

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.