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

1.1 Product identifier

Trade name : MIRAVIS PLUS

Design code : A21857B

Product Registration Number :

MAPP 20847

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

Use of the Sub-

stance/Mixture

: Fungicide

1.3 Details of the supplier of the safety data sheet

Company : Syngenta UK Limited

CPC4, Capital Park

Fulbourn, Cambridge CB21 5XE

United Kingdom

Telephone : +44 (0) 1223 883400

Telefax : +44 (0) 1223 882195

E-mail address of person

responsible for the SDS

: product.technical\_enquiries@syngenta.com

1.4 Emergency telephone number

Emergency telephone num-

: +44 1484 538444

ber

## **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Serious eye damage, Category 1 H318: Causes serious eye damage.
Carcinogenicity, Category 2 H351: Suspected of causing cancer.
Reproductive toxicity, Category 2 H361f: Suspected of damaging fertility.

Long-term (chronic) aquatic hazard, Cat- H411: Toxic to aquatic life with long lasting effects.

egory 2

# 2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

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Hazard pictograms :

\*\*\*



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.

H351 Suspected of causing cancer. H361f Suspected of damaging fertility.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have

been read and understood.

P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously

with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container to a licensed haz-

ardous-waste disposal contractor or collection site

except for empty clean

containers which can be disposed of as non-hazardous waste.

Hazardous components which must be listed on the label:

calcium dodecylbenzene sulphonate

2-methylpropan-1-ol

**Additional Labelling** 

EUH401 To avoid risks to human health and the environment, comply with the instruc-

tions for use.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

#### Components

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| Chemical name                     | CAS-No.<br>EC-No.<br>Index-No.<br>Registration number | Classification                                                                                                                                          | Concentration<br>(% w/w) |
|-----------------------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| oxydipropyl dibenzoate            | 27138-31-4<br>248-258-5                               | Aquatic Chronic 3;<br>H412                                                                                                                              | >= 30 - < 50             |
| pydiflumetofen                    | 1228284-64-7<br>616-234-00-7                          | Aquatic Acute 1; H400 Aquatic Chronic 1; H410 ——— M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1                           | >= 2.5 - < 10            |
| calcium dodecylbenzene sulphonate | 26264-06-2<br>247-557-8                               | Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>Aquatic Chronic 3;<br>H412                                                                                   | >= 3 - < 10              |
| 2-methylpropan-1-ol               | 78-83-1<br>201-148-0<br>603-108-00-1                  | Flam. Liq. 3; H226<br>Skin Irrit. 2; H315<br>Eye Dam. 1; H318<br>STOT SE 3; H335<br>(Respiratory system)<br>STOT SE 3; H336<br>(Central nervous system) | >= 3 - < 10              |

For explanation of abbreviations see section 16.

#### **SECTION 4: First aid measures**

## 4.1 Description of first aid measures

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 respira-

tion.

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.

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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.

Risks : Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : There is no specific antidote available.

Treat symptomatically.

**SECTION 5: Firefighting measures** 

5.1 Extinguishing media

Suitable extinguishing media : Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or car-

bon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam

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 fire-

fighting

As the product contains combustible organic components, fire

will produce dense black smoke containing hazardous prod-

ucts of combustion (see section 10).

Exposure to decomposition products may be a hazard to

health.

Flash back possible over considerable distance.

5.3 Advice for firefighters

Special protective equipment:

for firefighters

Wear full protective clothing and self-contained breathing ap-

paratus.

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.

**SECTION 6: Accidental release measures** 

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Refer to protective measures listed in sections 7 and 8.

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Keep people away from and upwind of spill/leak.

Beware of vapours accumulating to form explosive concentra-

tions. Vapours can accumulate in low areas.

Remove all sources of ignition. Pay attention to flashback.

6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.

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 material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible ab-

sorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local

/ national regulations (see section 13). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents.

Retain and dispose of contaminated wash water.

6.4 Reference to other sections

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

**SECTION 7: Handling and storage** 

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

Use only in an area containing flame proof equipment. Take precautionary measures against static discharges.

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 combustible material. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feed-

ingstuffs. No smoking.

7.3 Specific end use(s)

Specific use(s) : For proper and safe use of this product, please refer to the

approval conditions laid down on the product label.

**SECTION 8: Exposure controls/personal protection** 

8.1 Control parameters

**Occupational Exposure Limits** 

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| Components              | CAS-No.          | Value type (Form of exposure) | Control parameters  | Basis    |
|-------------------------|------------------|-------------------------------|---------------------|----------|
| pydiflumetofen          | 1228284-<br>64-7 | TWA                           | 5 mg/m3             | Syngenta |
| 2-methylpropan-1-<br>ol | 78-83-1          | TWA                           | 50 ppm<br>154 mg/m3 | GB EH40  |
|                         |                  | STEL                          | 75 ppm<br>231 mg/m3 | GB EH40  |

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

| Substance name                        | End Use   | Exposure routes | Potential health effects   |                      |
|---------------------------------------|-----------|-----------------|----------------------------|----------------------|
| oxydipropyl dibenzo-<br>ate           | Workers   | Dermal          | Acute systemic effects     | 170 mg/kg            |
|                                       | Workers   | Inhalation      | Acute systemic effects     | 35.08 mg/m3          |
|                                       | Workers   | Dermal          | Long-term systemic effects | 10 mg/kg             |
|                                       | Workers   | Inhalation      | Long-term systemic effects | 8.8 mg/m3            |
|                                       | Consumers | Dermal          | Acute systemic effects     | 80 mg/kg             |
|                                       | Consumers | Inhalation      | Acute systemic effects     | 8.7 mg/m3            |
|                                       | Consumers | Oral            | Acute systemic effects     | 80 mg/kg             |
|                                       | Consumers | Dermal          | Long-term systemic effects | 0.22 mg/kg           |
|                                       | Consumers | Inhalation      | Long-term systemic effects | 8.69 mg/m3           |
|                                       | Consumers | Oral            | Long-term systemic effects | 5 mg/kg              |
| 2-hydroxy-N,N-<br>dimethylpropanamide | Workers   | Inhalation      | Long-term systemic effects | 78.4 mg/m3           |
|                                       | Workers   | Dermal          | Long-term systemic effects | 11.11 mg/kg          |
|                                       | Consumers | Inhalation      | Long-term systemic effects | 20 mg/m3             |
|                                       | Consumers | Dermal          | Long-term systemic effects | 6.67 mg/kg           |
|                                       | Consumers | Oral            | Long-term systemic effects | 6.67 mg/kg           |
| castor oil, ethoxylated               | Workers   | Inhalation      | Long-term systemic effects | 16.4 mg/m3           |
|                                       | Workers   | Dermal          | Long-term systemic effects | 4.67 mg/kg<br>bw/day |
|                                       | Consumers | Inhalation      | Long-term systemic effects | 2.9 mg/m3            |
|                                       | Consumers | Dermal          | Long-term systemic effects | 1.67 mg/kg<br>bw/day |
|                                       | Consumers | Oral            | Long-term systemic effects | 1.67 mg/kg<br>bw/day |
| calcium dodecylben-                   | Workers   | Inhalation      | Long-term systemic         | 52 mg/m3             |

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| zene sulphonate     |           |            | effects                                             |             |
|---------------------|-----------|------------|-----------------------------------------------------|-------------|
| ·                   | Workers   | Inhalation | Acute systemic ef-<br>fects                         | 52 mg/m3    |
|                     | Workers   | Inhalation | Long-term local ef-<br>fects                        | 52 mg/m3    |
|                     | Workers   | Inhalation | Acute local effects                                 | 52 mg/m3    |
|                     | Workers   | Dermal     | Long-term systemic effects                          | 57.2 mg/kg  |
|                     | Workers   | Dermal     | Acute systemic ef-<br>fects                         | 80 mg/kg    |
|                     | Workers   | Dermal     | Long-term local ef-<br>fects                        | 1.57 mg/cm2 |
|                     | Workers   | Dermal     | Acute local effects                                 | 1.57 mg/cm2 |
| 2-methylpropan-1-ol | Workers   | Inhalation | Long-term systemic effects, Long-term local effects | 310 mg/m3   |
|                     | Consumers | Inhalation | Long-term systemic effects, Long-term local effects | 55 mg/m3    |
|                     | Consumers | Oral       | Long-term systemic effects, Long-term local effects | 25 mg/kg    |

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

| Substance name                         | Environmental Compartment | Value                              |
|----------------------------------------|---------------------------|------------------------------------|
| oxydipropyl dibenzoate                 | Fresh water               | 0.0037 mg/l                        |
|                                        | Marine water              | 0.00037 mg/l                       |
|                                        | Intermittent use/release  | 0.037 mg/l                         |
|                                        | Fresh water sediment      | 1.49 mg/kg                         |
|                                        | Marine sediment           | 0.149 mg/kg                        |
|                                        | Soil                      | 1 mg/kg                            |
|                                        | Sewage treatment plant    | 10 mg/l                            |
| 2-hydroxy-N,N-<br>dimethylpropanamide  | Fresh water               | 0.24 mg/l                          |
|                                        | Marine water              | 0.024 mg/l                         |
|                                        | Intermittent use/release  | 1 mg/l                             |
|                                        | Sewage treatment plant    | 54 mg/l                            |
|                                        | Fresh water sediment      | 0.192 mg/kg                        |
|                                        | Marine sediment           | 0.0192 mg/kg                       |
|                                        | Soil                      | 1.25 mg/kg                         |
| castor oil, ethoxylated                | Fresh water sediment      | 0.0129 mg/kg dry<br>weight (d.w.)  |
|                                        | Marine sediment           | 0.00129 mg/kg<br>dry weight (d.w.) |
|                                        | Soil                      | 0.00258 mg/kg<br>dry weight (d.w.) |
| calcium dodecylbenzene sulpho-<br>nate | Fresh water               | 0.28 mg/l                          |
|                                        | Marine water              | 0.458 mg/l                         |
|                                        | Freshwater - intermittent | 0.654 mg/l                         |
|                                        | Sewage treatment plant    | 50 mg/l                            |
|                                        | Fresh water sediment      | 27.5 mg/kg                         |
|                                        | Marine sediment           | 2.75 mg/kg                         |

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| 2-methylpropan-1-ol | Fresh water            | 0.4 mg/l     |
|---------------------|------------------------|--------------|
|                     | Sewage treatment plant | 10 mg/l      |
|                     | Soil                   | 0.0699 mg/kg |
|                     | Marine sediment        | 0.152 mg/kg  |
|                     | Fresh water sediment   | 1.52 mg/kg   |
|                     | Marine water           | 0.04 mg/l    |

#### 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/face protection : Always wear eye protection when the potential for inadvertent

eye contact with the product cannot be excluded.

Tightly fitting safety goggles

Face-shield

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 if there is any indication of degradation or chemical breakthrough.

Skin and body protection : Choose body protection in relation to its type, to the concen-

tration and amount of dangerous substances, and to the spe-

cific work-place.

Remove and wash contaminated clothing before re-use.

Wear as appropriate: Impervious clothing

Respiratory protection : No personal respiratory protective equipment normally re-

quired.

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 appro-

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priate professional advice.

## **SECTION 9: Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Appearance : solution Colour : yellow

Odour : No data available Odour Threshold : No data available

pH : 3-7

Concentration: 1 %w/v

5.2

Concentration: 1.0 %w/v

Melting point/freezing point : No data available

Initial boiling point and boiling

range

Flash point

: 80 °C

Method: Pensky-Martens closed cup

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper

flammability limit

No data available

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapour pressure : No data available

Relative vapour density : No data available

Density : 1.10 g/cm3 (20 °C)

Solubility(ies)

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : 400 °C

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive

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Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

Particle size : No data available

## **SECTION 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

products

: No hazardous decomposition products are known.

## **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

Information on likely routes of:

exposure

Inhalation Skin contact Eye contact

Ingestion

**Acute toxicity** 

#### **Components:**

oxydipropyl dibenzoate:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

pydiflumetofen:

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

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.11 mg/l

Exposure time: 4 h

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Test atmosphere: dust/mist

Assessment: The component/mixture is minimally toxic after

short term inhalation.

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

2-methylpropan-1-ol:

Acute oral toxicity : LD50 (Rat): 2,830 - 3,350 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 24.6 mg/l

Exposure time: 4 h

Test atmosphere: vapour

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 - 2,460 mg/kg

Skin corrosion/irritation

**Components:** 

pydiflumetofen:

Species : Rabbit

Result : No skin irritation

calcium dodecylbenzene sulphonate:

Result : Irritating to skin.

2-methylpropan-1-ol:

Result : Irritating to skin.

Serious eye damage/eye irritation

**Components:** 

pydiflumetofen:

Species : Rabbit

Result : No eye irritation

calcium dodecylbenzene sulphonate:

Result : Risk of serious damage to eyes.

2-methylpropan-1-ol:

Result : Risk of serious damage to eyes.

Respiratory or skin sensitisation

**Components:** 

pydiflumetofen:

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Test Type : mouse lymphoma cells

Species : Mouse

Result : Does not cause skin sensitisation.

2-methylpropan-1-ol:

Species : Guinea pig

Result : Does not cause skin sensitisation.

Remarks : Information given is based on data obtained from similar sub-

stances.

Germ cell mutagenicity

Components:

oxydipropyl dibenzoate:

Germ cell mutagenicity- As-

sessment

: Animal testing did not show any mutagenic effects.

pydiflumetofen:

Germ cell mutagenicity- As-

sessment

Animal testing did not show any mutagenic effects.

Carcinogenicity

**Components:** 

pydiflumetofen:

Carcinogenicity - Assess-

ment

Weight of evidence does not support classification as a car-

cinogen

Reproductive toxicity

Components:

pydiflumetofen:

Reproductive toxicity - As-

sessment

No toxicity to reproduction, No effects on or via lactation

STOT - single exposure

**Components:** 

pydiflumetofen:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

2-methylpropan-1-ol:

Assessment : The substance or mixture is classified as specific target organ

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

ic effects.

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STOT - repeated exposure

**Components:** 

pydiflumetofen:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

**Aspiration toxicity** 

**Components:** 

2-methylpropan-1-ol:

May be harmful if swallowed and enters airways.

**SECTION 12: Ecological information** 

12.1 Toxicity

**Product:** 

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 3.54 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 2.25 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)):

7.12 mg/l

Exposure time: 72 h

EC10 (Raphidocelis subcapitata (freshwater green alga)):

4.07 mg/l

End point: Growth rate Exposure time: 72 h

NOEC (Raphidocelis subcapitata (freshwater green alga)):

2.59 mg/l

End point: Growth rate Exposure time: 72 h

**Components:** 

oxydipropyl dibenzoate:

Toxicity to fish : LC50 (Fish): 3.7 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 19.3 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): 3.6

mg/l

Exposure time: 96 h

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EC10 (Raphidocelis subcapitata (freshwater green alga)):

0.87 mg/l

End point: Growth rate Exposure time: 96 h

Toxicity to daphnia and other : aquatic invertebrates (Chron-

NOEC: 2.2 mg/l Exposure time: 21 d

ic toxicity) Species: Daphnia magna (Water flea)

**Ecotoxicology Assessment** 

Chronic aquatic toxicity Harmful to aquatic life with long lasting effects.

pydiflumetofen:

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): 0.18 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.42 mg/l

Exposure time: 48 h

LC50 (Hyalella azteca (Amphipod)): 0.12 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): >

5.9 mg/l

Exposure time: 72 h

EC10 (Raphidocelis subcapitata (freshwater green alga)): 2.3

End point: Growth rate Exposure time: 72 h

ErC50 (Navicula pelliculosa (Freshwater diatom)): 1.6 mg/l

Exposure time: 72 h

EC10 (Navicula pelliculosa (Freshwater diatom)): 0.97 mg/l

End point: Growth rate Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

Toxicity to fish (Chronic tox-

icity)

EC10: 0.15 mg/l

Exposure time: 32 d

Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0.042 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

M-Factor (Chronic aquatic

toxicity)

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calcium dodecylbenzene sulphonate:

**Ecotoxicology Assessment** 

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

2-methylpropan-1-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1,430 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia pulex (Water flea)): 1,100 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (Raphidocelis subcapitata (freshwater green alga)):

1,799 mg/l

Exposure time: 72 h

Toxicity to daphnia and other : aguatic invertebrates (Chron-

aquatic invertebrates (Chron-

NOEC: 20 mg/l Exposure time: 21 d

ic toxicity) Species: Daphnia magna (Water flea)

12.2 Persistence and degradability

**Components:** 

oxydipropyl dibenzoate:

Biodegradability : Result: Readily biodegradable.

pydiflumetofen:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 236 d

Remarks: Persistent in water.

2-methylpropan-1-ol:

Biodegradability : Result: Readily biodegradable.

12.3 Bioaccumulative potential

**Components:** 

pydiflumetofen:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

: log Pow: 3.8 (25 °C)

12.4 Mobility in soil

Components:

pydiflumetofen:

Distribution among environ- : Remarks: Low mobility in soil.

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mental compartments

Stability in soil : Dissipation time: 674 d

Percentage dissipation: 50 % (DT50)

Remarks: Persistent in soil.

#### 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:** 

oxydipropyl dibenzoate:

Assessment : Substance is not persistent, bioaccumulative, and toxic (PBT).

pydiflumetofen:

Assessment : Substance is not persistent, bioaccumulative, and toxic

(PBT).. Substance is not very persistent and very bioaccumu-

lative (vPvB).

2-methylpropan-1-ol:

Assessment : Substance is not persistent, bioaccumulative, and toxic

(PBT).. Substance is not very persistent and very bioaccumu-

lative (vPvB).

12.6 Other adverse effects

**Product:** 

Endocrine disrupting poten-

tial

This substance/mixture does not contain components considered to have endocrine disrupting properties for environment

according to LIK DEACH Article 57(f)

according to UK REACH Article 57(f).

## **SECTION 13: Disposal considerations**

13.1 Waste treatment methods

Product : Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or incinera-

tion.

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 to an approved waste han-

dling site for recycling or disposal.

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Do not re-use empty containers.

# **SECTION 14: Transport information**

#### 14.1 UN number

 ADR
 : UN 3082

 RID
 : UN 3082

 IMDG
 : UN 3082

 IATA
 : UN 3082

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(PYDIFLUMETOFEN)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(PYDIFLUMETOFEN)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(PYDIFLUMETOFEN)

IATA : Environmentally hazardous substance, liquid, n.o.s.

(PYDIFLUMETOFEN)

## 14.3 Transport hazard class(es)

Class Subsidiary risks

 ADR
 : 9

 RID
 : 9

 IMDG
 : 9

 IATA
 : 9

#### 14.4 Packing group

**ADR** 

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

Remarks : This product can be subject to exemptions when packaged in

single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a

net mass of 5 kg or less for solids.

RID

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

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Labels : 9

Remarks : This product can be subject to exemptions when packaged in

single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a

net mass of 5 kg or less for solids.

**IMDG** 

Packing group : III Labels : 9

EmS Code : F-A, S-F

Remarks : This product can be subject to exemptions when packaged in

single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a

net mass of 5 kg or less for solids.

IATA (Cargo)

Packing instruction (cargo : 964

aircraft)

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

Remarks : This product can be subject to exemptions when packaged in

single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a

net mass of 5 kg or less for solids.

IATA (Passenger)

Packing instruction (passen-

ger aircraft)

: 964

Packing instruction (LQ) : Y964
Packing group : III

Labels : Miscellaneous

Remarks : This product can be subject to exemptions when packaged in

single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids, or having a

net mass of 5 kg or less for solids.

14.5 Environmental hazards

**ADR** 

Environmentally hazardous : yes

RID

Environmentally hazardous : yes

**IMDG** 

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)

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.

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#### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

## **SECTION 15: Regulatory information**

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Conditions of restriction for the fol-

lowing entries should be considered:

Number on list 3

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

UK REACH Candidate list of substances of very high

concern (SVHC) for Authorisation

The Persistent Organic Pollutants Regulations (retained

Regulation (EU) 2019/1021 as amended for Great Brit-

ain)

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

UK REACH List of substances subject to authorisation

(Annex XIV)

GB Export and import of hazardous chemicals - Prior

Informed Consent (PIC) Regulation

Control of Major Accident Hazards Regulations E2 ENVIRONMENTAL HAZARDS

2015 (COMAH)

## 15.2 Chemical safety assessment

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

#### **SECTION 16: Other information**

#### **Full text of H-Statements**

H226 : Flammable liquid and vapour.

H315 : Causes skin irritation.

H318 : Causes serious eye damage.
H335 : May cause respiratory irritation.
H336 : May cause drowsiness or dizziness.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.

## Full text of other abbreviations

Aquatic Acute : Short-term (acute) aquatic hazard
Aquatic Chronic : Long-term (chronic) aquatic hazard

Carc. : Carcinogenicity
Eye Dam. : Serious eye damage
Flam. Liq. : Flammable liquids
Repr. : Reproductive toxicity

Skin Irrit. : Skin irritation

STOT SE : Specific target organ toxicity - single exposure

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GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

Syngenta : Syngenta Occupational Exposure Limit

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

Syngenta / TWA : Time weighted average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; 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; (Q)SAR - (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; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

#### **Further information**

#### Classification of the mixture: Classification procedure:

Eye Dam. 1 H318 Calculation method
Carc. 2 H351 Calculation method
Repr. 2 H361f Calculation method
Aquatic Chronic 2 H411 Calculation method

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

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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.

GB/EN