


**GROUP 7 12 FUNGICIDES**

 Product registration number: MAPP 17838  
 UFI: G9Q2-C0GA-M00T-NG2Y

A suspension concentrate for seed treatment containing 25 g/ litre sedaxane and 25 g/litre fludioxonil.

For the control of seed borne diseases for wheat (winter), wheat (spring), triticale (winter), rye (winter), oats (spring), barley (winter) and barley (spring).

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

 Syngenta UK Limited  
 CPC4, Capital Park, Fulbourn, Cambridge, CB21 5XE  
 Tel: Cambridge (01223) 883400

**In case of toxic or transport emergency ring  
 +44 (0) 1484 538444 (24hr)**
**PROTECT FROM FROST. MIX THOROUGHLY BEFORE USE**
*Containers should be handled only by mechanical means (20 litres and over)*


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

# 200 litres

**VIBRANCE® Duo**

A suspension concentrate for seed treatment containing 25 g/litre sedaxane and 25 g/l fludioxonil.



**Warning**  
**Harmful if inhaled.**  
**May cause an allergic skin reaction.**  
**Very toxic to aquatic life with long lasting effects.**

Keep out of reach of children.

Avoid breathing mist or vapours.

Wear protective gloves/protective clothing.

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

Collect spillage.

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

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

Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

**MAPP 17838 UFI: G9Q2-C0GA-M00T-NG2Y**
**IMPORTANT INFORMATION**

FOR USE ONLY AS A PROFESSIONAL SEED TREATMENT

Crops	Maximum individual dose (litres product/tonne)	Maximum Number of Treatments	Latest time of application
Wheat (winter, seed), wheat (spring, seed), triticale (winter, seed), rye (winter, seed), barley (winter, seed), barley (spring, seed)	2	One per batch	Before drilling
Oats (spring, seed)	1.0	One per batch	Before drilling

**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.**
**PRECAUTIONS**
**(a) Operator protection**

 Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:  
 WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling the concentrate, contaminated surfaces or treated seed.  
 WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when bagging treated seed.  
 However engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.  
 KEEP OUT OF REACH OF CHILDREN.  
 IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).

**(b) Environmental protection**

 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**

 WHEN USING, DO NOT EAT, DRINK OR SMOKE.  
 KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.  
 EMPTY CONTAINER COMPLETELY and dispose of safely.  
 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 washings to sprayer at time of filling and dispose of safely.  
 DO NOT RE-USE CONTAINER for any purpose.

**ADDITIONAL PRECAUTIONS SPECIFIC TO 1000 LITRE INTERMEDIATE BULK CONTAINERS (IBC).**
**FOLLOW THE OPERATING INSTRUCTIONS SUPPLIED WITH EACH IBC AT ALL TIMES. (REF. "SAFE OPERATION OF VIBRANCE Duo DISPENSING SYSTEM USING IBC") OPEN THE CONTAINER ONLY AS DIRECTED. EMPTY IBC'S SHOULD BE TREATED AS FULL CONTAINERS WITH RESPECT TO STORAGE, TRANSPORT AND HANDLING AS THEY WILL STILL BE CONTAMINATED INTERNALLY. DO NOT RINSE OUT THE CONTAINER. DO NOT RE-USE THE CONTAINER FOR ANY OTHER PURPOSE. ENSURE THAT VALVES ARE CLOSED, ALL CAPS ARE SECURED AND THAT THE PRODUCT LABEL IS LEGIBLE.**

This leaflet is part of the approved Product label.

**DIRECTIONS FOR USE**

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

**Resistance Management**

 VIBRANCE® Duo contains sedaxane, a SDHI fungicide.  
 For advice on resistance management of Succinate dehydrogenase inhibitor (SDHI) fungicides refer to the latest Fungicide Resistance Action Group (FRAG) guidelines.

**DISEASES CONTROLLED**
**Wheat (winter and spring)**

 VIBRANCE Duo is a fungicidal seed treatment for the control of seed borne snow mould (*Monographella nivalis*), *Septoria nodorum*, seed borne *Fusarium culmorum*, Common bunt (*Tilletia caries*), loose smut (*Ustilago tritici*) and moderate control of seed borne ear blight (*Fusarium graminearum*) in wheat.

**Barley (winter and spring)**

 VIBRANCE Duo is a fungicidal seed treatment for the control of seed borne snow mould (*Monographella nivalis*), covered smut (*Ustilago hordei*) and moderate control of leaf stripe (*Pyrenophora graminea*) and loose smut (*Ustilago nuda*) in barley. Barley seed treated with Vibrance Duo must not be used for seed multiplication (certified seed) unless co-applied with another product which controls leaf stripe (*Pyrenophora graminea*) and loose smut (*Ustilago nuda*). Covered smut of barley is rare in the UK.

**Triticale (winter)**

 VIBRANCE Duo will control seed borne snow mould (*Monographella nivalis*) in winter triticale.

**Oats (spring)**

 VIBRANCE Duo will control loose smut (*Ustilago avenae*) in spring oats.

**Rye (winter)**

 VIBRANCE Duo will control seed borne snow mould (*Monographella nivalis*) and strip smut (*Urocystis occulta*) in winter rye.

**CROP SPECIFIC INFORMATION**

For use on all varieties of winter and spring wheat, winter and spring barley, winter triticale, spring oats and winter rye.

**Timing**

Before drilling.

**Rates of Use**

Wheat (winter), wheat (spring), barley (winter), barley (spring), triticale (winter) and rye (winter): Apply 2 litres product per tonne of seed.

Oat (spring): Apply 1.0 litres of product per tonne of seed.

**APPLICATION**

For all bulk containers: Prior to use the drum should be agitated by rolling the drum on its base to ensure uniform distribution of the product in the tank prior to application. This should be done using suitable mechanical means.

VIBRANCE Duo should be applied directly to the seed using conventional seed treatment equipment. Do not apply VIBRANCE Duo to cracked, split or sprouted seed.

Calibrate the application equipment before use. For further advice please contact Syngenta UK Ltd.

**DRILLING**

Seed treated with VIBRANCE Duo may affect the flow of the seed through drills. It is therefore important to check the calibration of the drill with VIBRANCE Duo treated seed before drilling commences.

**STORAGE AFTER TREATMENT**

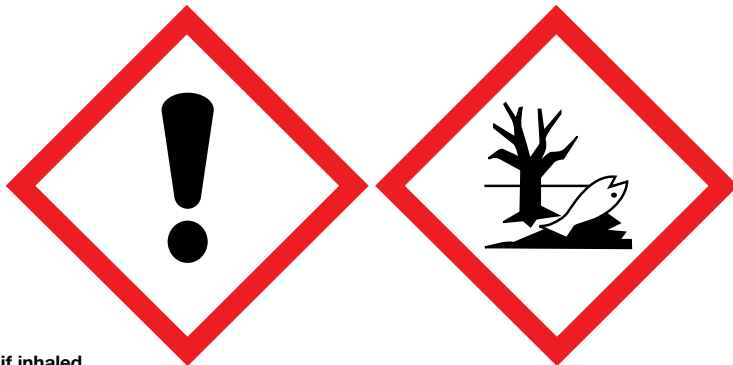
Sowing treated seed that has been stored for prolonged periods (beyond the season of treatment) may adversely affect effectiveness and/or crop safety.

**COMPANY ADVISORY INFORMATION**

As the occurrence of resistance cannot be forecast, neither Syngenta UK Limited nor its distributors can accept responsibility for any loss or damage to crops caused by the failure of VIBRANCE Duo to control resistant strains.

**VIBRANCE® Duo**

A suspension concentrate for seed treatment containing 25 g/litre sedaxane and 25 g/l fludioxonil.

**Warning**

**Harmful if inhaled.**

**May cause an allergic skin reaction.**

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

Keep out of reach of children.

Avoid breathing mist or vapours.

Wear protective gloves/protective clothing.

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

Collect spillage.

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

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

Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

**MAPP:** 17838

**UFI:** G9Q2-C0GA-M00T-NG2Y

**IMPORTANT INFORMATION**

FOR USE ONLY AS A PROFESSIONAL SEED TREATMENT

Crops	Maximum individual dose (litres product tonne)	Maximum Number of Treatments	Latest time of application
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## **DIRECTIONS FOR USE**

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VIBRANCE® Duo contain sedaxane, a SDHI fungicide.

For advice on resistance management of Succinate dehydrogenase inhibitor (SDHI) fungicides refer to the latest Fungicide Resistance Action Group (FRAG) guidelines.

## **DISEASES CONTROLLED**

### **Wheat (winter and spring)**

VIBRANCE Duo is a fungicidal seed treatment for the control of seed borne snow mould (*Monographella nivalis*), *Septoria nodorum*, seed borne *Fusarium culmorum*, Common bunt (*Tilletia caries*), loose smut (*Ustilago tritici*) and moderate control of seed borne ear blight (*Fusarium graminearum*) in wheat.

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### **Triticale (winter)**

VIBRANCE Duo will control seed borne snow mould (*Monographella nivalis*) in winter triticale.

### **Oats (spring)**

VIBRANCE Duo will control loose smut (*Ustilago avenae*) in spring oats.

### **Rye (winter)**

VIBRANCE Duo will control seed borne snow mould (*Monographella nivalis*) and stripe smut (*Urocystis occulta*) in winter rye.

## **CROP SPECIFIC INFORMATION**

For use on all varieties of winter and spring wheat, winter and spring barley, winter triticale, spring oats and winter rye.

### **Timing**

Before drilling.

### **Rates of Use**

Wheat (winter), wheat (spring), barley (winter), barley (spring), triticale (winter) and rye (winter): Apply 2 litres product per tonne of seed. Oat (spring): Apply 1.0 litres of product per tonne of seed.

## **APPLICATION**

For all bulk containers: Prior to use the drum should be agitated by rolling the drum on its base to ensure uniform distribution of the product in the tank prior to application. This should be done using suitable mechanical means.

VIBRANCE Duo should be applied directly to the seed using conventional seed treatment equipment.

Do not apply VIBRANCE Duo to cracked, split or sprouted seed.

Calibrate the application equipment before use. For further advice please contact Syngenta UK Ltd.

## **DRILLING**

Seed treated with VIBRANCE Duo may affect the flow of the seed through drills. It is therefore important to check the calibration of the drill with VIBRANCE Duo treated seed before drilling commences.

## **STORAGE AFTER TREATMENT**

Sowing treated seed that has been stored for prolonged periods (beyond the season of treatment) may adversely affect effectiveness and/or crop safety.

## COMPANY ADVISORY INFORMATION

As the occurrence of resistance cannot be forecast, neither Syngenta UK Limited nor its distributors can accept responsibility for any loss or damage to crops caused by the failure of VIBRANCE Duo to control resistant strains.

## SEED BAG LABEL TEXT

This seed has been treated with VIBRANCE Duo (contains fludioxonil and sedaxane)

VIBRANCE Duo is a seed treatment for the control of a wide range of diseases in winter wheat, spring wheat, winter barley, spring barley, winter triticale, spring oats and winter rye.

MAPP 17838

## SAFETY PRECAUTIONS

WEAR SUITABLE PROTECTIVE CLOTHING AND SUITABLE PROTECTIVE GLOVES when handling treated seed.  
TO PROTECT BIRDS/ WILD MAMMALS, treated seed should not be left on the soil surface. Bury or remove spillages.  
DO NOT HANDLE seed unnecessarily.  
DO NOT USE TREATED SEED as food or feed.  
KEEP TREATED SEED SECURE from people, domestic stock/pets and wildlife at all times during storage and use.  
DO NOT RE-USE SACKS OR CONTAINERS THAT HAVE BEEN USED FOR TREATED SEED for food or feed.  
WASH HANDS AND EXPOSED SKIN before meals and after work.  
DO NOT APPLY TREATED SEED FROM THE AIR.

## NOTES

- Safe Handling of treated Seed  
Avoid skin contact with treated seed and dust during all drilling operations. Launder coveralls daily.
- Drilling  
Check drill calibration before drilling for each batch of seed to ensure an accurate drilling rate. Avoid adverse seedbed conditions and deep or shallow drilling which may adversely affect crop establishment and reduce the level of pest control.
- Storage  
Seed should be stored in a cool, dry, well ventilated building and be drilled as soon as possible after treatment. Drill within the season of treatment.
- Seed Spillages  
In case of seed spillage, clean up as much as possible into the related seed sack and re-use the clean seed. Bury the remainder completely.

Syngenta UK Limited  
CPC4, Capital Park, Fulbourn  
Cambridge CB21 5XE  
Tel: Cambridge (01223) 883400

In case of toxic or transport emergency ring +44 (0) 1484 538444 (24hr)

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### 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 'extension of use' approval or is otherwise permitted under the Plant Protection Products Regulations.

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

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## SAFETY DATA SHEET V10.1

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

#### 1.1 Product Identifier

Product Name: VIBRANCE Duo

Design Code: A20078E

Product Registration Number : MAPP 17838

Unique Formula Identifier (UFI): G9Q2-C0GA-M00T-NG2Y

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

Use of the substance/mixture: Fungicide, Seed treatment

Recommended restrictions on use: professional use

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

Company: Syngenta UK Ltd

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

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 phone No.: +44 1484 538444

### 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**

Acute toxicity, Category 4 - H332: Harmful if inhaled.

Skin sensitisation, Sub-category 1B - H317: May cause an allergic skin reaction.

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) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567**

#### Hazard pictograms



**Signal Word** Warning

<b>Hazard Statements</b>	H317	May cause an allergic skin reaction.
	H332	Harmful if inhaled.
	H410	Very toxic to aquatic life with long lasting effects.

<b>Precautionary Statements</b>	P102	Keep out of reach of children.
	P261	Avoid breathing mist or vapours.
	P280	Wear protective gloves/ protective clothing.
	P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
	P391	Collect spillage.
	P501	Dispose of contents/container to a licensed hazardous 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:

- 1,2-benzisothiazol-3(2H)-one

#### Additional Labelling

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

#### 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.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

##### Components

Chemical Name	CAS No. EC No. Index-No. Registration Number	Classification	Concentration (% w/w)
alcohols, C16-18 and C18-unsatd., ethoxylated	68920-66-1 500-236-9	Skin Irrit. 2; H315 Aquatic Chronic 3; H412	>= 2.5 - < 10
sedaxane	874967-67-6 616-235-00-2	Carc. 2; H351 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1	>= 1 - < 2.5
fluidoxonil (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	>= 1 - < 2.5
Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega -[tris(1-phenyl ethyl) phenoxy]-ammonium salt	119432-41-6	Aquatic Chronic3; H412	>= 1 - < 2.5
1,2-benzisothiazol-3(2H)-one	2634-33-5 220-120-9 613-088-00-6	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1 specific concentration limit Skin Sens. 1; H317 >= 0,05 %	>= 0.05 - < 0.1
Substances with a workplace exposure limit :			
propane-1,2-diol	57-55-6 200-338-0		>= 1 - < 10

For explanation of abbreviations see section 16.

#### 4. FIRST-AID MEASURES

##### 4.1 Description of first aid measures

**General Advice:** Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control centre 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: 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.

## 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.

### 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 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). 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.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Advice on safe handling : No special protective measures against fire required. 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: No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs.

### 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
propane-1,2-diol	57-55-6	TWA (particles)	10 mg/m <sup>3</sup>	GB EH40
		TWA (Total vapour and particles)	150 ppm 474 mg/m <sup>3</sup>	GB EH40
sedaxane	874967-67-6	TWA	5 mg/m <sup>3</sup>	SYNGENTA
fludioxonil (ISO)	131341-86-1	TWA	5 mg/m <sup>3</sup>	SYNGENTA

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

Substance name	End Use	Exposure routes	Potential health effects	Value
propane-1,2-diol	Workers	Inhalation	Long-term systemic effects	168 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	10 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term systemic effects	30 mg/m <sup>3</sup>
alcohols, C16-18 and C18-unsatd., ethoxylated	Workers	Inhalation	Long-term local effects	10 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	294 mg/m <sup>3</sup>
	Workers	Dermal	Long-term systemic effects	2080 mg/kg
	Consumers	Inhalation	Long-term systemic effects	87 mg/m <sup>3</sup>

Substance name	End Use	Exposure routes	Potential health effects	Value
	Consumers	Dermal	Long-term systemic effects	1250 mg/kg
	Consumers	Oral	Long-term systemic effects	25 mg/kg
calcium 4-[(5-chloro-4-methyl-2-sulphonatophenyl)azo]-3-hydroxy-2-naphthoate	Workers	Inhalation	Systemic effects	4.4 mg/m3
	Workers	Dermal	Systemic effects	0.57 mg/kg bw/day
	Consumers	Inhalation	Systemic effects	1.1 mg/m3
	Consumers	Dermal	Systemic effects	0.2 mg/kg bw/day
	Consumers	Oral	Systemic effects	0.6 mg/kg bw/day
1,2-benzisothiazol-3(2H)-one	Workers	Inhalation	Long-term systemic effects	6.81 mg/m3
	Workers	Dermal	Long-term systemic effects	0.966 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1.2 mg/m3
	Consumers	Dermal	Long-term systemic effects	0.345 mg/kg

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

Substance name	Environmental Compartment	Value
propane-1,2-diol	Fresh water	260 mg/l
	Marine water	26 mg/l
	Intermittent use/release	183 mg/l
	Sewage treatment plant	20000 mg/l
	Marine sediment	57.2 mg/kg
	Fresh water sediment	572 mg/kg
alcohols, C16-18 and C18- unsatd., ethoxylated	Soil	50 mg/kg
	Fresh water	0.007 mg/l
	Freshwater - intermittent	0.1 mg/l
	Marine water	0.001 mg/l
	Sewage treatment plant	10 g/l
	Fresh water sediment	22.79 mg/kg
1,2-benzisothiazol-3(2H)-one	Marine sediment	2.28 mg/kg
	Soil	1 mg/kg
	Fresh water	0.00403 mg/l
	Marine water	0.000403 mg/l
	Sewage treatment plant	1.03 mg/l
	Fresh water sediment	0.0499 mg/kg
	Marine sediment	0.00499 mg/kg
	Freshwater - intermittent	0.0011 mg/l
Marine water - intermittent	0.000110 mg/l	
	Soil	3 mg/kg

## 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 if there is any indication of 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: Impervious clothing
- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
Suitable respiratory equipment: Respirator with a half face mask  
The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
- 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 : suspension
- Colour : light red to dark red
- Odour : No data available
- Odour Threshold : No data available
- pH : 7.2, Concentration: 100 % w/v
- Melting point/range : No data available
- Boiling point/boiling range : No data available
- Flash point : Method: Pensky-Martens closed cup, does not flash
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Upper explosion limit /  
Upper flammability limit: No data available
- Lower explosion limit /  
Lower flammability limit: No data available
- Relative vapour density : No data available
- Density : 1.06 g/cm<sup>3</sup> (25 °C)
- Water solubility : No data available
- Solubility in other solvents: No data available
- Partition coefficient:  
noctanol/water: No data available
- Auto-ignition temperature : 475 °C
- Decomposition temperature : No data available
- Viscosity, dynamic : 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

- 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 products: 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, female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): 2.54 - 5.34 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

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

Assessment: The substance or mixture has no acute dermal toxicity

#### Components:

##### sedaxane:

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

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.244 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): > 5,000 mg/kg

##### fluidioxonil (ISO):

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

##### 1,2-benzisothiazol-3(2H)-one:

Acute oral toxicity : LD50 (Rat, male): 670 mg/kg

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

Assessment: The substance or mixture has no acute dermal toxicity

## Skin corrosion/irritation

#### Product:

Species: Rabbit

Result: No skin irritation

#### Components:

##### alcohols, C16-18 and C18-unsatd., ethoxylated:

Result: Irritating to skin.

##### sedaxane:

Species: Rabbit

Result: No skin irritation

##### fluidioxonil (ISO):

Species: Rabbit

Result: No skin irritation

##### 1,2-benzisothiazol-3(2H)-one:

Result: Irritating to skin.

### **Serious eye damage/eye irritation**

#### **Product:**

Species: Rabbit

Result: No eye irritation

#### **Components:**

##### **sedaxane:**

Species: Rabbit

Result: No eye irritation

##### **fludioxonil (ISO):**

Species: Rabbit

Result: No eye irritation

##### **1,2-benzisothiazol-3(2H)-one:**

Species: Rabbit

Result: Risk of serious damage to eyes.

### **Respiratory or skin sensitisation**

#### **Product:**

Test Type: Local Lymph Node Assay

Species: Mouse

Result: The product is a skin sensitiser, sub-category 1B.

#### **Components:**

##### **sedaxane:**

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Result : Not a skin sensitizer.

##### **fludioxonil (ISO):**

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

##### **1,2-benzisothiazol-3(2H)-one:**

Result: Probability or evidence of skin sensitisation in humans

### **Germ cell mutagenicity**

#### **Components:**

##### **sedaxane:**

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.

##### **1,2-benzisothiazol-3(2H)-one:**

Germ cell mutagenicity- Assessment: Weight of evidence does not support classification as a germ cell mutagen.

### **Carcinogenicity**

#### **Components:**

##### **sedaxane:**

Carcinogenicity - Assessment: Weight of evidence does not support classification as a carcinogen, At extremely high doses, numerically higher incidences of uterine, thyroid and liver tumors (male and/or female rats) and liver tumors (male mice) were within the range of normal background variation and thus considered unrelated to treatment. Some Regulatory Authorities have taken a more conservative position that these high-dose findings are treatment-related in rats and mice. The dose levels where these findings occur are not relevant to human exposure levels.

##### **fludioxonil (ISO):**

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

### **Reproductive toxicity**

#### **Components:**

##### **sedaxane:**

Reproductive toxicity - Assessment: No toxicity to reproduction

**fludioxonil (ISO):**

Reproductive toxicity - Assessment: No toxicity to reproduction

**STOT - repeated exposure****Components:****sedaxane:**

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

**fludioxonil (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)): 17.8 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 (*Daphnia magna* (Water flea)): 36.7 mg/l  
Exposure time: 48 h

Toxicity to algae :

ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 6.23 mg/l  
Exposure time: 72 h  
NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 1.53 mg/l  
End point: Growth rate  
Exposure time: 72 h**Components:****alcohols, C16-18 and C18-unsatd., ethoxylated:**

Toxicity to fish :

LC50 (Fish): estimated 1.26 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Aquatic invertebrates (general)): 2.6 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants:

EC50 (algae): 2.3 mg/l  
Exposure time: 72 h  
EC10 (algae): 0.33 mg/l  
End point: Biomass  
Exposure time: 72 h**sedaxane:**

Toxicity to fish :

LC50 (*Cyprinus carpio* (Carp)): 0.62 mg/l  
Exposure time: 96 h  
LC50 (*Pimephales promelas* (fathead minnow)): 0.98 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50 (*Daphnia magna* (Water flea)): 6.10 mg/l  
Exposure time: 48 h

Toxicity to algae :

ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 3 mg/l  
Exposure time: 96 h  
NOEC (*Raphidocelis subcapitata* (freshwater green alga)): 1 mg/l  
End point: Growth rate  
Exposure time: 96 h  
ErC50 (*Lemna gibba* (gibbous duckweed)): 6.5 mg/l  
Exposure time: 7 d  
NOEC (*Lemna gibba* (gibbous duckweed)): 0.59 mg/l  
End point: Growth rate  
Exposure time: 7 d

M-Factor (Acute aquatic toxicity):

1

Toxicity to fish (Chronic toxicity): NOEC: 0.165 mg/l  
Exposure time: 33 d  
Species: *Pimephales promelas* (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): NOEC: 0.82 mg/l  
Exposure time: 21 d  
Species: *Daphnia magna* (Water flea)

**fludioxonil (ISO):**  
Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 0.23 mg/l  
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

Toxicity to algae : ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 0.259 mg/l  
Exposure time: 96 h  
EC10 (*Raphidocelis subcapitata* (freshwater green alga)): 0.077 mg/l  
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): > 1,000 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)

M-Factor (Chronic aquatic toxicity): 10  
M-Factor=1 used for transport classification

**poly(oxy-1,2-ethanediy), alpha-sulfo-omega-[tris(1-phenylethyl)phenoxy]-, ammonium salt:**  
Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 33 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* (Water flea)): 24 mg/l  
Exposure time: 48 h

**1,2-benzisothiazol-3(2H)-one:**  
Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): 2.18 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (*Daphnia magna* (Water flea)): 2.94 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants: ErC50 (*Raphidocelis subcapitata* (freshwater green alga)): 0.15 mg/l  
Exposure time: 72 h  
EC10 (*Raphidocelis subcapitata* (freshwater green alga)): 0.04 mg/l

End point: Growth rate  
Exposure time: 72 h  
M-Factor (Acute aquatic toxicity): 1  
Toxicity to fish (Chronic toxicity): NOEC: 0.3 mg/l  
Exposure time: 28 d  
Species: *Oncorhynchus mykiss* (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):  
NOEC: 1.7 mg/l  
Exposure time: 21 d  
Species: Daphnia (water flea)

## 12.2 Persistence and degradability

### Components:

#### alcohols, C16-18 and C18-unsatd., ethoxylated:

Biodegradability : Result: rapidly biodegradable  
Remarks: Based on data from similar materials

#### sedaxane:

Biodegradability : Result: Not readily biodegradable.  
Stability in water : Degradation half life: > 1 y  
Remarks: Persistent in water.

#### fluidioxonil (ISO):

Biodegradability : Result: Not readily biodegradable.  
Stability in water : Degradation half life: 450 - 700 d  
Remarks: Persistent in water.

#### 1,2-benzisothiazol-3(2H)-one:

Biodegradability : Result: rapidly degradable

## 12.3 Bioaccumulative potential

### Components:

#### sedaxane:

Bioaccumulation : Remarks: Does not bioaccumulate.  
Partition coefficient: noctanol/water: log Pow: 3.3 (25 °C)

#### fluidioxonil (ISO):

Bioaccumulation : Remarks: Does not bioaccumulate.  
Partition coefficient: n-octanol/water : log Pow: 4.12 (25 °C)

#### 1,2-benzisothiazol-3(2H)-one:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

## 12.4 Mobility in soil

### Components:

#### sedaxane:

Distribution among environmental compartments: Remarks: Low to medium mobility in soil.  
Stability in soil : Percentage dissipation: 50 % (DT50: 83 d)  
Remarks: Product is not persistent.

#### fluidioxonil (ISO):

Distribution among environmental compartments: Remarks: immobile  
Stability in soil : Percentage dissipation: 50 % (DT50: 14 d)  
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:

#### sedaxane:

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).

#### fluidioxonil (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).

### 1,2-benzisothiazol-3(2H)-one:

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.

### 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.

### 14. TRANSPORT INFORMATION

#### 14.1 UN number

ADR	RID	IMDG	IATA
UN 3082	UN 3082	UN 3082	UN 3082

#### 14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUDIOXONIL, SEDAXANE)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUDIOXONIL, SEDAXANE)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FLUDIOXONIL, SEDAXANE)

IATA : Environmentally hazardous substance, liquid, n.o.s. (FLUDIOXONIL, SEDAXANE)

#### 14.3 Transport hazard class(es)

ADR	RID	IMDG	IATA
9	9	9	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

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 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.

IATA (Passenger)

Packing instruction (passenger 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)

Marine pollutant : yes

IATA (Cargo)

Marine pollutant : 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 and the IBC Code**

Not applicable for product as supplied.

### **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

UK REACH List of restrictions (Annex 17): Conditions of restriction for the following entries should be considered: Number on list 3

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation: Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain): Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: 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

Control of Major Accident Hazards Regulations 2015 (COMAH) E2 ENVIRONMENTAL HAZARDS

#### **15.2 Chemical safety assessment**

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.

H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.

H318 : Causes serious eye damage.

H400 : Very toxic to aquatic life.

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

H411 : Toxic to aquatic life with long lasting effects.

H412 : Harmful to aquatic life with long lasting effects.

#### **Full text of other abbreviations**

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard

Aquatic Chronic : Long-term (chronic) aquatic hazard

Carc. : Carcinogenicity

Eye Dam. : Serious eye damage

Skin Irrit. : Skin irritation



Skin Sens. : Skin sensitisation  
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)  
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; AIIIC - 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; TECl - 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

#### Other information :

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

Acute Tox. 4	H332	Based on product data or assessment
Skin Sens. 1B	H317	Based on product data or assessment
Aquatic Chronic 1	H410	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 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.