

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

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

#### 1.1 Product identifier

FD 333 Quick-acting disinfection

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

##### Relevant identified uses

FD 333 is an aldehyde-free, ready-to-use solution for the rapid disinfection of alcohol-resistant surfaces of medical devices.

##### Product Categories [PC]

PC0 - PC 0 - Other  
Disinfectants

##### Uses advised against

None, if handled according to order.

##### Remark

The product is intended for professional use.

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

##### Supplier (manufacturer/importer/only representative/downstream user/distributor)

orochemie GmbH + Co. KG

**Street :** Max-Planck-Straße 27

**Postal code/city :** 70806 Kornwestheim

**Telephone :** +49 7154 1308-0

**Telefax :** +49 7154 1308-40

**Information contact :** DÜRR DENTAL SE, Höpfigheimer Str. 17, 74321 Bietigheim-Bissingen, Germany  
Tel: +49 7142 705-0, Fax: +49 7142 705-500, info@duerrdental.com

in Australia:

DÜRR DENTAL SE, PO Box 2067, Woonona East New South Wales 2517, Australia,  
Louis Manera +61 (0)412 95 95 25

Importer/Distributor:

Ivoclar Vivadent Ltd, PO Box 303011, North Harbour, Auckland, 0751.  
Phone +64 9 914 9999 Fax+64 9 914 9990

#### 1.4 Emergency telephone number

NZ: National Poison Centre (New Zealand) 0800 764 766 Poisons Hotline (24 hours/7days)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to GHS

Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2 ; Causes serious eye irritation.

Flam. Liq. 2 ; H225 - Flammable liquids : Category 2 ; Highly flammable liquid and vapour.

##### Classification procedure

The classification was carried out according to the calculation method of GHS as well as in-house investigations.

#### 2.2 Label elements

##### Labelling according to GHS

##### Hazard pictograms



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Flame (GHS02) · Exclamation mark (GHS07)

### Signal word

Danger

### Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P280 Wear protective gloves and eye/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to hazardous or special waste collection point.

### 2.3 Other hazards

None

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description

FD 333 contains alcohols, quaternary ammonium compounds, fragrances and auxiliary agents in aqueous solution.

#### Hazardous ingredients

ETHANOL ; REACH registration No. : 01-2119457610-43 ; EC No. : 200-578-6; CAS No. : 64-17-5

Weight fraction :  $\geq 60 - < 65$  %

Classification: Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319

PROPAN-2-OL ; REACH registration No. : 01-2119457558-25 ; EC No. : 200-661-7; CAS No. : 67-63-0

Weight fraction :  $\geq 1 - < 5$  %

Classification : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319 STOT SE 3 ; H336

DIDECYLDIMETHYLAMMONIUM CHLORIDE ; REACH registration No. : 01-2119945987-15 ; EC No. : 230-525-2; CAS No. : 7173-51-5

Weight fraction :  $< 0,1$  %

Classification : Acute Tox. 3 ; H301 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

#### Additional information

Full text of H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

When in doubt or if symptoms are observed, get medical advice.

#### Following inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact

Wash with plenty of water. When in doubt or if symptoms are observed, get medical advice.

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

#### After ingestion

If swallowed, immediately drink: Water Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. Call a physician immediately.

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**Trade name :** FD 333 Quick-acting disinfection  
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### 4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

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

None

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>) Extinguishing powder Water spray Water mist

#### Unsuitable extinguishing media

Full water jet

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

None known.

#### Hazardous combustion products

Vapours can form explosive mixtures with air.

### 5.3 Advice for firefighters

Cool endangered containers with water in case of fire.

#### Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Remove all sources of ignition. When using do not smoke. See protective measures under point 7 and 8.

#### For non-emergency personnel

Use personal protection equipment. See protective measures under point 7 and 8.

#### For emergency responders

##### Personal protection equipment

See protective measures under point 7 and 8.

### 6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### 6.3 Methods and material for containment and cleaning up

#### For cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

#### Other information

Treat the recovered material as prescribed in the section on waste disposal.

### 6.4 Reference to other sections

None

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Keep/Store only in original container. Please note safety instructions and directions for use on the drum. Handle and open container with care. Keep away from sources of ignition - No smoking. Provide adequate ventilation. Do not breathe vapour/aerosol.

#### Protective measures

# Safety Data Sheet

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**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

### Measures to prevent fire

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

## 7.2 Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed. Keep in a cool, well-ventilated place. Do not store in temperatures below 5 °C.

### Hints on joint storage

Do not store together with oxidizing, self-igniting substances and highly flammable solid substances. Store the foodstuffs separately.

## 7.3 Specific end use(s)

None

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

ETHANOL ; CAS No. : 64-17-5

Limit value type (country of origin) : TLV/TWA ( NZ )

Limit value : 1000 ppm / 1880 mg/m<sup>3</sup>

PROPAN-2-OL ; CAS No. : 67-63-0

Limit value type (country of origin) : TLV/STEL ( NZ )

Limit value : 500 ppm / 1230 mg/m<sup>3</sup>

Limit value type (country of origin) : TLV/TWA ( NZ )

Limit value : 400 ppm / 983 mg/m<sup>3</sup>

#### DNEL/DMEL and PNEC values

There are no data available on the preparation itself.

##### DNEL/DMEL

Limit value type : DNEL Consumer (local) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Short-term (acute)

Limit value : 950 mg/m<sup>3</sup>

Limit value type : DNEL Consumer (systemic) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Oral

Exposure frequency : Long-term (repeated)

Limit value : 87 mg/kg

Safety factor : 24 h

Limit value type : DNEL Consumer (systemic) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Dermal

Exposure frequency : Long-term (repeated)

Limit value : 206 mg/kg

Safety factor : 24 h

Limit value type : DNEL Consumer (systemic) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Long-term (repeated)

Limit value : 114 mg/m<sup>3</sup>

Limit value type : DNEL worker (local) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Short-term (acute)

Limit value : 1900 mg/m<sup>3</sup>

Limit value type : DNEL worker (systemic) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Dermal

Exposure frequency : Long-term (repeated)

Limit value : 343 mg/kg

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

---

Safety factor : 24 h  
Limit value type : DNEL worker (systemic) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 950 mg/m<sup>3</sup>  
Limit value type : DNEL Consumer (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Dermal  
Exposure frequency : Long-term (repeated)  
Limit value : 319 mg/kg  
Safety factor : 24 h  
Limit value type : DNEL Consumer (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 89 mg/m<sup>3</sup>  
Limit value type : DNEL Consumer (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Oral  
Exposure frequency : Long-term (repeated)  
Limit value : 26 mg/kg  
Safety factor : 24 h  
Limit value type : DNEL worker (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Dermal  
Exposure frequency : Long-term (repeated)  
Limit value : 888 mg/kg  
Safety factor : 24 h  
Limit value type : DNEL worker (systemic) ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 500 mg/m<sup>3</sup>  
Limit value type : DNEL worker (systemic) ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Exposure route : Oral  
Exposure frequency : Long-term  
Limit value : 18,2 mg/m<sup>3</sup>  
Limit value type : DNEL worker (systemic) ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Exposure route : Dermal  
Exposure frequency : Long-term  
Limit value : 8,6 mg/kg  
Safety factor : 24 h

**PNEC**  
Limit value type : PNEC (Aquatic, freshwater) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 0,96 mg/l  
Limit value type : PNEC (Aquatic, marine water) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 0,79 mg/l  
Limit value type : PNEC (Industrial) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Soil  
Limit value : 0,63 mg/kg  
Limit value type : PNEC (Sediment, freshwater) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 3,6 mg/kg  
Limit value type : PNEC (Sediment, marine water) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 2,9 mg/kg  
Limit value type : PNEC (Secondary poisoning) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 729 mg/kg  
Limit value type : PNEC (Sewage treatment plant) ( ETHANOL ; CAS No. : 64-17-5 )  
Limit value : 580 mg/l  
Limit value type : PNEC (Aquatic, freshwater) ( PROPAN-2-OL ; CAS No. : 67-63-0 )

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

---

Limit value :	140,9 mg/l
Limit value type :	PNEC (Aquatic, marine water) ( PROPAN-2-OL ; CAS No. : 67-63-0 )
Limit value :	140,9 mg/l
Limit value type :	PNEC (Industrial) ( PROPAN-2-OL ; CAS No. : 67-63-0 )
Exposure route :	Soil
Limit value :	28 mg/kg
Limit value type :	PNEC (Sediment, freshwater) ( PROPAN-2-OL ; CAS No. : 67-63-0 )
Limit value :	552 mg/kg
Limit value type :	PNEC (Sediment, marine water) ( PROPAN-2-OL ; CAS No. : 67-63-0 )
Limit value :	552 mg/kg
Limit value type :	PNEC (Secondary poisoning) ( PROPAN-2-OL ; CAS No. : 67-63-0 )
Limit value :	160 mg/kg
Limit value type :	PNEC (Sewage treatment plant) ( PROPAN-2-OL ; CAS No. : 67-63-0 )
Limit value :	2251 mg/l
Limit value type :	PNEC (Aquatic, freshwater) ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )
Limit value :	0,002 mg/l
Limit value type :	PNEC (Aquatic, marine water) ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )
Limit value :	0,0002 mg/l
Limit value type :	PNEC (Industrial) ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )
Exposure route :	Soil
Limit value :	1,4 mg/kg
Limit value type :	PNEC (Sediment, freshwater) ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )
Limit value :	2,82 mg/kg
Limit value type :	PNEC (Sediment, marine water) (DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )
Limit value :	0,282 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )
Limit value :	0,595 mg/l

## 8.2 Exposure controls

### Personal protection equipment

#### Eye/face protection

Eye glasses with side protection DIN EN 166

Use tightly fitting safety glasses as per Australian Standard AS 1336 and AS/NZS 1337. Safety glasses with side shields

#### Skin protection

##### Hand protection

Short-term exposure (Level 2: < 30 min): disposable gloves to EN374 category III, e.g. nitrile rubber, material thickness 0.1 mm.

Long-term exposure (Level 6: < 480 min): protective gloves to EN374 category III, e.g. nitrile rubber, material thickness 0.7 mm.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Wear impervious rubber gloves (AS2161).

##### Body protection

Body protection: not required.

#### Respiratory protection

Usually no personal respiratory protection necessary.

### General health and safety measures

Keep away from food, drink and animal feedingstuffs. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash hands before breaks and after work. Separate storage of work clothes. When using do not eat, drink, smoke, sniff.

### Occupational exposure controls

# Safety Data Sheet

## according to GHS

Trade name : FD 333 Quick-acting disinfection  
Revision : 30.07.2019  
Print date : 30.07.2019

Version : 1.0.0

### Technical measures to prevent exposure

Provide adequate ventilation.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance :** Liquid

**Colour :** colourless

**Odour :** Lemon

#### Safety relevant basis data

<b>Melting point/melting range :</b>	( 1013 hPa )		No data available	
<b>Initial boiling point and boiling range :</b>	( 1013 hPa )	approx.	70 - 100	°C
<b>Decomposition temperature :</b>	( 1013 hPa )		No data available	
<b>Flash point :</b>			22	°C
<b>Ignition temperature :</b>			425	°C
<b>Lower explosion limit :</b>			3,5	Vol-%
<b>Upper explosion limit :</b>			15	Vol-%
<b>Vapour pressure :</b>	( 50 °C )	approx.	190	hPa
<b>Density :</b>	( 20 °C )		0,87 - 0,91	g/cm <sup>3</sup>
<b>Solvent separation test :</b>	( 20 °C )	<	3	%
<b>Water solubility :</b>	( 20 °C )		100	Wt %
<b>pH value :</b>			6,5 - 7,5	
<b>log P O/W :</b>			No data available	
<b>Flow time :</b>	( 20 °C )	<	12	s      DIN-cup 4 mm
<b>Odour threshold :</b>			No data available	
<b>Maximum VOC content (EC) :</b>			66	Wt %
<b>Oxidising liquids :</b>	Not applicable.			
<b>Explosive properties :</b>	Not applicable.			
<b>Corrosive to metals :</b>	Not corrosive to metals.			

### 9.2 Other information

None

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None, if handled according to order.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7).

### 10.3 Possibility of hazardous reactions

Vapours can form explosive mixtures with air.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials

Oxidizing agent.

### 10.6 Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

### Acute effects

#### Acute oral toxicity

Parameter : LD50  
Exposure route : Oral  
Species : Rat  
Effective dose : > 2000 mg/kg  
Method : OECD 423  
Parameter : ATEmix calculated  
Exposure route : Oral  
Effective dose : not relevant  
Parameter : ATE ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Exposure route : Oral  
Effective dose : 200 mg/kg

#### Practical experience/human evidence

Eye contact: irritation. The product does not have any skin irritating or sensitizing properties. There is no inhalation risk under normal application conditions.

#### Acute dermal toxicity

Parameter : ATEmix calculated  
Exposure route : Dermal  
Effective dose : not relevant  
Parameter : LD50 ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 20 g/kg  
Parameter : LD50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 12800 mg/kg  
Parameter : LD50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 13900 mg/kg  
Method : OECD 402  
Parameter : LD50 ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 3342 mg/kg

#### Acute inhalation toxicity

Parameter : ATEmix calculated  
Exposure route : Inhalation (vapour)  
Effective dose : not relevant  
Parameter : LC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : 125 mg/l  
Exposure time : 4 h  
Method : OECD 403  
Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Species : Mouse  
Effective dose : 27,2 mg/l  
Exposure time : 4 h  
Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Species : Rat



# Safety Data Sheet

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**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

Effective dose : > 25 mg/l  
Exposure time : 6 h  
Method : OECD 403  
Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : 72,6 mg/l  
Exposure time : 4 h

### Irritant and corrosive effects

Rabbit skin: no irritation. Method : OECD 404. Rabbit eye: irritant. Method : OECD 405.

### Sensitisation

Guinea-pig: non-sensitizing. Method : OECD 406.

### Repeated dose toxicity (subacute, subchronic, chronic)

#### Subacute oral toxicity

Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Oral  
Species : Rat  
Effective dose : 1730 mg/kg  
Exposure time : 24 h  
Method : OECD 408

#### Subacute inhalation toxicity

Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : > 20 mg/l

### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Based on available data, the classification criteria are not met.

### 11.5 Additional information

The classification was carried out according to the calculation method of GHS as well as in-house investigations.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity

There are no data available on the mixture itself.

#### Acute (short-term) fish toxicity

Parameter : LC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Oncorhynchus mykiss (Rainbow trout)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 11200 mg/l  
Parameter : LC50 ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Species : Pimephales promelas (fathead minnow)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 0,19 mg/l  
Exposure time : 96 h  
Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Pimephales promelas (fathead minnow)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 9640 mg/l  
Exposure time : 96 h  
Parameter : LC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Leuciscus idus (golden orfe)  
Evaluation parameter : Acute (short-term) fish toxicity

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

Effective dose : > 100 mg/l  
Exposure time : 48 h  
Parameter : LC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Pimephales promelas (fathead minnow)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : > 15000 mg/l  
Exposure time : 96 h

### Chronic (long-term) fish toxicity

Parameter : NOEC ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Ceriodaphnia spec  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 9,6 mg/l  
Parameter : NOEC ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Species : Brachydanio rerio (zebra-fish)  
Evaluation parameter : Chronic (long-term) fish toxicity  
Effective dose : 0,032 mg/l  
Exposure time : 816 h  
Method : OECD 210

### Acute (short-term) daphnia toxicity

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 9200 - 14300 mg/l  
Exposure time : 48 h  
Parameter : EC50 ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 0,062 mg/l  
Exposure time : 48 h  
Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 13299 mg/l  
Exposure time : 48 h  
Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 9714 mg/l  
Exposure time : 24 h  
Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : > 100 mg/l  
Exposure time : 48 h  
Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Ceriodaphnia spec  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 1806 mg/l

### Chronic (long-term) daphnia toxicity

Parameter : NOEC ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Chronic (long-term) daphnia toxicity  
Effective dose : 0,01 mg/l  
Exposure time : 504 h  
Method : OECD 211

### Acute (short-term) algae toxicity

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

---

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Pseudokirchneriella subcapitata  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 1000 mg/l  
Exposure time : 72 h

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Scenedesmus subspicatus  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 100 mg/l  
Exposure time : 72 h

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Species : Algae  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 1800 mg/l  
Exposure time : 168 h

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Chlorella vulgaris  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 275 mg/l

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Selenastrum capricornutum  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 440 mg/l

Parameter : IC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Scenedesmus subspicatus  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 100 mg/l

Parameter : ErC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Pseudokirchneriella subcapitata  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : > 4800 mg/l  
Exposure time : 72 h  
Method : OECD 201

Parameter : ErC50 ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Species : Pseudokirchneriella subcapitata  
Evaluation parameter : Inhibition of growth rate  
Effective dose : 0,026 mg/l  
Exposure time : 96 h  
Method : OECD 201

### Chronic (long-term) algae toxicity

Parameter : NOEC ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Species : Pseudokirchneriella subcapitata  
Evaluation parameter : Chronic (long-term) algae toxicity  
Effective dose : > 0,01 - 0,1 mg/l  
Exposure time : 72 h  
Method : OECD 201

### Bacteria toxicity

Parameter : EC50 ( DIDECYLDIMETHYLAMMONIUM CHLORIDE ; CAS No. : 7173-51-5 )  
Evaluation parameter : Bacteria toxicity  
Effective dose : 11 mg/l  
Exposure time : 3 h  
Method : OECD 209

Parameter : EC50 ( PROPAN-2-OL ; CAS No. : 67-63-0 )  
Evaluation parameter : Bacteria toxicity  
Effective dose : > 100 mg/l

Parameter : EC10 ( PROPAN-2-OL ; CAS No. : 67-63-0 )

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

Species : Pseudomonas putida  
Evaluation parameter : Bacteria toxicity  
Effective dose : 5175 mg/l  
Exposure time : 18 h

### Effects in sewage plants

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Inoculum : Effects in sewage plants  
Effective dose : 5800 mg/l  
Exposure time : 4 h

## 12.2 Persistence and degradability

### Abiotic degradation

No data available.

### Biodegradation

Readily biodegradable (according to OECD criteria). The surfactant contained in this mixture complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

## 12.3 Bioaccumulative potential

No information available.

## 12.4 Mobility in soil

### Known or predicted distribution to environmental compartments

There are no data available on the preparation itself.

### Adsorption/Desorption

## 12.5 Results of PBT and vPvB assessment

No information available.

## 12.6 Other adverse effects

No information available.

## 12.7 Additional ecotoxicological information

Prevent from flowing into surface water/ground water.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product/Packaging disposal

##### Waste codes/waste designations according to EWC/AVV

##### Waste code product

Concentrate/larger quantities: 18 01 06\* (disinfectant).

##### Waste treatment options

##### Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

##### Appropriate disposal / Package

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Contact a specialist disposal company or the local waste regulator for advice. This should be done in accordance with 'The Hazardous Waste Act'. Can be eliminated with domestic garbage on condition it complies with local regulations.

## SECTION 14: Transport information

### 14.1 UN number

UN 1170

### 14.2 UN proper shipping name

#### Land transport (ADR/RID)

ETHANOL, SOLUTION

# Safety Data Sheet

## according to GHS

Trade name : FD 333 Quick-acting disinfection  
Revision : 30.07.2019  
Print date : 30.07.2019

Version : 1.0.0

### Sea transport (IMDG)

ETHANOL, SOLUTION

### Air transport (ICAO-TI / IATA-DGR)

ETHANOL, SOLUTION

#### 14.3 Transport hazard class(es)

##### Land transport (ADR/RID)

Class(es) : 3  
Classification code : F1  
Hazard identification number (Kemler No.) : 33  
Tunnel restriction code : D/E  
Special provisions : LQ 1 | E 2  
Hazard label(s) : 3

##### Sea transport (IMDG)

Class(es) : 3  
EmS-No. : F-E / S-D  
Special provisions : LQ 1 | E 2  
Hazard label(s) : 3

##### Air transport (ICAO-TI / IATA-DGR)

Class(es) : 3  
Special provisions : E 2  
Hazard label(s) : 3

#### 14.4 Packing group

II

#### 14.5 Environmental hazards

Land transport (ADR/RID) : No  
Sea transport (IMDG) : No  
Air transport (ICAO-TI / IATA-DGR) : No

#### 14.6 Special precautions for user

None

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

not applicable

## SECTION 15: Regulatory information

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

#### National regulations

EPA NZ Classes of hazardous properties class 3—flammable liquids  
NZ HSNO Approval: HSR001144: Ethanol, HSNO Approval: HSR001180: 2-propanol, HSNO Approval: HSR0027080: Didecyl-dimethylammonium chloride

#### Restrictions of occupation

According to directive 94/33/EC, juveniles are only allowed to handle this product as long as all effects of dangerous substances are prevented.

### 15.2 Chemical safety assessment

For this mixture a chemical safety assessment has not been carried out.

## SECTION 16: Other information

### 16.1 Indication of changes

None

### 16.2 Abbreviations and acronyms

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

ATE = Acute Toxicity Estimates  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
CMR = Carcinogen, Mutagen or Reproductive toxicant  
CO<sub>2</sub> = Carbon dioxide  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EC = European Commission  
EC50 = Half maximal effective concentration  
EN = European Standard (Norm)  
EU = European Union  
EUH statement = CLP-specific Hazard statement  
EWC = European Waste Catalogue  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
H statement = GHS Hazard statement  
IATA = International Air Transport Association ICAO-TI = International Civil Aviation Organization-Technical Instructions  
IMDG = International Maritime Dangerous Goods  
LC50 = Median lethal concentration  
LD50 = Median lethal dose  
LogPow = Logarithm of the octanol/water partition coefficient  
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NOEC/NOEL = No observed effect concentration/level  
OECD = Organisation for Economic Co-operation and Development  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RMM = Risk Management Measure  
RRN = REACH Registration Number  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
SVHC = Substances of Very High Concern  
TLV/STEL = Threshold limit value/short-term exposure limit  
TLV/TWA = Threshold limit value/time weighted average  
UN = United Nations  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

### 16.3 Key literature references and sources for data

Standard EN420:2003 General requirements for protective gloves: disposable gloves, e.g. nitrile rubber, material thickness 0.1 mm (Australian Standard 2161).  
Long-term exposure (Level 6: < 480 min): protective gloves, e.g. nitrile rubber, material thickness 0.7 mm (Australian Standard 2161).  
Personal eye protection - Eye and face protectors for occupational applications: safety glasses (Australian Standard AS 1336 and AS/NZS 1337.1:2010).

### 16.4 Classification for mixtures and used evaluation method according to GHS

No information available.

### 16.5 Relevant H- and EUH-phrases (Number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

### 16.6 Training advice

# Safety Data Sheet

## according to GHS

**Trade name :** FD 333 Quick-acting disinfection  
**Revision :** 30.07.2019  
**Print date :** 30.07.2019

**Version :** 1.0.0

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None

### 16.7 Additional information

Notice the directions for use on the label.

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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