



**SDS Biocidal ZF**  
**according to Regulation (EC) no.: 1907/2006 (REACH) and 1272/2008 (CLP)**  
Date of issue/last revision: 10/2018

**1. Identification of the substance/preparation and the company/undertaking**

- 1.1. Product number:** WAK-ZF-1; WAK-ZF-6; WAK-ZF-12; WAK-ZF-5  
**Trade name:** Biocidal ZF
- 1.2. Application:** Special reagent for application in research laboratories to protect cell cultures from microbial contamination
- 1.3. Company Name:** WAK-Chemie Medical GmbH      **Australian Distributor: Scientifix Pty Ltd**  
Siemensstr. 9      **F1/2A Westall Road**  
61449 Steinbach/Ts      **Clayton, VIC 3168**  
Tel: +49 6171 2843 0      **Phone: 03 8540 5900 / Fax: +613 9543 7827**  
Fax: +49 6171 695 646      **Web: www.scientifix.com.au**  
E-Mail: [info@wak-chemie.com](mailto:info@wak-chemie.com)
- 1.4. Emergency phone:** 03 8540 5900  
(on weekdays during office hours, 9 am – 5 pm AEDT)

**2. Hazards identification**

**2.1 Classification of the mixture according to EC No 1272/2008**

Aquatic Chronic 3; H412

**2.1. Label elements according to EC No 1272/2008**

Hazard pictograms (CLP): Not required  
Signal Word: Not required  
Hazard Statements: Aquatic Chronic 3; H412

**2.3. Other Hazards**

Biocidal ZF may be weakly irritant to eyes and mucosa in random cases. Avoid contact with eyes and mucosa. Do not breathe spray.  
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

**Unique blend of quarternary ammonium compounds and auxilliary components.** 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.

### 4. First aid measures

#### 4.1. Description of first aid measures:

In case of ingestion wash mouth with water, drink plenty of water. Rinse eyes thoroughly with water after eye contact.

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

No data available.

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

If medical condition worsens, consult a physician. Treat allergic reactions symptomatically.

### 5. Fire fighting measures

#### 5.1. Extinguishing media:

Non-inflammable, all extinguishing agents can be applied

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

Nature of combustion products not known.

#### 5.3. Advice for firefighters:

Wear self contained breathing apparatus for firefighting if necessary.

### 6. Accidental release measures

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

Avoid contact with eyes and skin.

P261 Avoid breathing fume/vapours/spray. P264 Wash hands thoroughly after use.

P272 Contaminated work clothing should not be allowed out of the work place.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P362 Take off contaminated clothing and wash before reuse. P363 Wash contaminated clothing before reuse.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

P332+P313 If skin irritation occurs: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

#### 6.2. Environmental precautions:

P273 Avoid release to the environment. Let not get in touch with surface waters. Dilute 1:10 and dispose via canalisation in accordance with local regulations.

#### 6.3. Methods and materials for containment and cleaning up:

Take up with absorbent material, rinse with water and dispose via canalisation.

#### 6.4. Reference to other sections:

For disposal see section 13.



## 7. Handling and storage

### 7.1. Precautions for safe handling:

Avoid contact with eyes and mucosa. Wear protective clothing (safety glasses with side protection, chloropren gloves). Do not breathe spray.

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

P402+P404 Store in a dry place. Store container closed. P410 Protect from sunlight. P411 Store at temperatures of not more than 35°C. Store light-protected at room temperature.

### 7.3. Specific end use(s):

#### General Application:

Biocidal ZF is indicated to regularly disinfect the surfaces of cell culture incubators and laminar flow hoods.

Biocidal ZF is sprayed homogenously onto the destined surface. Let the vapour settle down on the surface and let dry. The settled vapour forms a symmetric homogenous layer on the treated surface which serves as an antimicrobial protective film. This layer maintains its protective capacity for up to four weeks. In order to profit from this longterm protection, do not wipe off the disinfectant layer after application of the spray.

#### Application in Cell Culture Incubators:

The active ingredients of Biocidal ZF are non-volatile. Therefore right after the Biocidal ZF spray has settled on the treated surface cell culture containers can be put back into the cell culture incubator without risking harm to the cell cultures. Once the spray has completely settled on the surfaces no harmful components can get in touch with cell cultures via the air.

Due to the longterm protection the spray should be reapplied after two to four weeks.

#### Application in Laminar Flow Hoods:

In laminar flow hoods Biocidal ZF should be applied after each workshift. After application the protection of the surfaces will prevail until the next usage of the hood within a period of four weeks after application. Therefore the surfaces of the hood do not need to be disinfected before the consecutive workshift. Due to the longterm protection the hood only needs to be disinfected with Biocidal ZF after each workshift.

Biocidal ZF does not form combustive gas mixtures in the laminar flow hood, therefore there is no danger of combustions when working with flames under the hood due to Biocidal ZF.

## 8. Exposure controls/personal protection

### 8.1. Control parameters

Contains no substances with occupational exposure limit values. Active ingredients are non-volatile. Limitation and surveillance of exposure at workplace is not necessary.

### 8.2. Exposure controls

Avoid contact with eyes and skin.

P261 Avoid breathing fume/vapours/spray. P264 Wash hands thoroughly after use.

P272 Contaminated work clothing should not be allowed out of the work place.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P362 Take off contaminated clothing and wash before reuse. P363 Wash contaminated clothing before reuse.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

P332+P313 If skin irritation occurs: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.



## 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties:

Appearance:	colorless liquid
Odour:	odourless
Chemical stability:	stable at pH > 6
pH-value:	8,5 +/- 0,5
Boiling point:	100° C
Flaming point:	non flammable
Oxidizing properties:	none
Vapour pressure:	~ H <sub>2</sub> O
Relative density:	0,99 +/- 0,01 g/cm <sup>3</sup>
Solubility:	without limit in water
Water solubility:	without limit in water
n-octanol-water-partition-coefficient:	~ H <sub>2</sub> O
Viscosity:	~ H <sub>2</sub> O
Steam density:	~ H <sub>2</sub> O
Evaporation rate:	~ H <sub>2</sub> O

### 9.2. Other information:

Not data available.

## 10. Stability and reactivity

### 10.1. Reactivity:

No decomposition if stored and applied as intended.

### 10.2. Chemical stability:

The product is chemically stable.

### 10.3. Possibility of hazardous reactions:

Under normal conditions of storage and use, hazardous reactions will not occur

### 10.4. Conditions to avoid:

Avoid temperatures above 35°C.

### 10.5. Incompatible materials:

Not data available.

### 10.6. Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

If used as intended no health-hazardous events are to be expected.

LD<sub>50</sub> rat: > 50 000 mg / kg body weight

Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available



Specific target organ toxicity (single exposure)	No data available
Specific target organ toxicity (repeated exposure)	No data available
Aspiration hazard	No data available

## 12. Ecological information

### 12.1. Toxicity:

Component: Didecyl dimethyl ammonium chloride

Ecotoxicological Data:

LC<sub>50</sub> 96 h fish: 0,48 mg/l

LC<sub>50</sub> 48 h daphnia: 0,03 mg/l

IC<sub>50</sub> 72 h algea: 0,01- 0,1 mg/l

Component: C<sub>12</sub>-C<sub>16</sub>-alkyl-dimethylammoniumchlorid

Ecotoxicological Data:

LC<sub>50</sub> 96 h fish: 0,85 mg/l

LC<sub>50</sub> 48 h daphnia: 0,015 mg/l

IC<sub>50</sub> 72 h algea: 0,03 mg/l

The previous figures refer to the undiluted components, they do not apply for the solution Biocidal ZF. Biocidal ZF contains only readily biodegradable substances. The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

### 12.2. Persistence and degradability:

Biologically degradable

### 12.3. Bioaccumulative potential:

Not data available.

### 12.4. Mobility in soil:

Not data available.

### 12.5. Results of PBT and vPvB 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.

### 12.6. Other adverse effects

Not data available.

## 13. Disposal considerations

Does not contain any substances that are not degradable in clarification plants. All compounds are sufficiently diluted in canalisation. Dilute 1:10 and dispose via canalisation.

P501 Dispose of contents after dilution 1:10 to canalisation in accordance with local regulations.

P501 Dispose of container after rinsing to waste in accordance with local regulations.



#### 14. Transport information

##### ADR/RID/AND/IMG/IATA:

14.1. UN class:	Not a hazardous substance or mixture.
14.2. Proper shipping name:	Not a hazardous substance or mixture.
14.3. Transport Hazard Class :	Not a hazardous substance or mixture.
14.4. Packing group:	Not a hazardous substance or mixture.
14.5. Environmental Hazard no.:	Not a hazardous substance or mixture.
14.6. Special precautions for enduser:	see sections 6. and 8.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	not applicable

#### 15. Regulatory information

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

Labelling according EC No 1272/2008  
Aquatic Chronic 3; H412

##### 15.2. Chemical safety assessment:

A chemical safety assessment is not required

#### 16. Other information

##### 16.1. Explanation phrases and symbols:

Aquatic Chronic	Chronic aquatictoxicity
H412	Harmful to aquatic life with long-lasting effects
P261	Avoid breathing dust/fumes/gas/mist/vapours/spray
P264	Wash hands thoroughly after handling
P272	Contaminated work clothing should not be allowed out of the workplace
P273	Avoid release to the environment
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention
P362	Take off contaminated clothing.
P402+P404	Store in a dry place. Store in a closed container.
P410	Protect from sunlight.
P411	Store at temperatures not exceeding 35°C.

##### 16.2. Methods according to Article 9 of the Regulation (EC) No 1272/2008 of the evaluation of data for classification purposes:

Classification in accordance with Regulation (EC) No 1272/2008, Annex VII (Conversion table)



**16.3. Changes since the last version:**

Reedited according to EC Regulation No. 1272/2008 (CLP Regulation)

Composed by: Florian Pobitschka

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