

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 24.06.2015

Version: 5. 0

Revision: 24.06.2015

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

- **1.1 Product identifier**
- **Trade name:** **DESINTEC® FL-R2**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against:** No further relevant information available.
- **Application of the substance / the preparation:** Cleaning material / Detergent
- **Uses advised against -**
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier/Manufacturer:**  
VitaVis GmbH  
Industrieweg 110  
48155 Münster  
Germany  
  
Tel.: +49 (0) 251-682-1144  
Fax: +49 (0) 251-682-2008
- **Email competent person:** sds@kft.de
- **Information department:** See supplier/manufacturer
- **1.4 Emergency telephone number:**  
National Poison Information Service (NPIS)  
24 hour national number                      professionals only  
0844 892 0111  
  
National Health Service (NHS)  
24 hour national number                      consumer  
England and Scotland: 111  
Wales: 0845 46 47  
Northern Ireland: call your local General Practitioner  
  
Call 999 if there is a life-threatening incident.

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Met. Corr.1    H290 May be corrosive to metals.  
Skin Corr. 1B H314 Causes severe skin burns and eye damage.  
Eye Dam. 1    H318 Causes serious eye damage.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.  
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#### · Hazard pictograms



GHS05

#### · Signal word Danger

#### · Hazard-determining components of labelling:

phosphoric acid  
Phosphoric acid, isotridecyl ester

#### · Hazard statements

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

#### · Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/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.  
P310 Immediately call a POISON CENTER/doctor.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P390 Absorb spillage to prevent material damage.

#### · 2.3 Other hazards

#### · Results of PBT and vPvB assessment

- PBT: Not applicable
- vPvB: Not applicable

### SECTION 3: Composition/information on ingredients

#### · 3.2 Chemical characterisation: Mixtures

· **Description:** Mixture of the substances listed below with nonhazardous additions.

#### · Dangerous components:

CAS: 7664-38-2	phosphoric acid	25-50%
EINECS: 231-633-2	Met. Corr.1, H290; Skin Corr. 1B, H314	
Index number: 015-011-00-6		
Reg.nr.: 01-2119485924-24-xxxx		
CAS: 112-34-5	2-(2-butoxyethoxy)ethanol	5-10%
EINECS: 203-961-6	Eye Irrit. 2, H319	
Index number: 603-096-00-8		
Reg.nr.: 01-2119475104-44-xxxx		
CAS: 68955-55-5	Amines, C12-18-alkyldimethyl, N-oxides	< 2.5%
EINECS: 273-281-2	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 52933-07-0	Phosphoric acid, isotridecyl ester	< 2.5%
EINECS: 258-261-3	Skin Corr. 1B, H314	

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

### SECTION 4: First aid measures

#### · 4.1 Description of first aid measures

#### · General information:

First aid personnel should pay attention to their own safety.  
Symptoms of poisoning may occur even after several hours; therefore medical observation is suggested for at least 48 hours after the accident.

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- Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness, place patients on their side in a stable position for transportation.
  - **After skin contact:**  
Take-off and remove wetted clothing, shoes and stocking immediately. Rinse affected parts of the body with plenty of water.  
Immediate medical treatment required. Failure to treat burns can prevent wounds from healing.
  - **After eye contact:**  
Protect unharmed eye.  
Rinse the eyes with open eyelids for 10 - 15 minutes with water.  
Immediate transport to ophthalmologist or ophthalmic clinic.
  - **After swallowing:**  
Rinse mouth with water.  
Drink plenty of water, but never give anything to an unconscious person.  
Do not induce vomiting; call medical help immediately.
  - **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
  - **4.3 Indication of any immediate medical attention and special treatment needed**  
Symptomatic treatment  
(decontamination, vital functions)  
In cases of irritation to the lungs, initial treatment with Dexametason metered aerosol

## SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
The product is not combustible and does not support any combustion.  
Use fire fighting measures suiting the environment.
- **For safety reasons unsuitable extinguishing agents:** No data available
- **5.2 Special hazards arising from the substance or mixture**  
In case of fire, the following can be released:  
Carbon monoxide and carbon dioxide  
Phosphorus oxides
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information:**  
Heating leads to increased pressure and danger of bursting and explosion. Immediately cool neighbouring packages and containers with sprayed water and, if possible, remove them out of the danger zone.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**



Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.  
Use respiratory protective device against the effects of fumes/dust/aerosol.

- **6.2 Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Do not allow to penetrate the ground/soil.
- **6.3 Methods and material for containment and cleaning up:**  
Dam up larger quantities and pump into containers.  
Small quantities:  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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Make sure to recycle or dispose of in suitable receptacles.

#### · 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

### · 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with eyes and skin.

Avoid inhalation of vapours.

· **Information about protection against explosions and fires:** Observe the general rules of industrial fire protection.

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

#### · Storage:

#### · Requirements to be met by storerooms and receptacles:

Store container tightly sealed at a cool and dry place with sufficient ventilation.

#### · Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from feed.

Do not store together with alkalis (caustic solutions).

Do not store together with oxidizing agents .

Refer to national regulations for storing hazardous chemicals.

#### · Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

#### · Recommended storage temperature: 0-40 °C

#### · Storage class: 8B: Non-flammable corrosive hazardous materials

#### · 7.3 Specific end use(s) Follow the directions!

## SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

### · 8.1 Control parameters

#### · Components with limit values that require monitoring at the workplace:

#### 7664-38-2 phosphoric acid

WEL (Great Britain) Short-term value: 2 mg/m<sup>3</sup>

Long-term value: 1 mg/m<sup>3</sup>

IOELV (European Union) Short-term value: 2 mg/m<sup>3</sup>

Long-term value: 1 mg/m<sup>3</sup>

#### 112-34-5 2-(2-butoxyethoxy)ethanol

WEL (Great Britain) Short-term value: 101.2 mg/m<sup>3</sup>, 15 ppm

Long-term value: 67.5 mg/m<sup>3</sup>, 10 ppm

IOELV (European Union) Short-term value: 101.2 mg/m<sup>3</sup>, 15 ppm

Long-term value: 67.5 mg/m<sup>3</sup>, 10 ppm

#### · DNELs

#### 7664-38-2 phosphoric acid

Inhalative DNEL/Cons/LLE 0.73 mg/m<sup>3</sup> (human)

DNEL/In/LLE 1 mg/m<sup>3</sup> (human)

DNEL/In/SLE 2 mg/m<sup>3</sup> (human)

· **Additional information:** The lists that were valid during the creation were used as basis.

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#### · 8.2 Exposure controls

##### · Personal protective equipment:

##### · General protective and hygienic measures:

- Keep away from foodstuffs, beverages and feed.
- Do not eat or drink while working.
- Remove all soiled and contaminated clothing immediately.
- Wash hands before breaks and at the end of work.
- Use skin protection cream for skin protection.
- Avoid any contact with eyes and skin.
- After skin contact, cleanse skin thoroughly.
- After contact with eyes, rinse immediately.
- Provide eye bath.
- If larger quantities are handled, provide emergency showers.

##### · Breathing equipment:

In case of unintentional release of substance, exceeding the occupational exposure limit value:

Short term filter device:

Filter P2

##### · Protection of hands:

Chemical resistant gloves (EN 374)

The glove material has to be impermeable and resistant to the product/substance/preparation.

Selection of the glove material in consideration of the penetration times, rates of diffusion and the degradation

After use of gloves apply skin-cleaning agents and skin cosmetics.

##### · Material of gloves:

1 - 4 hours: butyl rubber, nitrile rubber

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

##### · Penetration time of glove material:

The exact penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.

##### · Eye protection:

Tightly sealed goggles

If splashing possible, wear full face protection.

##### · Body protection: Protective work clothing

## SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information:

##### · Appearance:

Form: Liquid

Colour: Yellowish

· Odour: Light

· Odour threshold: Not applicable

· pH-value at 20 °C: 0.7-1.3

##### · Change in condition:

Melting point/Melting range: Not determined

· Flash point: Not applicable

· Self ignition temperature: Product is not self-igniting.

· Danger of explosion: Product does not present an explosion hazard.

##### · Density:

Relative density: 1.16-1.2

##### · Solubility in / Miscibility with

Water: Soluble

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· 9.2 Other information	No further relevant information available
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### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications
- **10.3 Possibility of hazardous reactions** Reactions with above-mentioned substances
- **10.4 Conditions to avoid** No further relevant information available
- **10.5 Incompatible materials:**
  - Bases
  - Metals
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
- **LD/LC50 values that are relevant for classification:** ATE oral: >5000 mg/kg
- **Primary irritant effect:**
- **Skin corrosion/irritation**
  - Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
  - Caustic effect
  - Causes serious eye damage.
- **On respiratory tract:** Irritation of respiratory tract possible
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Repeated dose toxicity:**
  - 7664-38-2 phosphoric acid**
  - Oral NOAEL 250 mg/kg/day (rat)
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity**
  - 7664-38-2 phosphoric acid**
  - Oral NOAEL (F1) ≥ 500 mg/kg bw/day (rat)
  - Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**
  - Presently there are no ecotoxicological values available.
- **7664-38-2 phosphoric acid**
  - EC<sub>50</sub> 100 mg/l (Algae)
  - 100 mg/l (Invertebrates)
  - EC<sub>50</sub>/48h > 100 mg/l (Daphnia magna) (OECD 202)
  - LC<sub>0</sub> 100-1000 mg/l (fish)

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NOEC 100 mg/l (Algae)

- **12.2 Persistence and degradability** The biological degradation of the surfactants complies with the requirements of EC 648/2004.
- **12.3 Bioaccumulative potential** No further relevant information available
- **12.4 Mobility in soil** No further relevant information available
- **Ecotoxicological effects:**
- **Remark:** Harmful effect due to pH-value shift
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous to water  
According to appendix 4 of VwVwS dated 17.05.1999 (German regulation)  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Danger to drinking water is possible if large quantities leak into the ground or into water course.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable
- **vPvB:** Not applicable
- **12.6 Other adverse effects** No further relevant information available

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation:**  
Must be recycled or disposed of according to the regulations. Waste has to be classified according to the European Waste Catalogue based on the identification of the waste generating source.  
Disposal according to instructions of local authorities
- **European waste catalogue:**  
20 00 00 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS  
20 01 00 separately collected fractions (except 15 01)  
20 01 14\* acids
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• <b>14.1 UN-Number</b></li> <li>• <b>ADR, IMDG, IATA</b></li> </ul>   | UN1805  |
| <ul style="list-style-type: none"> <li>• <b>14.2 UN proper shipping name</b></li> <li>• <b>ADR</b></li> <li>• <b>IMDG, IATA</b></li> </ul>  | 1805 PHOSPHORIC ACID, SOLUTION<br>PHOSPHORIC ACID, SOLUTION |
| <ul style="list-style-type: none"> <li>• <b>14.3 Transport hazard class(es)</b></li> <li>• <b>ADR</b></li> </ul>  |   |
| <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <ul style="list-style-type: none"> <li>• <b>Class</b></li> </ul> </div> </div> |   |
| 8 (C1) Corrosive substances   |   |

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· Label	8
· IMDG, IATA	
	
· Class	8 Corrosive substances
· Label	8
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups:	Acids
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ):	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category:	3
· Tunnel restriction code:	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IATA	
· Remarks:	Packing Instructions: For Limited Quantities: Y841 (Max Net Qty/Pkg: 1.0 l) Passenger and Cargo Aircraft: 852 (Max Net Qty/Pkg: 5 l) Cargo Aircraft only: 856 (Max Net Qty/Pkg: 60 l)
· UN "Model Regulation":	UN1805, PHOSPHORIC ACID, SOLUTION, 8, III

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- National regulations
- Information about limitation of use: Take note of Directive 94/33/EC on the protection of young people at work.
- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water

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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Replaces version dated:** Version/s 1-4 is/are not available in this language.

- **Relevant phrases**

H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

- **Department issuing MSDS:**

KFT Chemieservice GmbH  
Im Leuschnerpark. 3 64347 Griesheim  
Postfach 1451 64345 Griesheim  
Germany

Phone: +49 6155 86829-0 Fax: +49 6155 86829-25

Safety Data Sheet Service: +49 6155 86829-22

- **Contact:** Barbara Stark

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL: Derived No-Effect Level (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Met. Corr.1: Corrosive to metals, Hazard Category 1  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

- **Sources:** MSDS of the supplier