

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Trade name : Vector® cleaner  
Revision date : 21.06.2023  
Print date : 03.07.2023

Version (Revision) : 4.1.0 (4.0.0)

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

### 1.1 Product identifier

Vector® cleaner  
Unique Formula Identifier : K61D-V9UV-TG0C-H4AG

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

#### Relevant identified uses

Special detergent for the hose system of the Dürr Vector®.

#### Products Category [PC]

PC 35 - Washing and cleaning products

#### 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

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 Great Britain/Ireland:

DÜRR DENTAL [Products] UK Ltd., 14 Linnell Way - Telford Way Industrial Estate, Kettering Northants NN16 8PS, United Kingdom, info@duerruk.com

### 1.4 Emergency telephone number

INT: +49 6132 84463 (24 h/7 d)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 [CLP]

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

#### Classification procedure

The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP] as well as in-house investigations.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

##### Hazard pictograms



Exclamation mark (GHS07)

##### Signal word

Warning

##### Hazard statements

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H319 Causes serious eye irritation.

### Precautionary statements

P280 Wear protective gloves and eye/face protection.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
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+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container to hazardous or special waste collection point.

### 2.3 Other hazards

The mixture does not contain any substances that have endocrine disrupting properties. The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Description

Vector® cleaner contains inorganic acids, non-ionic surfactants and auxiliary agents in aqueous solution.

#### Hazardous ingredients

PHOSPHORIC ACID ; REACH No. : 01-2119485924-24 ; EC No. : 231-633-2; CAS No. : 7664-38-2

Weight fraction :  $\geq 5 - < 8 \%$

Classification 1272/2008 [CLP] : Met. Corr. 1 ; H290 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318

Specific Conc. Limits : Eye Dam. 1 ; H318: C  $\geq 25 \%$  • Skin Corr. 1B ; H314: C  $\geq 25 \%$  • Skin Corr. 1C ; H314: C  $\geq 25 \%$  • Eye Irrit. 2 ; H319: C  $\geq 10 \%$  • Skin Irrit. 2 ; H315: C  $\geq 10 \%$

#### Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

Remove contaminated, saturated clothing immediately. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### 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.

#### Following 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.

### 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

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Carbon dioxide (CO<sub>2</sub>) Extinguishing powder Water spray jet Water mist The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

### Unsuitable extinguishing media

Full water jet

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

None known.

### Hazardous combustion products

None known.

### 5.3 Advice for firefighters

Adapt protective equipment to surrounding fire.

### Special protective equipment for firefighters

Adapt protective equipment to surrounding fire.

## SECTION 6: Accidental release measures

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

Use personal protection equipment. 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 (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. Provide adequate ventilation. Do not breathe vapour/aerosol.

#### Protective measures

##### Measures to prevent fire

Usual measures for fire prevention. When using do not smoke.

### 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 and in a well-ventilated place.

#### Hints on joint storage

Store the foodstuffs separately.

### 7.3 Specific end use(s)

Observe instructions for use.

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### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational exposure limit values

PHOSPHORIC ACID ; CAS No. : 7664-38-2

Limit value type (country of origin) : STEL ( EC )

Limit value : 2 mg/m<sup>3</sup>

Version : 20.06.2019

Limit value type (country of origin) : TWA ( EC )

Limit value : 1 mg/m<sup>3</sup>

Version : 20.06.2019

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

Limit value : 2 mg/m<sup>3</sup>

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

Limit value : 1 mg/m<sup>3</sup>

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

Limit value : 2 mg/m<sup>3</sup>

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

Limit value : 1 mg/m<sup>3</sup>

##### DNEL-/PNEC-values

There are no data available on the preparation itself.

##### DNEL/DMEL

PHOSPHORIC ACID ; CAS No. : 7664-38-2

Limit value type : DNEL Consumer (local)

Exposure route : Inhalation

Exposure frequency : Long-term

Limit value : 0,73 mg/m<sup>3</sup>

Limit value type : DNEL worker (local)

Exposure route : Inhalation

Exposure frequency : Long-term

Limit value : 2,92 mg/m<sup>3</sup>

Limit value type : DNEL worker (systemic)

Exposure route : Inhalation

Exposure frequency : Long-term

Limit value : 1 mg/m<sup>3</sup>

#### 8.2 Exposure controls

##### Personal protection equipment

###### Eye/face protection

Eye glasses with side protection EN 166

###### 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.

###### Body protection

Body protection: not required.

###### Respiratory protection

Usually no personal respiratory protection necessary.

##### General information

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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.

### Other protection measures

Provide adequate ventilation.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance :** Liquid

**Colour :** light yellow

**Odour :** odourless

#### Safety characteristics

<b>Melting point/freezing point :</b>	( 1013 hPa )				not determined
<b>Initial boiling point and boiling range :</b>	( 1013 hPa )	approx.	100	°C	
<b>Decomposition temperature :</b>	( 1013 hPa )				not determined
<b>Flash point :</b>					not applicable
<b>Auto-ignition temperature :</b>					not applicable
<b>Lower explosion limit :</b>					not applicable
<b>Upper explosion limit :</b>					not applicable
<b>Vapour pressure :</b>	( 50 °C )				not determined
<b>Density :</b>	( 20 °C )	approx.	1,03	g/cm <sup>3</sup>	
<b>Solvent separation test :</b>	( 20 °C )	<	3	%	
<b>Water solubility :</b>	( 20 °C )		100	Weight-%	
<b>pH value :</b>			1 - 2		
<b>log P O/W :</b>					No data available
<b>Flow time :</b>	( 20 °C )	<	20	s	DIN-cup 4 mm
<b>Odour threshold :</b>					No data available
<b>Maximum VOC content (EC) :</b>			0	Weight-%	
<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). Exothermic reaction with alkalis.

### 10.3 Possibility of hazardous reactions

Exothermic reaction with alkalis.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials

Alkali (lye), concentrated.

### 10.6 Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

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### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

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

#### Acute oral toxicity

Parameter : ATEmix  
Exposure route : Oral  
Effective dose : not relevant  
Parameter : LD50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )  
Exposure route : Oral  
Species : Rat  
Effective dose : 1530 mg/kg

#### Practical experience/human evidence

Irritating to eyes.

#### Acute dermal toxicity

Parameter : ATEmix  
Exposure route : Dermal  
Effective dose : not relevant  
Parameter : LD50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 2740 mg/kg

#### Acute inhalation toxicity

Parameter : ATEmix  
Exposure route : Inhalation (vapour)  
Effective dose : not relevant  
Parameter : LD50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )  
Exposure route : Inhalation  
Species : Rabbit  
Effective dose : 1,689 mg/l

#### Corrosion

Eye contact: irritation.

#### Skin corrosion/irritation

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

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

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

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

##### Carcinogenicity

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

##### Germ cell mutagenicity

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

##### Reproductive toxicity

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.

### 11.2 Information on other hazards

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### Endocrine disrupting properties

The mixture does not contain any substances that have endocrine disrupting properties.

### Additional information

The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP] as well as in-house investigations.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity

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

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

Parameter : LC50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )

Species : Fish

Evaluation parameter : Acute (short-term) fish toxicity

Effective dose : 3 - 3,5 mg/l

Exposure time : 96 h

Parameter : LC0 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )

Species : Fish

Evaluation parameter : Acute (short-term) fish toxicity

Effective dose : 100 - 1000 mg/l

#### Acute (short-term) toxicity to crustacea

Parameter : EC50 ( PHOSPHORIC ACID ; CAS No. : 7664-38-2 )

Species : Daphnia magna (Big water flea)

Evaluation parameter : Acute (short-term) daphnia toxicity

Effective dose : > 100 mg/l

Method : OECD 202

### 12.2 Persistence and degradability

#### Abiotic degradation

No data available.

#### Biodegradation

The surfactants comply with OECD guidelines and are therefore biodegradable.

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

#### Distribution

There are no data available on the preparation itself.

### 12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6 Endocrine disrupting properties

The mixture does not contain any substances that have endocrine disrupting properties.

### 12.7 Other adverse effects

No information available.

### 12.8 Additional ecotoxicological information

Prevent from flowing into surface water/ground water.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Directive 2008/98/EC (Waste Framework Directive)

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### After intended use

#### Disposal operations

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

#### Recovery operations

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

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

Concentrate/larger quantities: 20 01 14\* acids.

## SECTION 14: Transport information

### 14.1 UN number

No dangerous good in sense of these transport regulations.

### 14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

### 14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

### 14.4 Packing group

No dangerous good in sense of these transport regulations.

### 14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

### 14.6 Special precautions for user

None

### 14.7 Maritime transport in bulk according to IMO instruments

not applicable

## SECTION 15: Regulatory information

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

#### EU legislation

##### Authorisations and/or restrictions on use

##### Restrictions on use

##### Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

Use restriction according to REACH annex XVII, no. : 3, 75

#### National regulations

##### 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

15. Restrictions on use

### 16.2 Abbreviations and acronyms

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

ATE = Acute Toxicity Estimates

CAS = Chemical Abstracts Service



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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

None

### 16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP] as well as in-house investigations.

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

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

### 16.6 Training advice

None

### 16.7 Additional information

Follow the instructions 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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