

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**CONVOCal, descaler**

Revision date: 13.12.2017

Product code: 3007018

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

CONVOCal, descaler

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Washing and cleaning products (including solvent based products)

The product is intended for professional use.

**1.3. Details of the supplier of the safety data sheet**

Company name: Convotherm Elektrogeräte GmbH

Street: Talstr. 35

Place: D-82436 Eglfing

Telephone: +49 8847 67 0

Telefax: +49 8847 414

Contact person: Kundendienst - after sales

**1.4. Emergency telephone**

+49 89 19240 Giftnotruf Rechts der Isar 24h Mo-So

**number:****SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

May be corrosive to metals.

Causes skin irritation.

Causes serious eye irritation.

**2.2. Label elements****Regulation (EC) No. 1272/2008**

Signal word: Warning

Pictograms:

**Hazard statements**

H290 May be corrosive to metals.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

**Precautionary statements**

P234 Keep only in original packaging.

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.

P337+P313 If eye irritation persists: Get medical advice/attention.

**Special labelling of certain mixtures**

EUH208 Contains methenamine. May produce an allergic reaction.

**Additional advice on labelling**

The mixture has a low buffer capacity (Acid/Alkaline reserve). (Young et al.)

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### 2.3. Other hazards

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
5329-14-6	sulfamic acid			< 15 %
	226-218-8	016-026-00-0	01-2119488633-28	
	Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 3; H315 H319 H412			
7664-38-2	Phosphoric acid			< 15 %
	231-633-2	015-011-00-6	01-2119485924-24	
	Met. Corr. 1, Skin Corr. 1B; H290 H314			

Full text of H and EUH statements: see section 16.

#### Labelling for contents according to Regulation (EC) No 648/2004

preservation agents (Methenamine).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Take off contaminated clothing.

#### After inhalation

Provide fresh air.

#### After contact with skin

After contact with skin, wash immediately with plenty of water. In case of skin irritation, consult a physician.

#### After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Protect uninjured eye.

#### After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

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

Causes skin irritation. Causes serious eye irritation.

Spasms, Gastrointestinal complaints, Nausea, Intestinal colic Respiratory complaints.

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

First Aid, decontamination, treatment of symptoms.

Subsequent observance for pneumonia and lung oedema.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. The product itself does not burn.

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

In case of fire may be liberated: Sulphur dioxide (SO<sub>2</sub>), Phosphorus oxides, Nitrogen oxides (NO<sub>x</sub>), Gases/vapours, toxic.

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**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. In case of fire: Use acid-proof equipment only.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities. Cover drains.

**6.3. Methods and material for containment and cleaning up**

Suitable material for diluting or neutralizing: Water.

Provide adequate ventilation. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with eyes and skin.

**Advice on protection against fire and explosion**

The product itself does not burn.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place away from alkalis.

Suitable floor material: acid-resistant.

**Advice on storage compatibility**

Do not store together with: Alkali (lye). Keep away from food, drink and animal feedingstuffs.

**Further information on storage conditions**

Do not store at temperatures below 5 °C

**7.3. Specific end use(s)**

Observe instructions for use.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
7664-38-2	Orthophosphoric acid	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

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**DNEL/DMEL values**

CAS No	Substance			
DNEL type	Exposure route		Effect	Value
7664-38-2	Phosphoric acid			
Worker DNEL, long-term	inhalation		local	2,92 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation		local	0,73 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation		systemic	1 mg/m <sup>3</sup>

**PNEC values**

CAS No	Substance			
Environmental compartment				Value
5329-14-6	sulfamic acid			
Freshwater				0,048 mg/l
Marine water				0,0048 mg/l
Freshwater sediment				0,173 mg/kg
Marine sediment				0,0173 mg/kg
Micro-organisms in sewage treatment plants (STP)				2 mg/l
Soil				0,00638 mg/kg

**8.2. Exposure controls****Appropriate engineering controls**

See section 7. No additional measures necessary.

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Use protective skin cream before handling the product.  
 Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink or smoke. Avoid contact with skin, eyes and clothes.

**Eye/face protection**

Tightly sealed safety glasses.

**Hand protection**

Tested protective gloves are to be worn:  
 Suitable material: Butyl caoutchouc (butyl rubber) (0,5mm); NBR (Nitrile rubber) (0,35mm);  
 penetration time (maximum wearing period): >480 Min.  
 Recommended protective gloves brand: Camatril Velour, Manufacturer: KCL; Or comparable articles from other companies.

**Skin protection**

Protective apron. acid proof.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation  
 Suitable respiratory protective equipment: Particle filter device (DIN EN 143), P 2

**Environmental exposure controls**

No information available.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: liquid  
 Colour: light red  
 Odour: odourless

**Test method**

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pH-Value (at 20 °C): 0 - 1

**Changes in the physical state**

Melting point: not determined

Initial boiling point and boiling range: 98 °C

Flash point: not applicable

**Explosive properties**

not applicable

Lower explosion limits: not applicable

Upper explosion limits: not applicable

Ignition temperature: not applicable

Vapour pressure: 23 hPa

(at 20 °C)

Vapour pressure: 123 hPa

(at 50 °C)

Density (at 20 °C): 1,082 g/cm<sup>3</sup>

Water solubility: completely miscible

(at 20 °C)

Viscosity / dynamic: not determined

Vapour density: not determined

Evaporation rate: not determined

**9.2. Other information**

Solid content: not determined

Corrosion rate on steel or aluminum surfaces at a test temperature of 55 °C &gt;= 6,25 mm per year

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Exothermic reaction with: Alkali (lye).

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Exothermic reaction with: Alkali (lye).

The product develops hydrogen in an aqueous solution in contact with metals.

**10.4. Conditions to avoid**

Reaction takes place at temperatures above: 205°C

**10.5. Incompatible materials**

Alkali (lye), Light metals.

**10.6. Hazardous decomposition products**Nitrogen oxides (NOx), Sulphur oxides, Sulphur dioxide (SO<sub>2</sub>), Phosphorus oxides, Gases/vapours, corrosive.**Further information**

Corrosive to metals. Slowly corrodes aluminium and zink under hydrogen evolution.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

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**Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
5329-14-6	sulfamic acid				
	oral	LD50 mg/kg	3160	Rat	
7664-38-2	Phosphoric acid				
	oral	LD50 mg/kg	2600	Rat	
	dermal	LD50 mg/kg	2740	Rabbit	

**Irritation and corrosivity**

Causes skin irritation.

Causes serious eye irritation.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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.

**Specific effects in experiment on an animal**

No data available

**SECTION 12: Ecological information****12.1. Toxicity**

Product is acid. The product needs to apply neutralizing agents before draining to wastewater treatment plants.

Harmful to aquatic organisms. After neutralisation, reduction in toxic effects is observed.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
5329-14-6	sulfamic acid					
	Acute fish toxicity	LC50 mg/l	70,3	96 h Pimephales promelas (fathead minnow)		
7664-38-2	Phosphoric acid					
	Acute fish toxicity	LC50	138 mg/l	96 h Gambusia affinis		
	Acute crustacea toxicity	EC50 mg/l	>100	48 h Daphnia magna (Big water flea)		

**12.2. Persistence and degradability**

Product is acid. The product needs to apply neutralizing agents before draining to wastewater treatment plants.

The methods for determining the biological degradability are not applicable to inorganic substances. Inorganic product which is not eliminable from water through biological cleaning processes.

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**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**12.4. Mobility in soil**

If product enters soil, it will be mobile and may contaminate groundwater.

**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. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation.

**Waste disposal number of waste from residues/unused products**

060106 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of acids; other acids; hazardous waste

**Waste disposal number of used product**

060106 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of acids; other acids; hazardous waste

**Waste disposal number of contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Water. Contaminated packages must be completely emptied and can be re-used following proper cleaning.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number:**

UN 1805

**14.2. UN proper shipping name:**

PHOSPHORIC ACID SOLUTION

**14.3. Transport hazard class(es):**

8

**14.4. Packing group:**

III

Hazard label:

8



Classification code:

C1

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

80

Tunnel restriction code:

E

**Inland waterways transport (ADN)****14.1. UN number:**

UN 1805

**14.2. UN proper shipping name:**

PHOSPHORIC ACID SOLUTION

**14.3. Transport hazard class(es):**

8

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**14.4. Packing group:**

Hazard label:

III

8



Classification code:

C1

Limited quantity:

5 L

Excepted quantity:

E1

**Marine transport (IMDG)****14.1. UN number:**

UN 1805

**14.2. UN proper shipping name:**

PHOSPHORIC ACID SOLUTION

**14.3. Transport hazard class(es):**

8

**14.4. Packing group:**

III

Hazard label:

8



Marine pollutant:

-

Special Provisions:

223

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number:**

UN 1805

**14.2. UN proper shipping name:**

PHOSPHORIC ACID SOLUTION

**14.3. Transport hazard class(es):**

8

**14.4. Packing group:**

III

Hazard label:

8



Special Provisions:

A3 A803

Limited quantity Passenger:

1 L

Passenger LQ:

Y841

Excepted quantity:

E1

IATA-packing instructions - Passenger:

852

IATA-max. quantity - Passenger:

5 L

IATA-packing instructions - Cargo:

856

IATA-max. quantity - Cargo:

60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS:

no

**14.6. Special precautions for user**

IF SWALLOWED: Call a POISON CENTER/doctor/.?/ if you feel unwell.

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

not relevant

**SECTION 15: Regulatory information**



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**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3: Phosphoric acid

2010/75/EU (VOC):

not relevant

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D):

1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method

**Relevant H and EUH statements (number and full text)**

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains methenamine. May produce an allergic reaction.

**Further Information**

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.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*