

# Safety data sheet

Pursuant to Regulation (EC) no. 1907/2006, Article 31

Trade name: **DELEO® drain cleaner**  
Product code: 103  
Created on: 9 March 2012  
Replaces data sheet from: 20 June 2011

## 01. Identification of the mixture and of the company

### 01.1 Product identifier

Trade name: DELEO® drain cleaner

### 01.2 Relevant identified uses of the substance:

Drain cleaner exclusively for commercial use.

and uses advised against: Not suitable for contact with food and feed.

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

Deleo® International OSTHOFF

Am Ölbach 40

D-33334 Gütersloh

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Mobil:Tel.: +49 (0) 173 888 7169

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Internet: [www.deleo-die-kraft.com](http://www.deleo-die-kraft.com)

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Person responsible for the safety data sheet: Klaus-Peter Osthoff, [k.p.osthoff@deleo-die-kraft.com](mailto:k.p.osthoff@deleo-die-kraft.com)

### 01.4 Emergency telephone number

Austria: Tel.: +43 (0) 1 406 43 43 (Poisoning information centre, Vienna)

Switzerland: Tel. from outside Switzerland: +41 (1) 251 51 51, Tel. in Switzerland: 145 (Swiss Toxicological Information Centre, Zurich)

Germany: Tel.: +49 (0) 30 1 92 40 (Clinical toxicology and poisoning emergency call centre, Berlin)

Hungary: Tel.: +36 (1) 476 6464 (Toxicological information centre, Budapest)

## 02. Hazards identification

### 02.1 Classification of the mixture (pursuant to Directive 1999/45/EC):

Corrosive

### 02.2 Label elements (pursuant to Directive 1999/45/EC):



CORROSIVE

#### R-phrases:

R35 – Causes severe burns

#### S-phrases:

S2 – Keep out of the reach of children

S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S28 – After contact with skin, wash immediately with plenty of water

S30 – Never add water to this product

S36/S37/S39 – Wear suitable protective clothing, gloves and eye/face protection

S45 – In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

S51 – Use only in well-ventilated areas

### 02.3 Other hazards

Vapours/mists can irritate and burn mucous membranes, particularly the eyes and respiratory tract, they cause a strong urge to cough and inflammation of the airways.

Causes corrosion damage to metals.

PBT: Not applicable

vPvB: Not applicable

## 03. Composition/information on ingredients

### Mixtures

#### Chemical characterisation/description

Acid solution

#### Hazardous ingredients

Substance	% [weight]	CAS no.	EC no.	Index no.
Sulphuric acid	92 - <98	007664-93-9	231-639-5	0165-020-00-8

Classification pursuant to Directive 67/548/EC: Corrosive | R-phrases: R35



Classification pursuant to Regulation (EC) no. 1272/2008: Skin Corr. 1A

Dgr, H314

For the full wording of the R-phrases and H-phrases, see section 16

## 04. First aid measures

### 04.1 Description of first aid measures

**Following inhalation:** Fresh air, maintain adequate airway, warmth, quiet, mouth-to-mouth resuscitation if necessary, seek medical advice.

**Following skin contact:** Remove contaminated, soaked clothing. Immediately flush skin with plenty of water and immediately seek medical advice.

**Following eye contact:** With eyelid open, rinse thoroughly (15 minutes) with water, seek medical advice immediately.

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**Following ingestion:** Thoroughly flush mouth with water, drink plenty of water, avoid vomiting (risk of perforation), seek medical advice immediately.

## 04.2 Most important symptoms and effects, both acute and delayed

Following ingestion: Severe, painful burns in the mouth, oesophagus and stomach. Lung damage (chronic bronchitis) and damage to the incisors are possible in the event of repeated inhalation. Since no corrosion scab is formed following a skin burn, the product penetrates progressively deeper, causing wounds that are very difficult to heal. Blindness is possible following eye burns.

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

Have the patient inhale beclomethasone spray following inhalation. In the event of pain following eye contact, to reduce blepharospasm if possible instil Proparacain POS 0.5% eyedrops.

## 05. Firefighting measures

### 05.1 Extinguishing media

According to surroundings. Unsuitable: Water jet.

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

Substance itself is non-combustible. May give off toxic and corrosive gases/vapours (sulphur trioxide).

### 05.3 Advice for firefighters

If the product is involved in a fire, immediately put on self-contained breathing apparatus and in the event of large-scale pollutant emissions, wear a sealed chemical protective suit and rubber boots. Cool undamaged containers with water, remove from danger zone if possible. Heating results in a pressure increase – risk of bursting. Damp down released mists with a water spray jet. In enclosed spaces, due to reaction, particularly with metal particles, hydrogen accumulation is possible. Use only acid-resistant equipment. Prevent seepage of extinguishing water into surface/ground water.

## 06. Accidental release measures

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

Use personal protective equipment. Ensure good ventilation and wear breathing apparatus if necessary.

Pay attention to the emergency plan and inform the safety specialist.

Unsuitable materials for protective clothing: Non acid-resistant materials.

### 06.2 Environmental precautions

Do not allow product to enter drains, open waters or subsurface. If released into the environment, inform the authorities.

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

After diluting with water, absorb with acid binder and/or set up barriers against spreading, use drain covers if necessary and dispose of in resilient, appropriately labelled containers. Subsequently clean contaminated areas with plenty of water.

### 06.4 Reference to other sections

 Personal protective equipment see section 8, disposal see section 13.

## 07. Handling and storage

**07.1 Precautions for safe handling** Use only in well-ventilated areas. Do not inhale vapours. Use protective equipment (see section 8). Observe limits (see section 8). Do not eat or drink while working. Wash hands after use. Change out of contaminated clothing. Keep an eye wash bottle or eye bath in the work area.

**07.2 Conditions for safe storage, including any incompatibilities** Carefully close containers after opening and store vertically to prevent any leakage. Protect against heat (> 50 °C) and direct sunlight. Use mechanical ventilation if natural ventilation is insufficient. Store in a dry place, not together with materials to be avoided (see section 10).

**07.3 Specific end use(s)** Exclusively commercial use as a drain cleaner.

## 08. Exposure controls/personal protection

### 08.1 Control parameters

Ordinance on Limits (*Grenzwertverordnung*) (see section 15):

Sulphuric acid occupational exposure limit (OEL) (CAS no. 7664-93-9): Daily average value: 0.1 mg/m<sup>3</sup>. Short-term value: 0.2mg/m<sup>3</sup> (instantaneous value, 8x) based on inhalable fraction

EU indicative occupational exposure limit values (see section 15): 8 hours: 0.05 mg/m<sup>3</sup>

### 08.2 Exposure controls

Use only in well-ventilated areas. If natural ventilation is insufficient, use mechanical ventilation or breathing apparatus. Store containers only tightly sealed and vertically.

**Eye/face protection:** Safety glasses with side shields (EN 166)

**Skin protection:**

**Hand protection:** Protective gloves (EN 374) made from nitrile rubber

**Other protective measures:** Acid-resistant protective clothing

**Respiratory protection:** Ensure good ventilation, if vapours or mists occur use a respiratory filter with combination filter E-P2 or E-P3 (colour code yellow/white), alternatively combination filter B-P2 or B-P3 (colour code grey/white). In the event of high concentrations (> 1vol%) or uncertain circumstances, use self-contained breathing apparatus.

**Environmental exposure controls** Do not allow product to enter soil and water (follow disposal rules).

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## 09. Physical and chemical properties

### 09.1 Information on basic physical and chemical properties

Appearance:	Liquid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	0.11 mg/m <sup>3</sup> based on sulphuric acid aerosol
pH:	Highly acidic
Melting point / freezing point:	c. -15 °C (based on sulphuric acid)
Initial boiling point and boiling range:	≥ 300°C (1013 mbar) (based on sulphuric acid)
Flash point:	Not applicable
Evaporation rate:	Not known
Upper/lower flammability or explosive limits:	Not applicable
Vapour pressure:	< 0.001 mbar (20 °C) (based on sulphuric acid)
Saturation concentration:	Not known
Vapour density:	c. 3.4 (based on sulphuric acid)
Relative density:	c. 1.84 g/cm <sup>3</sup> (20 °C)
Solubility(ies):	Miscible with water in any proportion (20 °C)
Partition coefficient: n-octanol/water:	Not known
Auto-ignition temperature:	Not applicable
Decomposition temperature:	≥ 340 °C (based on sulphuric acid)
Viscosity:	c. 24 mPa.s (20°C) (based on sulphuric acid)
Explosive properties:	Not applicable
Oxidising properties:	Not applicable

### 09.2 Other information

Detection threshold: 1.1 mg/m<sup>3</sup> (based on sulphuric acid)

## 10. Stability and reactivity

**10.1 Reactivity** Strong acid with oxidising effect.

**10.2 Chemical stability** Stable under normal storage conditions (room temperature).

**10.3 Possibility of hazardous reactions** Explosive products are created on contact with chlorates and permanganates.

Explosive reactions occur with alkaline and alkaline earth metals, and with ammonia solution. Hydrogen may form in the event of metal corrosion. Destroys organic tissue.

**10.4 Conditions to avoid** Temperatures > 50 °C. May give off toxic and corrosive gases/vapours in the event of fire.

**10.5 Incompatible materials** Alkaline and alkaline earth metals and their solutions, chlorates, permanganates, oxidising agents, metals and metal alloys, phosphor, phosphorous oxides, hydrides, halogens, nitrates, carbides, combustible materials, organic solvents, nitriles, organic nitro compounds, lithium oxide.

**10.6 Hazardous decomposition products** Sulphur oxides in the case of thermal decomposition.

## 11. Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity:

LC<sub>50</sub> rat, inhalation: 510 mg/m<sup>3</sup> (sulphuric acid)

Following ingestion: Severe, painful burns in the mouth, oesophagus and stomach.

Skin irritation: Strong irritant effect in very low concentrations (detection threshold 1.1 mg/m<sup>3</sup>) (sulphuric acid).

Skin corrosion: Severely corrosive effect, destroys tissue.

Respiratory or skin sensitisation: No sensitising effect known.

Repeated dose toxicity: Lung damage (chronic bronchitis) and damage to the incisors are possible in the event of inhalation.

Carcinogenicity: No carcinogenic effect known.

Mutagenicity: No mutagenic effect known.

Reproductive toxicity: No reproductive toxic effect known.

Other: Since no corrosion scab is formed following a skin burn, the product penetrates progressively deeper, causing wounds that are very difficult to heal.

## 12. Ecological information

### 12.1 Toxicity

LC50 Lepomis macrochirus (bluegill): 16-29 mg/l (96 h) (based on sulphuric acid)

EC50 Daphnia magna (large water flea): 29 mg/l (24 h) (based on sulphuric acid)

### 12.2 Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3 Bioaccumulative potential

Not known.

### 12.4 Mobility in soil

Not known.

### 12.5 Results of PBT and vPvB assessment

A PBT/vPvB assessment pursuant to Annex XIII of Regulation (EC) no.1907/2006 is not available.

### 12.6 Other adverse effects

Water hazard class: 1 (slightly hazardous to water)

Do not allow product to enter ground water or bodies of water; or drains in large quantities.

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Forms corrosive mixtures with water even if diluted, harmful effect due to pH shift.  
Risk to drinking water possible if very large quantities seep into the subsurface and bodies of water.

## 13. Disposal considerations

### 13.1 Waste treatment methods

Disposal as hazardous waste in accordance with regulatory provisions. Chemical/physical treatment. Must not be disposed of together with household waste. Do not allow product to enter soil or bodies of water.

Waste code number according to the Austrian Waste Catalogue Ordinance (*Abfallverzeichnisverordnung*): 52103 (acids, acid mixtures with application-specific additives)

EU waste code number: 06 01 01 (sulphuric acid and sulphurous acid)

Packaging: Contaminated packaging should be treated like the product. Non-contaminated packaging and completely emptied, cleaned packaging can be recycled.

## 14. Transport information

### 14.1 UN number 1830

**14.2 UN proper shipping name** ADR/RID/ADN: Sulphuric acid

**14.3 Transport hazard class(es)** ADR/RID/ADN: Class 8, Code C1

**14.4 Packing group** II

**14.5 Environmental hazards** Not applicable

**14.6 Special precautions for user**

Land transport ADR/RID (cross-border / domestic):

ADR/RID: Class 8 PG II Code C1, tunnel restriction code E



ADR hazard number: 80, ADR hazard label: 8

Transport category 2

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No data available.

## 15. Regulatory information

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

The currently applicable version of the listed regulations is referred to.

Ordinance on Medical Assessment in the Workplace (*Verordnung über die Gesundheitsüberwachung am Arbeitsplatz*) (Austrian Federal Law Gazette (*Bundesgesetzblatt*, BGBl) II 27/1997)

2011 Ordinance on Limits (*Grenzwertverordnung*) (BGBl II 429/2011)

2002 Austrian Waste Management Act (*Abfallwirtschaftsgesetz*) (BGBl I 102/2002)

Austrian Waste Catalogue Ordinance (*Abfallverzeichnisverordnung*) (BGBl 570/2003)

Regulation (EC) no. 1272/2008: Classification, labelling

Directive 67/548/EEC / 1996 Austrian Chemicals Act (*Chemikaliengesetz*) (BGBl I 53/1997): Classification, labelling

Regulation (EC) no. 1907/2006 in the version of no. 453/2010: Safety data sheet

Directive 2000/39/EC: 1. List of indicative occupational exposure limit values

Directive 2000/15/EC: 2. List of indicative occupational exposure limit values

Directive 2009/161/EC: 3. List of indicative occupational exposure limit values

### 15.2 Chemical safety assessment

No chemical safety assessment was carried out for this product.

## 16. Other information

The currently applicable version of the statutory provisions is referred to.

Abbreviations: n/a = not applicable

Changes: Re-issued in accordance with Regulation (EC) no. 1907/2006 [in the version of Regulation (EC) no. 453/2010]

Other sources: other safety data sheets, Kühn, Birett: Merkblätter gefährlicher Arbeitsstoffe (8th edition – 265th supplement of 1/2012)

The assessment of the hazardous properties of the mixture was conducted pursuant to Art. 9 (4) of Regulation (EC) no. 1272/2008 in accordance with Art. 6 (5)

Employee training: Handling hazardous substances, emergency plan

Wording of the R-phrases and H-phrases from section 3:

R35 – Causes severe burns

H314 – Causes severe skin burns and eye damage

This safety data sheet conforms to the requirements of Annex I of Regulation (EC) no. 1907/2006 [Regulation (EU) no. 453/2010]. Information provided above is based on our current knowledge and is intended to describe our product in respect of any safety requirements that may exist. However, it does not constitute any warranty or representation of properties in the legal sense. The purchaser/user is responsible for complying with statutory provisions. Unless written approval has been given, the product must not be used for any purpose other than the uses stated in sections 1 and 7.

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