

## safety data sheet

### to product

## Melag MEtherm 56

### 1. Identification of the substance / preparation and company

#### Emergency number:

Tox Info Suisse, Freiestrasse 16, 8032 Zürich; Tox-Info Suisse: 145 (24h-operation); [info@toxinfo.ch](mailto:info@toxinfo.ch);  
**In case of emergency: Tel. 145;** (abroad: +41 44 251 51 51); information: +41 44 251 66 66

#### Company name:



abc dental ag

Gaswerkstrasse 6, 8952 Schlieren  
Tel. 044 755 51 00, Fax 044 755 51 01



Condor Dental Research CO Sàrl

Ch. des Cibleries 2, CP 300, 1896 Vouvry  
Tel. 024 482 61 61, Fax 024 482 61 69



Curaden AG Dentaldepot

Riedstrasse 12, 8953 Dietikon  
Tel. 041 319 45 00, Fax 041 319 45 90



dema dent AG

Furtbachstrasse 16, 8107 Buchs  
Tel. 044 838 65 65, Fax 044 838 65 66



Flexdental Services SA

Route de la Corniche 1, 1066 Epalinges  
Tel. 0848 336 825, Fax 021 907 67 02



Jordi Röntgentechnik AG

Dammstrasse 70, 4142 Münchenstein  
Tel. 061 417 93 93, Fax 061 417 93 94



Kaladent AG

Schachenstrasse 2, 9016 St. Gallen  
Tel. 071 282 80 80, Fax 071 282 80 81



Lometral AG

Binzenholzstrasse 20, 5704 Egliswil  
Tel. 062 775 05 05, Fax 062 775 33 07



Novadent AG

Sägereistrasse 17, 8152 Glattbrugg  
Tel. 044 880 20 20, Fax 044 811 04 40



Smart Dentist AG

Verenastrasse 4b, 8832 Wollerau  
Tel. 044 726 20 20, Fax 044 726 20 25

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## **MEtherm 56**      *No Change Service!*

Version                      Revision Date:                      Date of last issue: 10.03.2020  
02.01                          22.03.2021                          Date of first issue: 08.03.2017

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

#### **1.1 Product identifier**

Trade name                      : MEtherm 56  
Unique Formula Identifier      : 9P50-K0CS-X00H-G39C  
(UFI)

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

Use of the Sub-                      : Decalcification agent  
stance/Mixture

Recommended restrictions      : Restricted to professional users.  
on use

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

Supplier                              : MELAG Medizintechnik GmbH & Co. KG  
Geneststraße 6-10

10829 Berlin  
Germany  
Telephone: +4930-7579110  
Telefax: +4930-757901199  
MEtherm-OEM@melag.de  
www.melag.com

Producer                              : Schülke & Mayr GmbH  
Robert-Koch-Str. 2

22851 Norderstedt  
Germany  
Telephone: +49 (0)40/ 52100-0  
Telefax: +49 (0)40/ 52100318  
mail@schuelke.com  
www.schuelke.com

E-mail address of person        : Safety Coordinator:  
responsible for the                      +49(0)30 /335 055 33  
SDS/Contact person

#### **1.4 Emergency telephone number**

Emergency telephone num-        : UK Poisons Emergency number: 0870 600 6266  
ber

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### **SECTION 2: Hazards identification**

#### **2.1 Classification of the substance or mixture**

##### **Classification (REGULATION (EC) No 1272/2008)**

Corrosive to metals, Category 1                      H290: May be corrosive to metals.

Skin corrosion, Sub-category 1B                      H314: Causes severe skin burns and eye damage.

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Serious eye damage, Category 1

H318: Causes serious eye damage.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

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

Precautionary Statements : **Prevention:**  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

#### **Response:**

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

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

#### **Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

#### **Hazardous components which must be listed on the label:**

phosphoric acid

### 2.3 Other hazards

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.

No hazards to be specially mentioned.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Solution of the following substances with harmless additives.

#### Components

Chemical name	CAS-No. EC-No. Index-No.	Classification	Concentration (% w/w)

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	Registration number		
phosphoric acid	7664-38-2 231-633-2 015-011-00-6 01-2119485924-24-XXXX	Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318	>= 50 - < 70

For explanation of abbreviations see section 16.

## **SECTION 4: First aid measures**

### **4.1 Description of first aid measures**

- General advice : Take off all contaminated clothing immediately.
- If inhaled : If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes.  
Consult a physician.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Obtain medical attention.
- If swallowed : Rinse mouth with water.  
Give small amounts of water to drink.  
Consult a physician if necessary.

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

- Symptoms : corrosive effects

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

- Treatment : For specialist advice physicians should contact the Poisons Information Service.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

- Suitable extinguishing media : Dry powder  
Foam  
Water spray jet  
Carbon dioxide (CO<sub>2</sub>)
- Unsuitable extinguishing media : Do NOT use water jet.

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

- Specific hazards during fire- : Gives off hydrogen by reaction with metals.



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### 7.3 Specific end use(s)

Specific use(s) : none

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
phosphoric acid	7664-38-2	TWA	1 mg/m <sup>3</sup>	2000/39/EC
		Further information: Indicative		
		STEL	2 mg/m <sup>3</sup>	2000/39/EC
		Further information: Indicative		
		TWA	1 mg/m <sup>3</sup>	GB EH40
		STEL	2 mg/m <sup>3</sup>	GB EH40

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
phosphoric acid	Workers	Inhalation	Long-term local effects	2 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term local effects	1 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	10.7 mg/m <sup>3</sup>

### 8.2 Exposure controls

#### Engineering measures

Ensure that eyewash stations and safety showers are close to the workstation location.

#### Personal protective equipment

Eye protection : Face-shield

Hand protection

Directive : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Remarks : Splash protection: disposable nitrile rubber gloves e.g. Dermatril (layer thickness: 0.11 mm) made by KCL or gloves from other manufacturers offering the same protection. Prolonged contact: Nitrile rubber gloves e.g. Camatril (>480 Min., layer thickness: 0,40 mm) or butyl rubber gloves e.g. Butoject (>480 Min., layer thickness: 0,70 mm) made by KCL or gloves from other manufacturers offering the same protection.

Skin and body protection : Work uniform or laboratory coat.  
Chemical resistant apron







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Method : OECD Test Guideline 404  
Result : Corrosive after 3 minutes to 1 hour of exposure

### **Serious eye damage/eye irritation**

#### **Product:**

Remarks : Causes serious eye damage.

#### **Components:**

##### **phosphoric acid:**

Species : Rabbit  
Result : Irreversible effects on the eye

### **Respiratory or skin sensitisation**

#### **Components:**

##### **phosphoric acid:**

Result : Does not cause skin sensitisation.  
Remarks : largely based on human evidence

### **Germ cell mutagenicity**

#### **Components:**

##### **phosphoric acid:**

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative  
Germ cell mutagenicity- Assessment : In vitro tests did not show mutagenic effects

### **Carcinogenicity**

#### **Components:**

##### **phosphoric acid:**

Carcinogenicity - Assessment : No data available

### **Reproductive toxicity**

#### **Components:**

##### **phosphoric acid:**

Effects on fertility : Species: Rat, male and female  
Application Route: Oral  
General Toxicity F1: NOAEL:  $\geq$  500 mg/kg bw/day

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Effects on foetal development : Species: Rat  
Application Route: Oral  
General Toxicity Maternal: NOAEL:  $\geq$  410 mg/kg bw/day  
Developmental Toxicity: NOAEL F1:  $\geq$  410 mg/kg bw/day  
Method: OECD Test Guideline 414  
Result: Animal testing did not show any effects on fertility.

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.  
Animal testing did not show any effects on foetal development.

### **STOT - single exposure**

#### **Components:**

##### **phosphoric acid:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

### **STOT - repeated exposure**

#### **Components:**

##### **phosphoric acid:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### **Repeated dose toxicity**

#### **Components:**

##### **phosphoric acid:**

Species : Rat  
NOAEL : 250 mg/kg  
Application Route : Oral  
Exposure time : 90-day  
Method : OECD Test Guideline 422

### **Aspiration toxicity**

No data available

### **Further information**

#### **Product:**

Remarks : No data is available on the product itself.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Components:**

##### **phosphoric acid:**

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Toxicity to fish	: LC50 (Lepomis macrochirus (Bluegill sunfish)): 3 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

### **Ecotoxicology Assessment**

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

### **12.2 Persistence and degradability**

#### **Components:**

#### **phosphoric acid:**

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

### **12.3 Bioaccumulative potential**

#### **Components:**

#### **phosphoric acid:**

Bioaccumulation : Remarks: Not relevant

### **12.4 Mobility in soil**

#### **Components:**

#### **phosphoric acid:**

Mobility : Medium: Water  
Remarks: soluble

### **12.5 Results of PBT and vPvB assessment**

#### **Product:**

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**

#### **Product:**

Additional ecological information : No data is available on the product itself.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

- Product : Dispose of the product according to the defined EWC (European Waste Code) No.
- Contaminated packaging : Take empty packaging to the recycling plant.
- Waste key for the unused product : European waste catalog (EWC) 070601\*
- Waste key for the unused product(Group) : Waste material of HZVA from fats, lubricants, soaps, detergents, disinfectants and personal protection products.

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### SECTION 14: Transport information

#### 14.1 UN number

- ADR : UN 1805
- IMDG : UN 1805
- IATA : UN 1805

#### 14.2 UN proper shipping name

- ADR : PHOSPHORIC ACID SOLUTION
- IMDG : PHOSPHORIC ACID SOLUTION
- IATA : Phosphoric acid, solution

#### 14.3 Transport hazard class(es)

- ADR : 8
- IMDG : 8
- IATA : 8

#### 14.4 Packing group

- ADR**
- Packing group : III
- Classification Code : C1
- Hazard Identification Number : 80
- Labels : 8
- Tunnel restriction code : (E)
- IMDG**
- Packing group : III
- Labels : 8
- EmS Code : F-A, S-B
- IATA (Cargo)**
- Packing instruction (cargo aircraft) : 856
- Packing instruction (LQ) : Y841
- Packing group : III
- Labels : Corrosive

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### **IATA (Passenger)**

Packing instruction (passenger aircraft) : 852  
Packing instruction (LQ) : Y841  
Packing group : III  
Labels : Corrosive

### **14.5 Environmental hazards**

#### **ADR**

Environmentally hazardous : no

#### **IMDG**

Marine pollutant : no

### **14.6 Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

For personal protection see section 8.

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

Not applicable for product as supplied.

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## **SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 3

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial

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emissions (integrated pollution prevention and control)  
Not applicable

### **Other regulations:**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

### **15.2 Chemical safety assessment**

Exempt

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## **SECTION 16: Other information**

### **Full text of H-Statements**

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

### **Full text of other abbreviations**

Eye Dam. : Serious eye damage  
Met. Corr. : Corrosive to metals  
Skin Corr. : Skin corrosion  
2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values  
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits  
2000/39/EC / TWA : Limit Value - eight hours  
2000/39/EC / STEL : Short term exposure limit  
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)  
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not

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Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### **Further information**

#### **Classification of the mixture:**

Met. Corr. 1	H290
Skin Corr. 1B	H314
Eye Dam. 1	H318

#### **Classification procedure:**

Based on product data or assessment
Calculation method
Calculation method

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.