



SAFETY DATA SHEET

KaVo. Dental Excellence.

Section 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name or designation of the mixture	KaVo Kalklöser
Registration number	-
Product registration number	Not available.
Product use	professional use
Product code	0,489,3018
Date of first issue	01-December-2011
Version number	1.0
Revision date	01-December-2011

Supersedes date

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

Identified uses	Not available.
Uses advised against	None known.

Details of the supplier of the safety data sheet

Company name	Kaltenbach & Voigt GmbH
Address	Bismarckring 39 D-88400 Biberach Germany
Telephone number	+49 (0) 7351 56-0
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Contact person	Peter Fischer
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Emergency telephone number	+49 (0) 7351 56 4000

Section 2: Hazards identification

Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification Xi;R41

The full text for all R-phrases is displayed in section 16.

Hazard summary

Physical hazards	Not classified for physical hazards.
Health hazards	Risk of serious damage to eyes.
Environmental hazards	Not classified for hazards to the environment.
Specific hazards	Risk of serious damage to eyes.
Main symptoms	Irritation of eyes and mucous membranes. Permanent eye damage including blindness could result.

Label elements

Label according to Directive 67/548/EEC or 1999/45/EC as amended



Irritant

R-phrases	R41 Risk of serious damage to eyes.
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Section 3: Composition/information on ingredients

Mixture

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
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Citric acid	<= 99	77-92-9 201-069-1	-	-	
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Classification: Xi;R41

#: This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Composition comments The full text for all R-phrases is displayed in Section 16.

Section 4: First aid measures

Description of first aid measures

Inhalation If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.

Skin contact Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact Immediately flush eye(s) with plenty of water. Get medical attention.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed Not available.

Indication of any immediate medical attention and special treatment needed Not available.

Section 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Water fog. Carbon dioxide (CO₂). Alcohol resistant foam. Powder.

Unsuitable extinguishing media Do not use water jet.

Advice for firefighters

Special protective equipment for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Special firefighting procedures Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers. Water runoff can cause environmental damage.

Hazardous combustion products Carbon oxides.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.

For emergency responders Not available.

Environmental precautions Avoid release to the environment.

Methods and material for containment and cleaning up If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water.

Reference to other sections For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

Precautions for safe handling Avoid dust formation. Do not breathe dust from this material. In case of insufficient ventilation, wear suitable respiratory equipment. Provide appropriate exhaust ventilation at places where dust is formed. Guard against dust accumulation of this material. Avoid contact with skin and eyes. Avoid prolonged exposure. Take measures to prevent the build up of electrostatic charge. Practice good housekeeping.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Avoid dust formation. Guard against dust accumulation of this material. Store in a cool, dry place. Store in accordance with local/regional/national/international regulation.

Section 8: Exposure controls/personal protection**Control parameters**

Occupational exposure limits	No exposure limits noted for the ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.
DNEL	Not available.
PNEC	Not available.

Exposure controls

Appropriate engineering controls	Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn.
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Individual protection measures, such as personal protective equipment

General information	Not available.
Eye/face protection	Use tight fitting goggles if dust is generated.
Skin protection	
- Hand protection	Wear protective gloves.
- Other	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Respiratory protection	Wear respirator if there is dust formation. Dust filter P2 (for fine dust).
Thermal hazards	Not available.
Hygiene measures	Do not breathe dust. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practices.
Environmental exposure controls	Not available.

Section 9: Physical and chemical properties**Information on basic physical and chemical properties**

Physical state	Solid.
Form	Powder. Crystalline.
Colour	White., Colourless.
Odour	Odourless.
Odour threshold	Not available.
pH	1.8 (5% g/l) @ 25°C
Melting point/freezing point	153 °C (307.4 °F)
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	Not applicable.
Auto-ignition temperature	Not applicable.
Flammability (solid, gas)	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Oxidising properties	Not applicable.
Explosive properties	Not applicable.
Explosive limit	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Relative density	1.665 g/cm3

Solubility (water)	61.8 % @25°C
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	> 170 °C (> 338 °F)
Bulk density	550 - 650 kg/m ³ powder 850 - 950 kg/m ³ granular
Viscosity	Not available.
Percent volatile	Not available.
Other data	
Solubility (other)	38.3 % @25°C ETHANOL
Other information	No relevant additional information available.

Section 10: Stability and reactivity

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Avoid spread of dust.
Incompatible materials	Strong bases. Strong oxidising substances.
Hazardous decomposition products	No dangerous reaction known under conditions of normal use.

Section 11: Toxicological information

Information on likely routes of exposure

Ingestion	Not available.
Inhalation	Not available.
Skin contact	May cause irritation.
Eye contact	Risk of serious damage to eyes.
Symptoms	Irritation of eyes and mucous membranes. Permanent eye damage including blindness could result.

Information on toxicological effects

Components	Test results
Citric acid (77-92-9)	Acute Oral LD50 Mouse: 5040 mg/kg Acute Oral LD50 Rat: 6730 mg/kg
Skin corrosion/irritation	Not available.
Serious eye damage/eye irritation	Risk of serious damage to eyes.
Respiratory sensitisation	Not available.
Skin sensitisation	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Not available.
Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Mixture versus substance information	Not available.
Other information	Not available.

Section 12: Ecological information

Ecotoxicity	Not expected to be harmful to aquatic organisms.
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Toxicity

Product	Test results
KaVo Kalklöser (Mixture)	Fish: 440 - 706 mg/l 96 hours

Persistence and degradability	The product is easily biodegradable.
Bioaccumulative potential	None.
Mobility	Not available.
Environmental fate - Partition coefficient	Not available.
Mobility in soil	Not available.
Results of PBT and vPvB assessment	Not available.
Other adverse effects	Not available.

Section 13: Disposal considerations

Waste treatment methods

Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14: Transport information

ADR

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Section 15: Regulatory information

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

EU regulations

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V

Not listed.

Commission Decision 2000/479/EC on the implementation of a European pollutant emission register (EPER)

Not listed.

Regulation (EC) No. 1907/2006, Article 59(1). Candidate List

Not listed.

Other regulations The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

National regulations Not available.

Chemical safety assessment No Chemical Safety Assessment has been carried out.

Section 16: Other information

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture Not available.

Wording of the R-phrases in sections 2 and 3	R41 Risk of serious damage to eyes.
Revision information	Not available.
Training information	Not available.
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.
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