

MATERIAL SAFETY DATA SHEET

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

(This safety data sheet is for information only and does not comply with the official language requirements of article 31 (5) of REACH.)



Revision: 28.03.2025
First version: 09.01.2024

Version number: 2.0
Replaces version of: 09.01.2024
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Commercial product name:	Poliresin
Product description:	Polishing material
Chemical name:	Kieselguhr, soda ash flux-calcined
Registration number (REACH):	01-2119488518-22-xxxx
EC number:	272-489-0
CAS number:	68855-54-9

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

Relevant identified uses:	Filler
	Filter aid / Filtration accelerator
	Carrier
	Laboratory chemical
	Functional additive

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:	ERNST HINRICHS Dental GmbH
Street / mailbox:	Borsigstr. 1
Country code. / postal code / city:	D - 38644 Goslar
Phone:	0 53 21 / 5 06 24
Fax:	0 53 21 / 5 08 81
E-mail / Website:	info@hinrichs-dental.de / www.hinrichs-dental.de
Further information obtainable from:	ERNST HINRICHS Dental GmbH

1.4 Emergency telephone number

ERNST HINRICHS Dental GmbH:	+49 (0) 53 21 / 5 06 24 (Mon-Fri. 8 a.m. – 4 p.m.)
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP):	This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.
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2.2 Label elements:	According to Regulation (EC) No. 1272/2008 (CLP)
Labelling according to Regulation (EC) No 1272/2008 (CLP):	Not required.

2.3 Other hazards:	
Results of PBT and vPvB assessment:	According to the results of its assessment, this substance is not a PBT or a vPvB.

Endocrine disrupting properties:	Not listed.
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SECTION 3: Composition/information on ingredients

3.1 Substances:

Name of substance:	kieselguhr, soda ash flux-calcined
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Identifiers

REACH Reg. No:	01-2119488518-22-xxxx
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SECTION 4: First aid measures

4.1	Description of first aid measures	
	General notes:	Self-protection of the first aider. In all cases of doubt, or when symptoms persist, seek medical advice.
	Following inhalation:	Provide fresh air.
	Following skin contact:	Rinse skin with water/shower.
	Following eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Following ingestion:	Rinse mouth. Do not induce vomiting. Get medical advice/attention if you feel unwell.
	Notes for the doctor:	None.
4.2	Most important symptoms and effects, both acute and delayed:	Cough, pain, choking, and breathing difficulties. The main effect in humans of the inhalation of respirable crystalline silica is silicosis.
4.3	Indication of any immediate medical attention and special treatment needed:	None.

SECTION 5: Firefighting measures

5.1	Extinguishing media: Suitable extinguishing media:	Co-ordinate firefighting measures to the fire surroundings.
5.2	Special hazards arising from the substance or mixture:	Hazardous decomposition products: Section 10.
5.3	Advice for fire-fighters:	Non-combustible. In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.
	Special protective equipment for firefighters:	Self-contained breathing apparatus (EN 133)

SECTION 6: Accidental release measures

6.1	Personal precautions, protective equipment and emergency procedures For non-emergency personnel	Ventilate affected area. Avoid breathing dust. Control of dust. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.
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	For emergency responders:	Wear breathing apparatus if exposed to vapours/dust/spray/gases.
6.2	Environmental precautions:	Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.
6.3	Methods and material for containment and cleaning up	
	Advice on how to contain a spill:	Covering of drains. Take up mechanically.
	Advice on how to clean up a spill:	Take up mechanically. Collect spillage.
	Other information relating to spills and releases:	Place in appropriate containers for disposal. Ventilate affected area.
6.4	Reference to other sections:	Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1	Precautions for safe handling:	Avoid contact with eyes. Provision of sufficient ventilation. Control of dust. Do not breathe dust.
	Measures to prevent fire as well as aerosol and dust generation:	Use local and general ventilation. Removal of dust deposits.
	Measures to protect the environment:	Avoid release to the environment. Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.
	Advice on general occupational hygiene:	Do not eat, drink and smoke in work areas. Wash hands after use. Preventive skin protection (barrier creams/ointments) is recommended. Remove contaminated clothing and protective equipment before entering eating areas.
7.2	Conditions for safe storage, including any incompatibilities	
	Flammability hazards:	None.
	Incompatible substances or mixtures	Incompatible materials: see section 10.
	Protect against external exposure, such as:	heat
	Consideration of other advice:	Keep away from food, drink and animal feedingstuffs.
	Ventilation requirements:	Provision of sufficient ventilation.

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Specific designs for storage rooms or vessels: Keep container tightly closed and in a well-ventilated place.

Packaging compatibilities: Keep only in original container.

7.3 Specific end Use(s): No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limits

Country	Name of agent	Identifier	TWA [mg/m ³]	STEL [mg/m ³]	Notation	Source
DE	dust	MAK	4	-	i	DFG
DE	dust	AGW	10	20	Y, i	TRGS 900
DE	dust	AGW	1,25	2,5	Y, r	TRGS 900
DE	dust	MAK	0,3	2,4	r, ex-ufdust	DFG
DE	diatomaceous earth, burned	AGW	0,3	-	r, DE-AGW- 1, Y	TRGS 900
EU	crystalline silica	IOELV	0,1	-	dust, r	2017/2398/EU

Notation

DE-AGW-1 Depending on their origin, diatomaceous earths may contain quartz. The firing or calcination of diatomaceous earths leads to increasing proportions of cristobalite; activated diatomite can contain up to 60% cristobalite by mass. When assessing exposure to (burnt) diatomaceous earth, both the amorphous proportion (limit value for diatomaceous earth or burnt diatomaceous earth) and the sum of the proportions of cristobalite and quartz (carcinogenic according to TRGS 906) must be determined and evaluated. Quartz may also be present in diatomaceous earth smoke due to the production process and must be determined and assessed separately from the diatomaceous earth smoke.

dust as dust

ex-uf-dust except ultrafine particles

i inhalable fraction

r respirable fraction

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Y a risk of developmental toxicity does not need to be expected if the occupational exposure limit value and the biological limit value (BGW) are adhered to

Human health values

Relevant DNELs and other threshold levels

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	0,05 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects

Environmental values

Relevant PNECs and other threshold levels

Endpoint	Threshold level	Environmental compartment
PNEC	100 mg/l	sewage treatment plant (STP)

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8.2 Exposure controls

Appropriate engineering controls: Use local and general ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection: Wear eye/face protection. (EN 166)

Hand protection

Protective gloves

Material:

no information available

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Body protection:

Protective clothing for use against solid particulates.
(EN 13832, EN 340, EN 13034, EN 14605).

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.
Particulate filter device (EN 143).
P3 (filters at least 99,95 % of airborne particles, colour code: White).

Environmental exposure controls:

Use appropriate container to avoid environmental contamination.
Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:

solid

Colour:

white - beige

Odour:

odourless

Melting point/freezing point:

>450 °C

Boiling point or initial boiling point and boiling range:

not determined

Flammability:

non-combustible

Lower and upper explosion limit:

not applicable

(solid)

Flash point:

not applicable

Auto-ignition temperature:

not applicable

(solid)

Decomposition temperature:

not relevant

pH (value):

7 – 9 (20 °C)

Viscosity:

not relevant

(solid)

Solubility(ies)

Water solubility:

3,7 mg/l at 20 °C

insoluble

(OECD Guideline 105)

Partition coefficient n-octanol/water (log value):

Partition coefficient n-octanol/water (log value)

Vapour pressure:

not determined

Density and/or relative density

Density:

not determined

Relative vapour density:

information on this property is not available

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Relative density: 2,36 (water = 1)
(OECD Guideline 109)
Particle characteristics: no data available

9.2 Other information:
Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics: There is no additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity: This material is not reactive under normal ambient conditions.

10.2 Chemical stability: The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
See below "Conditions to avoid".

10.3 Possibility of hazardous reactions: Dangerous/dangerous reactions with: Hydrogen fluoride (HF).

10.4 Conditions to avoid: Control of dust.

10.5 Incompatible materials: hydrogen fluoride (HF)

10.6 Hazardous decomposition products: Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008: If not otherwise specified the classification is based on: Animal studies; Evidence from any other toxicity tests; Expert judgement (weight of evidence determination).

Classification according to GHS (1272/2008/EC, CLP): This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

Acute toxicity: Shall not be classified as acutely toxic (oral).

Exposure route	Endpoint	Value	Species	Method	Source
oral	LD0	>2.000 mg/kg	rat	OECD Guideline 401	ECHA

Skin corrosion/irritation: Shall not be classified as corrosive/irritant to skin.
(ECHA, OECD Guideline 404)

Serious eye damage/eye irritation: Shall not be classified as seriously damaging to the eye or eye irritant. (ECHA, OECD Guideline 405)

Respiratory or skin sensitisation
Skin sensitisation: Shall not be classified as a skin sensitizer.
(ECHA, OECD Guideline 429)

Respiratory sensitisation: Classification could not be established because:

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Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity:

Shall not be classified as germ cell mutagenic.
(ECHA, OECD Guideline 471, OECD Guideline 473, OECD Guideline 476)

Carcinogenicity:

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Reproductive toxicity:

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - single exposure:

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Specific target organ toxicity - repeated exposure:

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Chronic toxicity						
Exposure route	Endpoint	Value	Exposure time	Species	Method	Source
oral	NOAEL	3.738 mg/kg bw /day	90 d	rat	OECD Guideline 408	ECHA

Aspiration hazard:

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

Endocrine disrupting properties:

Not listed.

SECTION 12: Ecological information

12.1 Toxicity:

Aquatic toxicity (acute):

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

Endpoint	Exposure time	Value	Species	Method	Source
LC50	96 h	>100 mg/l	rainbow trout (Oncorhynchus mykiss)	OECD Guideline 203	ECHA
EC50	48 h	>100 mg/l	daphnia magna	OECD Guideline 202	ECHA
ErC50	72 h	>100 mg/l	algae (Desmodesmus subspicatus)	OECD Guideline 201	ECHA

Aquatic toxicity (chronic):

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

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Endpoint	Exposure time	Value	Species	Method	Source
EC50	3 h	>1.000 mg/l	activated sludge of a predominantly domestic sewage	OECD Guideline 209	ECHA
NOEC	3 h	1.000 mg/l	activated sludge of a predominantly domestic sewage	OECD Guideline 209	ECHA

12.2 Persistence and degradability Biodegradation:

The study does not need to be conducted because the substance is inorganic.

Persistence:

The study does not need to be conducted because the substance is inorganic.

12.3 Bioaccumulative potential:

Not applicable.

n-octanol/water (log KOW):

not relevant
(inorganic)

12.4 Mobility in soil:

Not applicable.

12.5 Results of PBT and vPvB assessment:

According to the results of its assessment, this substance is not a PBT or a vPvB.

12.6 Endocrine disrupting properties:

Not listed.

12.7 Other adverse effects:

Data are not available.

Remarks:

Wassergefährdungsklasse, WGK (water hazard class): Nwg.

SECTION 13: Disposal considerations

13.1 Waste treatment methods:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information:

Do not empty into drains.

Waste treatment of containers/packageings:

Completely emptied packages can be recycled.
Handle contaminated packages in the same way as the substance itself.

Remarks:

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number or ID number:

Not subject to transport regulations.

14.2 UN proper shipping name:

-

14.3 Transport hazard class:

-

14.4 Packaging group

-

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- 14.5 Environmental hazards -
- 14.6 Special precautions for users -
- 14.7 Maritime transport in bulk according to IMO instruments -

SECTION 15: Regulatory information

15.1 Safety, Health and Environmental Regulations/Legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII: Not listed.

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list: Not listed.

Seveso Directive: Not assigned.

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) Not listed.

Regulation on the marketing and use of explosives precursors: Not listed.

Regulation on drug precursors: Not listed.

Regulation on substances that deplete the ozone layer (ODS): Not listed.

Regulation concerning the export and import of hazardous chemicals (PIC): Not listed.

Regulation on persistent organic pollutants (POP): Not listed.

National regulations (Germany)

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

Wassergefährdungsklasse, WGK nwg
(water hazard class):

Index number: 849

Technical instructions on air quality control (Germany)

Number	Group of substances	Class	Conc.	Mass flow	Mass concentration	Notation
5.2.1	total dust, including micro-dust	-	≥ 25 wt%	0,2 kg/h	20 mg/m ³	2)

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Notation

2) even with a mass flow smaller than or equal to 0.20 kg/h, a mass concentration of 0.15 g/m³ in waste gas may not be exceeded

Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK): 13
(non-combustible solids)

**Chemikalien-Verbotsverordnung
(Chemicals Prohibition Ordinance) -
ChemVerbotsV:** not listed

Other information: Observe occupational restrictions for mothers acc. to §§ 11 and 12 MuSchG!

15.2 Chemical safety assessment: For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms

2017/2398/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW	Workplace exposure limit
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DFG	Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
IOELV	Indicative occupational exposure limit value

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LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LGK	Lagerklasse (storage class according to TRGS 510, Germany)
NLP	No-Longer Polymer
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
SVHC	Substance of Very High Concern
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900)
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

Disclaimer:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.