

AGC Pre Powder

Version number: SDS 1.0

Date of compilation: 2019-06-07

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

1.1 Product identifier

Identification of the substance	Pentakaliumbis(peroxymonosulfat)bis(sulfat)
Trade name	AGC Pre Powder
Other names or synonyms	<i>AGC Pre Powder</i>
Registration number (REACH)	01-2119485567-22-xxxx
1.1.2.2 EC number	274-778-7
CAS number	70693-62-8

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

Relevant identified uses	Medium for dental technology.
Uses advised against	Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin. For professional users only.

1.3 Details of the supplier of the safety data sheet

C.HAFNER GmbH + Co. KG
Maybachstr. 4
71299 Wimsheim
Germany

Telephone: +49-704490333-0
Telefax: +49-70449033-40
e-Mail: Website: www.c-hafner.de

Additional information

Manufacturer					
Country	Name	Postal code/city	Telephone	Telefax	Website
Germany	Wieland Edelmetalle GmbH	75179 Pforzheim	07231-1393-0	07231-1393-100	www.wieland-edelmetalle.de

Supplier of the product					
Country	Name	Postal code/city	Telephone	Telefax	Website
Germany	C.HAFNER GmbH + Co. KG	71299 Wimsheim	+49-7044-90333-0	+49-7044-9033-40	www.c-hafner.de

e-mail (competent person) michael.huber@c-hafner.de (Dr. Michael Huber)

National contact Dr .Michael Huber
Telephone: +49-7231-424021-406
e-mail: Michael.huber@c-hafner.de

1.4 Emergency telephone number

Emergency information service	This number is only for medical emergencies
Opening hours	24h-Notrufnummer

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1.5 Additional relevant and available information

1.6 Remarks there is no additional information

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Category	Hazard class and category	Hazard statement
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302
3.1I	acute toxicity (inhal.)	4	Acute Tox. 4	H332
3.2	skin corrosion/irritation	1B	Skin Corr. 1B	H314
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
4.1A	hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	hazardous to the aquatic environment - chronic hazard	3	Aquatic Chronic 3	H412

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word danger

- Pictograms

GHS05, GHS07, GHS09 

- Hazard statements

H302+H332 Harmful if swallowed or if inhaled.
 H314 Causes severe skin burns and eye damage.
 H410 Very toxic to aquatic life with long lasting effects.

- Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P391 Collect spillage.
 P501 Dispose of contents/container to industrial combustion plant.

2.3 Other hazards

Inhalation of dust may cause respiratory irritation.

Results of PBT and vPvB assessment

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

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SECTION 3: Composition/information on ingredients**3.1 Substances**

Name of substance	pentapotassium bis((hydroperoxysulfonyl)oxidanide) hydrogen sulfate sulfate
Identifiers	
REACH Reg. No	01-2119485567-22-xxxx
CAS No	70693-62-8
EC No	274-778-7
Molecular formula	H3K5O18S4
Molar mass	614.7 g/mol

SECTION 4: First aid measures**4.1 Description of first aid measures**

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Rinse skin with water/shower.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media

Water, Foam, Alcohol resistant foam, ABC-powder

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Sulphur oxides (SOx)

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5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Wear self-contained breathing apparatus

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

For non-emergency personnel

Remove persons to safety.

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. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains, Take up mechanically

Advices on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. 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**

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment.

- Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Removal of dust deposits.

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Consideration of other advice

- Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. Use local and general ventilation.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Source
GB	dust		i	WEL		10					EH40/2005
GB	dust		r	WEL		4					EH40/2005

Notation

- Ceiling-C ceiling value is a limit value above which exposure should not occur
- 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)

Human health values

Relevant DNELs and other threshold levels				
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	0.28 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	50 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	0.28 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
DNEL	50 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	80 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

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Environmental values

Relevant PNECs and other threshold levels				
End-point	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	0.022 mg/l	aquatic organisms	freshwater	short-term (single instance)
PNEC	0.002 mg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	108 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	0.078 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	0.008 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
PNEC	1 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

Preventive skin protection (barrier creams/ointments) is recommended.

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374 and regulation (EU) Nr. 2016/425. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

- Type of material

NR: natural rubber, latex, CR: chloroprene (chlorobutadiene) rubber, NBR: acrylonitrile-butadiene rubber, FKM: fluoroelastomer

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Filtering half mask (EN 149). Adequate particulate filter (EN 143). P3 (filters at least 99,95 % of airborne particles, colour code: White). Anti-dust respirator (FFP3).

Environmental exposure controls

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

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	solid
Colour	white
Odour	characteristic

Other safety parameters

pH (value)	2 (30g/l, 25 °C)
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	non-combustible
Explosion limits of dust clouds	not determined
Vapour pressure	<0 Pa at 25 °C
Density	not determined
Vapour density	this information is not available
Relative density	information on this property is not available

Solubility(ies)

- Water solubility	≤370 g/l at 20 °C
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Partition coefficient

- n-octanol/water (log KOW)	<0.3 (pH value: ~1, 20 °C) (ECHA)
- Soil organic carbon/water (log KOC)	<1.256 (ECHA)

Auto-ignition temperature	not determined
Decomposition temperature	250 °C at 1,013 hPa (ECHA)
Viscosity	not relevant (solid matter)
Explosive properties	none
Oxidising properties	none

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9.2 Other information

Of no significance.

Surface tension	72.9 mN/m (23 °C) (ECHA)
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SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Harmful if swallowed. Harmful if inhaled.

GHS of the United Nations, annex 4: May be harmful in contact with skin.

- Acute toxicity estimate (ATE)

Oral	500 mg/kg
Inhalation: dust/mist	3.7 mg/l/4h

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

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Specific target organ toxicity (STOT)

Shall not be classified as a specific target organ toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)			
Endpoint	Value	Species	Exposure time
LC50	53 mg/l	fish	96 h
EC50	3.5 mg/l	aquatic invertebrates	48 h
EbC50	0.97 mg/l	algae	72 h
ErC50	>1 mg/l	algae	72 h

Aquatic toxicity (chronic)			
Endpoint	Value	Species	Exposure time
LC50	367 µg/l	aquatic invertebrates	28 d
EC50	179 mg/l	microorganisms	18 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

n-octanol/water (log KOW)	<0.3 (pH value: ~1, 20 °C) (ECHA)
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12.4 Mobility in soil

Data are not available.

The Organic Carbon normalised adsorption coefficient	<1.256 (ECHA)
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12.5 Results of PBT and vPvB assessment

Data are not available.

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12.6 Other adverse effects

Endocrine disrupting potential

Not listed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Recycling/reclamation of other inorganic materials.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

Properties of waste which render it hazardous

- HP 4 irritant - skin irritation and eye damage
- HP 6 acute toxicity
- HP 8 corrosive
- HP 14 ecotoxic

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

- | | |
|--|--|
| 14.1 UN number | 1759 |
| 14.2 UN proper shipping name | CORROSIVE SOLID, N.O.S. |
| Technical name | Pentakaliumbis(peroxymonosulfat)bis(sulfat) |
| 14.3 Transport hazard class(es) | |
| Class | 8 (corrosive substances) (environmentally hazardous) |
| 14.4 Packing group | II (substance presenting medium danger) |
| 14.5 Environmental hazards | hazardous to the aquatic environment |
| 14.6 Special precautions for user | |
| | Provisions for dangerous goods (ADR) should be complied within the premises. |
| 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code | |
| | The cargo is not intended to be carried in bulk. |

Information for each of the UN Model Regulations

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

UN number 1759
 Proper shipping name CORROSIVE SOLID, N.O.S.
 Class 8
 Classification code C10
 Packing group II
 Danger label(s) 8, fish and tree



Environmental hazards yes (hazardous to the aquatic environment)
 Special provisions (SP) 274
 Excepted quantities (EQ) E2
 Limited quantities (LQ) 1 kg
 Transport category (TC) 2
 Tunnel restriction code (TRC) E
 Hazard identification No 80
 Emergency Action Code 2X

International Maritime Dangerous Goods Code (IMDG)

UN number 1759
 Proper shipping name CORROSIVE SOLID, N.O.S.
 Class 8
 Marine pollutant yes (hazardous to the aquatic environment)
 Packing group II
 Danger label(s) 8, fish and tree



Special provisions (SP) 274
 Excepted quantities (EQ) E2
 Limited quantities (LQ) 1 kg
 EmS F-A, S-B
 Stowage category A

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number 1759
 Proper shipping name Corrosive solid, n.o.s.
 Class 8
 Environmental hazards yes (hazardous to the aquatic environment)
 Packing group II
 Danger label(s) 8

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Special provisions (SP)	A3
Exempted quantities (EQ)	E2
Limited quantities (LQ)	5 kg

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

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

not listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

not listed

National inventories

Country	Inventory	Status
EU	REACH Reg.	substance is listed

Legend

REACH Reg. REACH registered substances

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
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 européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level

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Abbr.	Descriptions of used abbreviations
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)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
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)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
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
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

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 2015/830/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).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

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Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product. This Safety Data Sheet was created on voluntary basis. It is not necessary referring to Article 31 Regulation (EC) 1907/2006 (REACH).