

Safety data sheet
according to 1907/2006/EC, Article 31

TETENAL

Printing date 03.03.2020

version no: 3

Revision: 03.03.2020

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

1.1 Product identifier

Trade name: **Paranol S**
S/W-Negativentwickler

Article number: 102106

Index number:

None of the ingredients is listed.

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

No further relevant information available.

Application of the substance / the mixture Black and white developer for photographic use

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

TETENAL 1847 GmbH
Schützenwall 31-35
D-22844 Norderstedt /Germany
Tel.: +49 (0) 40 521 45-0; Fax: +49 (0)40-52145-296
www.tetenal.com; E-mail: info@tetenal.com

Further information obtainable from: Department product safety. E-Mail: sida@tetenal.com

1.4 Emergency telephone number:

Poison Information Centre Germany: +49 (0) 30 - 30686 700 (English and German 24 hours)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Met. Corr. 1 H290 May be corrosive to metals.
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
Muta. 2 H341 Suspected of causing genetic defects.
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS05 GHS08 GHS09

Signal word Danger

Hazard-determining components of labelling:

potassium hydroxide
4-aminophenol

Hazard statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H341 Suspected of causing genetic defects.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

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- P280 Wear protective gloves / eye 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.
 P310 Immediately call a POISON CENTER/doctor.
 P501 Dispose of contents/container in accordance with local regulations.

2.3 Other hazards**Results of PBT and vPvB assessment**

- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

- . **Description:** Mixture of substances listed below and with nonhazardous additions.

Dangerous components:

CAS: 123-30-8	4-aminophenol	1-5%
EINECS: 204-616-2	☠ Muta. 2, H341; STOT RE 2, H373; ☠ Aquatic Acute 1, H400;	
Index number: 612-128-00-X	Aquatic Chronic 1, H410; ☠ Acute Tox. 4, H302; Acute Tox. 4, H332	
Reg.nr.: 01-2119535388-31		
CAS: 1310-58-3	potassium hydroxide	1-5%
EINECS: 215-181-3	☠ Met. Corr.1, H290; Skin Corr. 1A, H314; ☠ Acute Tox. 4, H302	
Index number: 019-002-00-8		
Reg.nr.: 01-2119487136-33		
CAS: 7758-02-3	potassium bromide	1-5%
EINECS: 231-830-3	☠ Eye Irrit. 2, H319	
Reg.nr.: 01-2119962195-33		

- . **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- . **General information:** Immediately remove any clothing/shoes soiled by the product.
- . **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- . **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- . **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- . **After swallowing:**
Do not induce vomiting; call for medical help immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media**Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**5.2 Special hazards arising from the substance or mixture**

Nitrogen oxides (NO_x)
Carbon monoxide (CO)

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Sulphur dioxide (SO₂)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

5.3 Advice for firefighters**Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Pick up mechanically.

Ensure adequate ventilation.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.**Information about fire - and explosion protection:** Protect from heat.**7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:**

Store away from foodstuffs.

Do not store together with acids.

Store away from oxidising agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Recommended storage temperature: 5-30°C

Protect from exposure to the light.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****1310-58-3 potassium hydroxide (1-5%)**WEL Short-term value: 2 mg/m³

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. DNELs**123-30-8 4-aminophenol**

Dermal	Long-term - local - effects, worker	1 mg/kg bw/Day (-)
Inhalative	Long-term exposure-local effects	2.1 mg/m ³ (-)

1310-58-3 potassium hydroxide

Inhalative	Long-term - local - effects	1 mg/m ³ (Worker (Arbeiter))
	Long-term - systemic effects	1 mg/m ³ (general population)

7758-02-3 potassium bromide

Oral	Long-term - systemic effects	0.475 mg/kg bw/day (-)
Dermal	Akute /short-term exposure - local effects	mg/kg bw/day (no hazard identified)
	Long-term - systemic - effects	95 mg/kg bw/day (-)
	Long-term - local - effects, worker	mg/kg bw/Day (no hazard identified)
	Long-term - systemic effects	95 mg/kg bw/day (-)
Inhalative	Akute /short-term exposure - local effects	mg/m ³ (no hazard identified)
	Akute-lokale Effekte	mg/m ³ (no hazard identified)
	Long-term - systemic effects	1.66 mg/m ³ (-)
	Long-term - local effects	mg/m ³ (no hazard identified)
	Long-term - systemic-effects	4.75 mg/m ³ (-)

. PNECs**7758-02-3 potassium bromide**

Aquatic compartment - freshwater	0.52 mg/l (-)
Aquatic compartment - marine water	41 mg/l (-)
Aquatic compartment -sediment in marine water	3.2 mg/kg sed dw (-)
Sewage treatment plant (Abwasserreinigungsanlagen)	100 mg/l (-)

. Additional information: The lists valid during the making were used as basis.

. 8.2 Exposure controls**. Personal protective equipment:****. General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Do not inhale gases / fumes / aerosols.
- Avoid contact with the eyes and skin.

. Respiratory protection: required at the appearance from fumes/vapours/aerosol. Filter ABEK

. Protection of hands:

Protective gloves

Impervious gloves

Alkaline resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

. Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

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. Penetration time of glove material

Glove material	breakthrough-time	layer thickness
Butyl rubber:	≥480 min	≥0,4mm
Nitrile rubber:	≥480 min	≥0,38mm
Neoprene:	≥240 min	≥0,65mm

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

. Eye protection:



Tightly sealed goggles

. Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Colour:	Light brown

. Odour: Phenol-like

. pH-value at 25 °C: ~14

. Change in condition

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: > 100 °C

. Flash point: Not applicable.

. Auto-ignition temperature: Product is not selfigniting.

. Explosive properties: Product does not present an explosion hazard.

. Vapour pressure: Not determined.

. Density at 20 °C: ~1.4 g/cm³

. Solubility in / Miscibility with water:

Fully miscible.

. Solvent content:

Organic solvents:	0.1 %
Water:	50-90 %

Solids content: 0.0 %

. 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

. 10.1 Reactivity No further relevant information available.

. 10.2 Chemical stability

. Thermal decomposition / conditions to be avoided: Stable at environment temperature.

. 10.3 Possibility of hazardous reactions Reacts with acids, alkalis and oxidising agents.

. 10.4 Conditions to avoid No further relevant information available.

. 10.5 Incompatible materials: Under certain fire conditions, traces of other toxic gases cannot be excluded.

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. **10.6 Hazardous decomposition products:** Irritant gases/vapours

SECTION 11: Toxicological information

. **11.1 Information on toxicological effects**

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

. **LD/LC50 values relevant for classification:**

123-30-8 4-aminophenol

Oral LD50 671 mg/kg (rat)

Dermal LD50 >8,000 mg/kg (rabbit)

Inhalative LC50 >3,420 mg/l (rat)

1310-58-3 potassium hydroxide

Oral LD50 333 mg/kg (rat)

7758-02-3 potassium bromide

Oral LD50 3,070 mg/kg (rat)

. **Primary irritant effect:**

. **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

. **Serious eye damage/irritation**

Causes serious eye damage.

. **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

. **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

. **Germ cell mutagenicity**

Suspected of causing genetic defects.

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

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

. **STOT-single exposure** Based on available data, the classification criteria are not met.

. **STOT-repeated exposure** Based on available data, the classification criteria are not met.

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

SECTION 12: Ecological information

. **12.1 Toxicity**

. **Aquatic toxicity:**

123-30-8 4-aminophenol

EC50 48 mg/l (daphnia magna (Water flea))

LC50 48 mg/l (fish: Oncorhynchus mykiss)

1310-58-3 potassium hydroxide

LC50 96 mg/l (fish: Gambusia affinis)

24 mg/l (fish: Poecilia reticulata)

. **12.2 Persistence and degradability** No further relevant information available.

. **12.3 Bioaccumulative potential** No further relevant information available.

. **12.4 Mobility in soil** No further relevant information available.

. **Ecotoxicological effects:**

. **Remark:** Toxic for fish

. **Additional ecological information:**

. **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

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Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Danger to drinking water if even extremely small quantities leak into the ground.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

09 01 01 water-based developer and activator solutions

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA

UN1814

14.2 UN proper shipping name

ADR

1814 POTASSIUM HYDROXIDE SOLUTION

IMDG

POTASSIUM HYDROXIDE SOLUTION, MARINE
POLLUTANT

IATA

POTASSIUM HYDROXIDE SOLUTION

14.3 Transport hazard class(es)

ADR

Class

8 (C5) Corrosive substances.

Label

8

IMDG, IATA

Class

8 Corrosive substances.

Label

8

14.4 Packing group

ADR, IMDG, IATA

II

14.5 Environmental hazards:

Marine pollutant:

Yes

Symbol (fish and tree)

Special marking (ADR):

Symbol (fish and tree)

14.6 Special precautions for user

Warning: Corrosive substances.

Hazard identification number (Kemler code):

80

EMS Number:

F-A,S-B

Segregation groups

Alkalis

Stowage Category

A

Segregation Code

SG35 Stow "separated from" SGG1-acids

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

Not applicable.

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. Transport/Additional information:

. ADR

- | | |
|-----------------------------------|---|
| . Limited quantities (LQ) | 1L |
| . Excepted quantities (EQ) | Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml |
| . Transport category | 2 |
| . Tunnel restriction code | E |

. IMDG

- | | |
|-----------------------------------|---|
| . Limited quantities (LQ) | 1L |
| . Excepted quantities (EQ) | Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml |

- | | |
|---------------------------------|--|
| . UN "Model Regulation": | UN1814, POTASSIUM HYDROXIDE SOLUTION, ENVIRONMENTALLY HAZARDOUS, 8, II |
|---------------------------------|--|

SECTION 15: Regulatory information

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

- . Directive 2012/18/EU**
- . Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t**
- . Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t**
- . REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3**
- . 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H341 Suspected of causing genetic defects.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

- . Contact:** E: sida@tetenal.com

. Abbreviations and acronyms:

- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ICAO: International Civil Aviation Organisation
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- DNEL: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Met. Corr. 1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity - oral – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Muta. 2: Germ cell mutagenicity – Category 2
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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