

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.06.2015

version no: 1

Revision: 05.06.2015

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

1.1 Product identifier

Trade name: **Paranol S**

Article number: 102106

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 Europe GmbH

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D-22844 Norderstedt / Germany

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Further information obtainable from: Department environment and safety. E-Mail: info@tetenal.com

1.4 Emergency telephone number: Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS08

Muta. 2 H341 Suspected of causing genetic defects.



GHS05

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS09

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

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



C; Corrosive

R34: Causes burns.



Xn; Harmful

R68: Possible risk of irreversible effects.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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. Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

. Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

. 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

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.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

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 EINECS: 204-616-2 Index number: 612-128-00-X Reg.nr.: 01-2119535388-31	4-aminophenol Xn R20/22-68; N R50/53 Muta. Cat. 3 Muta. 2, H341; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Acute Tox. 4, H332	1-5%
CAS: 1310-58-3 EINECS: 215-181-3 Index number: 019-002-00-8 Reg.nr.: 01-2119487136-33	potassium hydroxide C R35; Xn R22 Met. Corr.1, H290; Skin Corr. 1A, H314; Acute Tox. 4, H302	2-5%

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. **Additional information:** For the wording of the listed risk 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)
 - 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.

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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.
 - Store under lock and key and out of the reach of children.
 - 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/m ³

- . **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.

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Butyl rubber, BR
Nitrile rubber, NBR
Neoprene gloves

. 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
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. Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: > 100 °C

. Flash point:	Not applicable.
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. Self-igniting:	Product is not selfigniting.
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. Danger of explosion:	Product does not present an explosion hazard.
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. Vapour pressure at 20 °C:	23 hPa
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. Density at 20 °C:	1.386 g/cm ³
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. Solubility in / Miscibility with water:	Fully miscible.
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. Solvent content:

Organic solvents:	0.0 %
Water:	>55 %

. 9.2 Other information	No further relevant information available.
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SECTION 10: Stability and reactivity

. 10.1 Reactivity**. 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.

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- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:**
 - Nitrogen oxides (NO_x)
 - Carbon monoxide (CO)
 - Sulphur dioxide (SO₂)
 - Under certain fire conditions, traces of other toxic gases cannot be excluded.
- . **10.6 Hazardous decomposition products:** Irritant gases/vapours

SECTION 11: Toxicological information

- . **11.1 Information on toxicological effects**
- . **Acute toxicity:**

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

123-30-8 4-aminophenol

Oral	LD50	375 mg/kg (rat)
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1310-58-3 potassium hydroxide

Oral	LD50	365 mg/kg (rat)
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- . **Primary irritant effect:**
 - . **on the skin:** Caustic effect on skin and mucous membranes.
 - . **on the eye:** Strong caustic effect.
- . **Sensitisation:** No sensitising effects known.
- . **Additional toxicological information:**
 - The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
 - Corrosive
 - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.
- . **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
 - Muta. 2

SECTION 12: Ecological information

- . **12.1 Toxicity**

- . **Aquatic toxicity:**

123-30-8 4-aminophenol

EC50	48h:	0.24 mg/l (daphnia magna (Water flea))
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LC50	48h:	1.2 mg/l (fish: Oncorhynchus mykiss)
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1310-58-3 potassium hydroxide

LC50	96h:	80 mg/l (fish: Gambusia affinis)
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- . **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

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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.

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
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. 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**



. **Class**

8 Corrosive substances.

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. Label	8
. 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.
. Danger code (Kemler):	80
. EMS Number:	F-A,S-B
. Segregation groups	Alkalis
. 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
. 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

No further relevant information available.

. 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.

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. Relevant phrases

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- 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.
- R20/22 Harmful by inhalation and if swallowed.
- R22 Harmful if swallowed.
- R35 Causes severe burns.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R68 Possible risk of irreversible effects.

. Contact: e-mail: 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Met. Corr. 1: Corrosive to metals, Hazard Category 1
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
- Muta. 2: Germ cell mutagenicity, Hazard Category 2
- STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
- Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

. * Data compared to the previous version altered.

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