

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.09.2014

version no: 2

Revision: 01.09.2014

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

1.1 Product identifier

Trade name: **DOKUMOL**

Article number: 100272

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 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
Phone: ++49 (0) 40 521 45-0; Fax: +49 (0) 40-52145-296
www.tetenal.com; E-Mail: info@tetenal.com

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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.

Carc. 2 H351 Suspected of causing cancer.



GHS05

Eye Dam. 1 H318 Causes serious eye damage.



GHS09

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

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



Xn; Harmful

R40-68: Limited evidence of a carcinogenic effect. Possible risk of irreversible effects.

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Xi; Sensitising

R43: May cause sensitisation by skin contact.



N; Dangerous for the environment

R50: Very toxic to aquatic organisms.

. **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**

Reduced labeling possible if <125 ml

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

. **Hazard pictograms**



GHS05

GHS07

GHS08

GHS09

. **Signal word** Danger

. **Hazard-determining components of labelling:**

hydroquinone (1,4-dihydroxybenzene)

. **Hazard statements**

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

. **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.

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

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 characterization: Mixtures**

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

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. Dangerous components:

CAS: 123-31-9 EINECS: 204-617-8 Index number: 604-005-00-4 Reg.nr.: 01-2119524016-51	hydroquinone (1,4-dihydroxybenzene) ☒ Xn R22-40-68; ☒ Xi R41; ☒ Xi R43; ☒ N R50 Carc. Cat. 3, Muta. Cat. 3 ☒ Muta. 2, H341; ☒ Carc. 2, H351; ☒ Eye Dam. 1, H318; ☒ Aquatic Acute 1, H400; ☒ Acute Tox. 4, H302; ☒ Skin Sens. 1, H317	2.5-5%
CAS: 584-08-7 EINECS: 209-529-3 Reg.nr.: 01-2119532646-36	potassium carbonate ☒ Xi R36/38 ☒ Skin Irrit. 2, H315; ☒ Eye Irrit. 2, H319	1-5%
CAS: 1330-43-4 EINECS: 215-540-4 Index number: 005-011-00-4	disodium tetraborate, anhydrous ☒ T Repr. Cat. 2 R60-61 ☒ Repr. 1B, H360FD	1-3%
CAS: 67-43-6 EINECS: 200-652-8 Reg.nr.: 01-2119497281-34	Diethylenetriamine pentaacetic acid (DTPA)/ N-carboxymethyliminobis(ethylenenitrilo)tetra(acetic acid) ☒ Xn R20-63; ☒ Xi R36 ☒ Repr. 2, H361; ☒ Acute Tox. 4, H332; ☒ Eye Irrit. 2, H319	1-5%
CAS: 92-43-3 EINECS: 202-155-1 Index number: 606-022-00-2	1-phenyl-3-pyrazolidone (Phenidone A) ☒ Xn R22; ☒ N R51/53 ☒ Aquatic Chronic 2, H411; ☒ Acute Tox. 4, H302	0.1- <1%

. SVHC

1330-43-4 disodium tetraborate, anhydrous

. 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****. After inhalation:**

Supply fresh air and to be sure call for a doctor.

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:** If symptoms persist consult doctor.**. 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** No further relevant information available.**. 5.3 Advice for firefighters****. Protective equipment:** No special measures required.**SECTION 6: Accidental release measures****. 6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation

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. 6.2 Environmental precautions:

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).
Dispose contaminated material as waste according to item 13.

. 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 When diluting always pour product into water and not vice versa.

. Information about fire - and explosion protection: No special measures required.

. 7.2 Conditions for safe storage, including any incompatibilities**. Storage:**

. Requirements to be met by storerooms and receptacles: No special requirements.

. Information about storage in one common storage facility:

Store away from foodstuffs.
Do not store together with oxidizing and acidic materials.

. Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.
Store under lock and key and out of the reach of children.
Recommended storage temperature: 5-25 °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:**

123-31-9 hydroquinone (1,4-dihydroxybenzene) (1-5%)	
WEL	Long-term value: 0.5 mg/m ³
1330-43-4 disodium tetraborate, anhydrous (1-5%)	
WEL	Long-term value: 1 mg/m ³
1310-73-2 sodium hydroxide (caustic soda) (0.5-2%)	
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.
Avoid contact with the eyes and skin.

. Respiratory protection: Not required.

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. Protection of hands:

Protective 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

. Penetration time of glove material

Glove material	breakthroug-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:	Colourless
Odour:	Odourless

. pH-value at 20 °C: >11

. Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

. Flash point: Not applicable.

. Self-igniting: Product is not selfigniting.

. Danger of explosion: Product does not present an explosion hazard.

. Vapour pressure at 20 °C: 23 hPa

. Density at 20 °C: 1.292 g/cm³

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- | | |
|--|--|
| . Solubility in / Miscibility with water: | Fully miscible. |
| . Solvent content: | |
| Organic solvents: | 0.0 % |
| Water: | >67 % |
| . 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- . **10.1 Reactivity**
- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- . **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** No further relevant information available.
- . **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

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

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

123-31-9 hydroquinone (1,4-dihydroxybenzene)

Oral	LD50	320 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)

- . **Primary irritant effect:**
- . **on the skin:** No irritant effect.
- . **on the eye:** Strong irritant with the danger of severe eye injury.
- . **Sensitization:** Sensitization possible through skin contact.
- . **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:
Irritant
- . **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Muta. 2, Carc. 2

SECTION 12: Ecological information

- . **12.1 Toxicity**

- . **Aquatic toxicity:**

123-31-9 hydroquinone (1,4-dihydroxybenzene)

EC50	48h: 0.29 mg/l	(daphnia magna (Großer Wasserfloh))
LC50	96h: 0.044 mg/L	(Pimephales promelas)

- . **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.
- . **Additional ecological information:**
- . **General notes:**

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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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
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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**

UN3082

. 14.2 UN proper shipping name

. **IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (hydroquinone), MARINE
POLLUTANT

. **IATA**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (hydroquinone)

. 14.3 Transport hazard class(es)

. **ADR**



. **Class**

9 (M6) Miscellaneous dangerous substances and articles.

. **Label**

9

. **IMDG, IATA**



. **Class**

9 Miscellaneous dangerous substances and articles.

. **Label**

9

. 14.4 Packing group

. **ADR, IMDG, IATA**

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. 14.5 Environmental hazards:	Product contains environmentally hazardous substances: hydroquinone
. Marine pollutant:	Yes
. Special marking (ADR):	Symbol (fish and tree)
. Special marking (IATA):	Symbol (fish and tree)
. 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
. Danger code (Kemler):	90
. EMS Number:	F-A,S-F
. 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)	5L
. Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
. Transport category	3
. Tunnel restriction code	E
. IMDG	
. Limited quantities (LQ)	5L
. Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
. UN "Model Regulation":	-

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.

. Relevant phrases

- H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H360FD May damage fertility. May damage the unborn child.
H361 Suspected of damaging fertility or the unborn child.
H400 Very toxic to aquatic life.

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- H411 Toxic to aquatic life with long lasting effects.
- R20 Harmful by inhalation.
- R22 Harmful if swallowed.
- R36 Irritating to eyes.
- R36/38 Irritating to eyes and skin.
- R40 Limited evidence of a carcinogenic effect.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R50 Very toxic to aquatic organisms.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R60 May impair fertility.
- R61 May cause harm to the unborn child.
- R63 Possible risk of harm to the unborn child.
- 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 Organization

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 Harmonized 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

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Muta. 2: Germ cell mutagenicity, Hazard Category 2

Carc. 2: Carcinogenicity, Hazard Category 2

Repr. 1B: Reproductive toxicity, Hazard Category 1B

Repr. 2: Reproductive toxicity, Hazard Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· *** Data compared to the previous version altered.**