

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

TETENAL

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

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

1.1 Product identifier

Trade name: **Eukoprint VR**

Article number: 106887

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 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

Eye Irrit. 2 H319 Causes serious eye irritation.

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

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 2 H351 Suspected of causing cancer.

Aquatic Acute 1 H400 Very toxic to aquatic life.

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



GHS07

GHS08

GHS09

Signal word Warning

Hazard-determining components of labelling:

hydroquinone

4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP)

Hazard statements

H319 Causes serious eye irritation.

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

P280 Wear protective gloves / eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

(Contd. on page 2)

EN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

Trade name: Eukoprint VR

(Contd. of page 1)

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: 584-08-7 EINECS: 209-529-3 Reg.nr.: 01-2119532646-36	potassium carbonate ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	5-10%
CAS: 123-31-9 EINECS: 204-617-8 Index number: 604-005-00-4 Reg.nr.: 01-2119524016-51	hydroquinone ⚠ Muta. 2, H341; Carc. 2, H351; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=10); ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	1-5%
CAS: 140-01-2 EINECS: 205-391-3 Index number: 607-736-00-7 Reg.nr.: 01-2119474445-33	Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5) ⚠ STOT RE 2, H373; ⚠ Acute Tox. 4, H332	1-5%
CAS: 13047-13-7 EINECS: 235-920-3	4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP) ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	<1%

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

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: 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

Carbon monoxide (CO)

Sulphur dioxide (SO₂)

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

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

Trade name: Eukoprint VR

(Contd. of page 2)

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:

- 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.
- Pick up mechanically.

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:** No special measures required.

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.
- Store away from oxidising agents.
- Do not store together with acids.

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:
123-31-9 hydroquinone (1-5%)
WEL (Great Britain) Long-term value: 0.5 mg/m³PEL (USA) Long-term value: 2 mg/m³REL (USA) Ceiling limit: 2* mg/m³
*15-minTLV (USA) Long-term value: 1 mg/m³
DSEN

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

Trade name: Eukoprint VR

(Contd. of page 3)

DNELs

123-31-9 hydroquinone

Dermal	Long-term - systemic - effects	128 mg/kg bw/day (wkd)
	Long-term - systemic effects	64 mg/kg bw/day (wkd)
Inhalative	Long-term exposure-local effects	7 mg/m ³ (wkd)
	Long-term - local - effects	1 mg/m ³ (wkd)
	Long-term - systemic effects	1.74 mg/m ³ (wkd)
	Long-term - local effects	0.5 mg/m ³ (wkd)

PNECs

123-31-9 hydroquinone

Aquatic compartment - freshwater	0.000114 mg/l (Water)
Aquatic compartment - marine water	0.000114 mg/l (Water)
Aquatic compartment -water,intermittent releases	0.00134 mg/l (Water)
Aquatic compartment -sediment in freshwater	0.00098 mg/kg sed dw (Water)
Aquatic compartment -sediment in marine water	0.000097 mg/kg sed dw (Water)
Terrestrial compartment -soil	0.000129 mg/kg dw (Soil)
Sewage treatment plant (Abwasserreinigungsanlagen)	0.71 mg/l (Sewage Treatment Plant)

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 close or long term contact with the skin.
- Avoid contact with the eyes and skin.

Respiratory protection:

- Not required.
- Ensure adequate ventilation

Protection of hands:



Protective gloves

Impervious 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	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.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

Trade name: Eukoprint VR

(Contd. of page 4)

. 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 yellow
Odour:	Recognisable

. pH-value at 20 °C: ~10.5**. Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

. 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:** ~1.2 g/cm³**. Relative density** Not determined.**. Solubility in / Miscibility with water:** Fully miscible.**. Solvent content:****Organic solvents:** 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.

Reacts with acids releasing sulphur dioxide.

. 10.4 Conditions to avoid No further relevant information available.**. 10.5 Incompatible materials:** Protect from frost.**. 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.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

Trade name: Eukoprint VR

(Contd. of page 5)

LD/LC50 values relevant for classification:
584-08-7 potassium carbonate

Oral LD50 >2000 mg/kg (rat)

123-31-9 hydroquinone

Oral LD50 302 mg/kg (rat)

Dermal LD50 >2000 mg/kg (rabbit)

140-01-2 Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5)

Oral LD50 >2000 mg/kg (rat)

13047-13-7 4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP)

Oral LD50 566 mg/kg (rat)

Primary irritant effect:
• Skin corrosion/irritation Based on available data, the classification criteria are not met.

• Serious eye damage/irritation

Causes serious eye irritation.

• Respiratory or skin sensitisation

May cause an allergic skin reaction.

• CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
• Germ cell mutagenicity

Suspected of causing genetic defects.

• Carcinogenicity

Suspected of causing cancer.

• 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:
123-31-9 hydroquinone

EC50 48h: 0.29 mg/l (daphnia magna (Water flea))

LC50 96h: 0.044 mg/l (fish: Pimephales promelas)

140-01-2 Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5)

EC50 48h: >500 mg/l (daphnia magna (Water flea))

48h: >500 mg/l (Invertebrates)

LC50 96h: 1115 mg/l (fish)

96h: >1000 mg/l (Lepomis macrochirus (Sonnenbarsch))

13047-13-7 4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP)

LC50 1-10 mg/l (fish)

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:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

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

Danger to drinking water if even small quantities leak into the ground.

12.5 Results of PBT and vPvB assessment
PBT: Not applicable.

vPvB: Not applicable.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

Trade name: Eukoprint VR

(Contd. of page 6)

. **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**

UN3082

. **14.2 UN proper shipping name**

. **ADR**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hydroquinone)

. **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**

III

. **14.5 Environmental hazards:**

Product contains environmentally hazardous substances: hydroquinone

. **Marine pollutant:**

Yes

Symbol (fish and tree)

. **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.

. **Hazard identification number (Kemler code):**

90

. **EMS Number:**

F-A,S-F

. **Segregation groups**

Alkalis

. **Stowage Category**

A

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

Not applicable.

(Contd. on page 8)

EN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

Trade name: Eukoprint VR

(Contd. of page 7)

. Transport/Additional information:**. ADR****. 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**. Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

. Remarks:

separating-group:

18

. UN "Model Regulation":UN 3082 ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S. (HYDROQUINONE), 9,
III**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** 100 t**. Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 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

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.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H411 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

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.10.2020

version no: 5

Revision: 29.09.2020

Trade name: Eukoprint VR

(Contd. of page 8)

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
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity - oral – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Muta. 2: Germ cell mutagenicity – Category 2
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
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 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

EN