

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 04.12.2013

version no: 1

Revision: 15.08.2013

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

- . **1.1 Product identifier**
- . **Trade name:** ULTRAFIN T - PLUS
- . **Article number:** 102112
- . **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- . **Application of the substance / the preparation** Developer for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL Europe GmbH
Schützenwall 31-35
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

- TETENAL Ltd.,
2 Meridian West, Meridian Business Park, Leicester LE19 1WX
Phone: 0116 - 289 3644; E-Mail: uk@tetenal.com; www.tetenaluk.com
- . **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**

Muta. 2	H341	Suspected of causing genetic defects.
Carc. 2	H351	Suspected of causing cancer.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye Dam. 1	H318	Causes serious eye damage.
Aquatic Acute 1	H400	Very toxic to aquatic life.
Skin Irrit. 2	H315	Causes skin irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.

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

Xn; Harmful		R40-48/22-68: Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Possible risk of irreversible effects.
Xi; Irritant		
R41:	Risk of serious damage to eyes.	
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.

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. 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

GHS07

GHS08

GHS09

. Signal word Danger**. Hazard-determining components of labelling:**

diethanolamine

hydroquinone (1,4-dihydroxybenzene)

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

. Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

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.

. 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.

P264 Wash thoroughly after handling.

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.

P332+P313 If skin irritation occurs: Get medical advice/attention.

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.**. Dangerous components:**

CAS: 111-42-2 EINECS: 203-868-0 Index number: 603-071-00-1 Reg.nr.: 01-2119488930-28	diethanolamine ☒ Xn R22-48/22; ☒ Xi R38-41 ☒ STOT RE 2, H373; ☒ Eye Dam. 1, H318; ☒ Acute Tox. 4, H302; Skin Irrit. 2, H315; Aquatic Chronic 4, H413	10-<25%
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CAS: 7631-90-5 EINECS: 231-548-0 Index number: 016-064-00-8	sodium hydrogensulphite . . . % ☒ Xn R22 R31 ⚠ Acute Tox. 4, H302	1-5%
CAS: 123-31-9 EINECS: 204-617-8 Index number: 604-005-00-4 Reg.nr.: 01-2119524016-51-xxxx	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	3-5%
CAS: 13047-13-7 EINECS: 235-920-3	4-(hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one (HMP) ☒ Xn R22; ☒ Xi R43; ☒ N R51/53 ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	0.1-<1%

. **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.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

. 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: 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

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. 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).
Dispose contaminated material as waste according to item 13.
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.
Prevent formation of aerosols.

. 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.
Store away from oxidizing agents.

. Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
Protect from exposure to the light.
Store under lock and key and out of the reach of children.
Recommended storage temperature: 5-25 °C

. 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:
111-42-2 diethanolamine (10-<25%)

REL (USA)	Long-term value: 15 mg/m ³ , 3 ppm
TLV (USA)	Long-term value: 1* mg/m ³ , 0.2* ppm Skin; *inhalable fraction and vapor

7631-90-5 sodium hydrogensulphite . . . % (3-5%)

WEL (Great Britain)	Long-term value: 5 mg/m ³
REL (USA)	Long-term value: 5 mg/m ³
TLV (USA)	Long-term value: 5 mg/m ³

123-31-9 hydroquinone (1,4-dihydroxybenzene) (3-5%)

WEL (Great Britain)	Long-term value: 0.5 mg/m ³
PEL (USA)	Long-term value: 2 mg/m ³

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REL (USA)	Short-term value: C 2* mg/m ³ *15-min
TLV (USA)	Long-term value: 1 mg/m ³ (SEN) NIC-DSEN

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

. 8.2 Exposure controls

. Personal protective equipment:

. General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

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

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
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Butyl rubber:	≥ 480 min	≥0,4mm
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nitrile:	≥480min	≥0,38mm
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Neopren:	≥240min	≥0,65mm
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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

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SECTION 9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.

. pH-value at 20 °C: 8.8

. Change in condition

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

. Flash point: Not applicable.

. Flammability (solid, gaseous): Not applicable.

. Ignition temperature: 370 °C

. Decomposition temperature: Not determined.

. Self-igniting: Product is not selfigniting.

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

. Explosion limits:

Lower:	2.1 Vol %
Upper:	10.6 Vol %

. Vapour pressure at 20 °C: 23 hPa

. Density at 20 °C: 1.227 g/cm³

. Relative density: Not determined.

. Vapour density: Not determined.

. Evaporation rate: Not determined.

. Solubility in / Miscibility with water:

Fully miscible.

. Partition coefficient (n-octanol/water): Not determined.

. Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

. Solvent content:

Organic solvents:	12.0 %
Water:	>30 %
VOC (EC)	12.04 %

. 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: Stable at environment temperature.

. 10.3 Possibility of hazardous reactions

Reacts with acids, alkalis and oxidizing agents.

Reacts with acids releasing sulphur dioxide.

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- . **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.
- . **10.6 Hazardous decomposition products:**
Irritant gases/vapours
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

. 11.1 Information on toxicological effects

. Acute toxicity:

. LD/LC50 values relevant for classification:

111-42-2 diethanolamine

Oral	LD50	1600 mg/kg (rat)
Dermal	LD50	12200 mg/kg (rabbit)

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

Oral	LD50	320 mg/kg (rat)
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. Primary irritant effect:

- . **on the skin:** Irritant to skin and mucous membranes.
- . **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

. Acute effects (acute toxicity, irritation and corrosivity)

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:

111-42-2 diethanolamine

LC50	133 mg/L (daphnia magna (Großer Wasserfloh))
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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.

. Ecotoxicological effects:

. **Remark:** Very toxic for fish

. Additional ecological information:

. General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

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

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

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Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms

. 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

. **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

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. 14.4 Packing group . ADR, IMDG, IATA	III
. 14.5 Environmental hazards: . Marine pollutant:	Product contains environmentally hazardous substances: hydroquinone Yes
. Special marking (ADR): . Special marking (IATA):	Symbol (fish and tree) Symbol (fish and tree)
. 14.6 Special precautions for user . Danger code (Kemler): . EMS Number:	Warning: Miscellaneous dangerous substances and articles. 90 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
. Transport category	3
. Tunnel restriction code	E
. UN "Model Regulation":	UN3082, 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
- . Labelling according to Regulation (EC) No 1272/2008 GHS label elements
- . 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.
- 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.
- H413 May cause long lasting harmful effects to aquatic life.
- R22 Harmful if swallowed.
- R31 Contact with acids liberates toxic gas.
- R38 Irritating to skin.
- R40 Limited evidence of a carcinogenic effect.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.

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R48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.

R50 Very toxic to aquatic organisms.

R51/53 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:**

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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