Safety Data Sheet
according to 1907/2006/EC, Article 31

Printing date 05.05.2010 version no: 1 Revision: 05.05.2010

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1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

· **Trade name:** **Ultrafin liquid**

· **Article number:** 100152 0,25L, 100154 1L, 1134/9, 44062
· **Application of the substance / the preparation**
Developer for photographic use
Universal developer, that brings fine-grained negatives with good contrasts range in light and shadow uses full sensitivity

· **Manufacturer/Supplier:**
TETENAL AG & CO. KG
Schützenwall 31-35
D-22844 Norderstedt / Germany
Tel.: +49 040 521 45-0
Fax: +49 040-52145-296
www.tetenal.com
E-mail: info@tetenal.com

TETENAL LTD., Unit 1, Foxholes Road
Leicester LE3 1TH / Great Britain
Tel.: +44 0870 460 8996 Fax: +44 0870 460 8997, e.mail: uk@tetenal.com, www.tetenal.co.uk

· **Further information obtainable from:** Department environment and safety. E-mail: info@tetenal.com
· **Information in case of emergency:** Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

2 Hazards identification

· **Hazard description:** Not applicable.
· **Information concerning particular hazards for human and environment:**
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
· **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
· **GHS label elements**
H412 - Harmful to aquatic life with long lasting effects.

Contains METOL p-Methylaminophenol-sulfate,
(bis(4-hydroxy-N-methylanilinium) sulphate), Hydroquinone (1,4-dihydroxybenzene). May produce an allergic reaction.
· **Prevention:**
P273 Avoid release to the environment.
· **Disposal:**
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

· **Chemical characterization**
· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 584-08-7 EINECS: 209-529-3	potassium carbonate Xi; R 36/38 Warning: 3.2/2, 3.3/2	1-5%

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CAS: 7775-19-1 EINECS: 231-891-6	Sodium metaborate, anhydrous Xn; R 62-63 Warning: 3.7/2	1-5%
CAS: 55-55-0 EINECS: 200-237-1	METOL p-Methylaminophenol-sulfate, (bis(4-hydroxy-N-methylanilinium) sulphate) Xn, Xi, N; R 22-43-48/22-50/53 Warning: 3.9/2; 4.1.A/1, 4.1.C/1; 3.1.O/4, 3.4.S/1	<1%
CAS: 123-31-9 EINECS: 204-617-8	Hydroquinone (1,4-dihydroxybenzene) Carc. Cat. 3, Muta. Cat. 3; Xn, Xi, N; R 22-40-41-43-68-50 Danger: 3.3/1 Warning: 3.5/2, 3.6/2; 4.1.A/1; 3.1.O/4, 3.4.S/1	<1%
CAS: 92-43-3 EINECS: 202-155-1	1-phenyl-3-pyrazolidone Xn, N; R 22-51/53 Warning: 3.1.O/4 4.1.C/2	<2%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· **General information:** Immediately remove any clothing/shoes soiled by the product.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Immediately rinse with water.
· **After eye contact:** Rinse opened eye for several (15 min) under running water.
· **After swallowing:**
Rinse out mouth and then drink plenty of water.
If symptoms persist consult doctor.

5 Fire-fighting measures

· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **Special hazards caused by the substance, its products of combustion or resulting gases:**
Under certain fire conditions, traces of other toxic gases cannot be excluded.
· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Person-related safety precautions:** Ensure adequate ventilation
· **Measures for environmental protection:**
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.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pick up mechanically.

7 Handling and storage

· **Handling:**
· **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.

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

· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Store away from foodstuffs.
· **Further information about storage conditions:**
Protect from heat and direct sunlight.
Store under lock and key and out of the reach of children.
Recommended storage temperature: 5-25°C
Protect from exposure to the light.

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists valid during the making were used as basis.

· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **Respiratory protection:**
Not required.
Ensure adequate ventilation
· **Protection of hands:**
Impervious gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
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
· **Penetration time of glove material**
Gove material: Butyl rubber with breakthroug-time: ≥ 480 min, layer thickness: ≥0,4 mm
Gloves made of nitrile rubber with layer thickness >0,38mm and breakthrough-time >480min
Glove material: Neopren with breakthrough time: >240 min, layer thickness: >0,65 mm
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

Safety glasses

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· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **General Information**	
Form:	Fluid
Colour:	Colourless
Odour:	Light
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100°C
· **Flash point:**	Not applicable.
· **Ignition temperature:**	305°C
· **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:**	1.217 g/cm³
· **Solubility in / Miscibility with water:**	Fully miscible.
· **pH-value at 20°C:**	10.6
· **Solvent content:**	
Organic solvents:	18.3 %
Water:	59.2 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Materials to be avoided:**
· **Dangerous reactions** No dangerous reactions known.
· **Dangerous decomposition products:** Irritant gases/vapours

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11 Toxicological information

· **Acute toxicity:**

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

55-55-0 METOL p-Methylaminophenol-sulfate, (bis(4-hydroxy-N-methylanilinium) sulphate)

Oral	LD50	237 mg/kg (rat)
Dermal	LD50	>1000 mg/kg (rat)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.

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12 Ecological information

· **Ecotoxical effects:**

· **Acquatic toxicity:**	
55-55-0 METOL p-Methylaminophenol-sulfate, (bis(4-hydroxy-N-methylanilinium) sulphate)	
EC50	72h: 10 mg/l (alg) 19 mg/l (daphnia magma) 48h: 0.02 mg/l (inv)
LC50	96h: 0.25 mg/l (fat)

· **Remark:** Harmful to fish
· **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.
Harmful to aquatic organisms

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13 Disposal considerations

· **Product:**
· **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.

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14 Transport information

· **Land transport ADR/RID (cross-border)**
· **ADR/RID class:** -

· **Maritime transport IMDG:**
· **IMDG Class:** -
· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** -

· **UN "Model Regulation":** -

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15 Regulatory information

· **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Risk phrases:**
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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· **Safety phrases:**
29 Do not empty into drains.

· **Special labelling of certain preparations:**
Contains METOL p-Methylaminophenol-sulfate,
(bis(4-hydroxy-N-methylanilinium) sulphate), Hydroquinone (1,4-dihydroxybenzene). May produce an allergic reaction.

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 R-phrases**
22 Harmful if swallowed.
36/38 Irritating to eyes and skin.
40 Limited evidence of a carcinogenic effect.
41 Risk of serious damage to eyes.
43 May cause sensitisation by skin contact.
48/22 Harmful: danger of serious damage to health by prolonged exposure if swallowed.
50 Very toxic to aquatic organisms.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
62 Possible risk of impaired fertility.
63 Possible risk of harm to the unborn child.
68 Possible risk of irreversible effects.

· **Department issuing MSDS:** Department product safety
· **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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
· *** Data compared to the previous version altered.**

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