

21.07.2022

Kit Components

Product code	Description
102268 Kit	Professional RA-4 CD-R Prof DP160 Digital Plus Farbentwickler-Regenerator

Components:

102268	professionalline RA-4 CD-R PROF. DP160 Digital Plus Colour Developer Replenisher
102268 Part 2	professionalline RA-4 DP160 CD-R PROF Colour Developer Replenisher Part 2

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

TETENAL

Printing date 21.07.2022

version no: 8 (replaces version 7)

Revision: 21.07.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name: professionalline RA-4 CD-R PROF. DP160 Digital Plus
Colour Developer Replenisher

Article number: 102268

Index number:

None of the ingredients is listed.

UFI: FQP3-COXY-6004-KNN6

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**

Met. Corr.1 H290 May be corrosive to metals.
Acute Tox. 4 H302 Harmful if swallowed.
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

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

Hazard pictograms

GHS05 GHS07 GHS09

Signal word Danger

Hazard-determining components of labelling:

diethylene glycol
N-[2-[(4-amino-m-tolyl)ethylamino]ethyl]methanesulphonamide (CD-3 base)
potassium hydroxide

Hazard statements

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements

- P234 Keep only in original packaging.
 P260 Do not breathe dusts or mists.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 P330 Rinse mouth.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P391 Collect spillage.
 P405 Store locked up.
 P406 Store in a corrosion resistant container / container with a resistant inner liner.
 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 Mixtures

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

Dangerous components:

CAS: 111-46-6	diethylene glycol	5-10%
EINECS: 203-872-2	⚠ Acute Tox. 4, H302	
Index number: 603-140-00-6		
CAS: 92-09-1	N-[2-[(4-amino-m-tolyl)ethylamino]ethyl]methanesulphonamide (CD-3 base)	1-5%
EINECS: 202-124-2		
Reg.nr.: 01-2120800406-66-0000	⚠ Acute Tox. 3, H301; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Sens. 1, H317	
CAS: 1310-58-3	potassium hydroxide	1-5%
EINECS: 215-181-3	⚠ Met. Corr.1, H290; Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	
Index number: 019-002-00-8	Specific concentration limits: Skin Corr. 1A; H314: C ≥ 5 %	
Reg.nr.: 01-2119487136-33	Skin Corr. 1B; H314: 2 % ≤ C < 5 % Skin Irrit. 2; H315: 0.5 % ≤ C < 2 % Eye Irrit. 2; H319: 0.5 % ≤ C < 2 % Met. Corr.1; H290: C ≥ 1 %	
CAS: 3710-84-7	N,N-diethylhydroxylamine (DEHA)	1-5%
EINECS: 223-055-4	⚠ Flam. Liq. 3, H226; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; STOT SE 3, H335	
Reg.nr.: 01-2119962470-39		

Not hazardous components:

CAS: 7732-18-5	water	50-90%
EINECS: 231-791-2		

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CAS: 25322-68-3	Polyethylene glycol	10-<25%
Polymer		
CAS: 102-71-6	Triethanolamine	5-10%
EINECS: 203-049-8		
Reg.nr.: 01-2119486482-31		

. **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.
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.
Rinse mouth.
- . **Information for doctor:**
Links for hazardous substances data: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index.jsp>
- . **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:** Use fire extinguishing methods suitable to surrounding conditions.
- . **5.2 Special hazards arising from the substance or mixture**
Nitrogen oxides (NOx)
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.
Ensure adequate ventilation.

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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: 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.

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

8.1 Control parameters**Ingredients with limit values that require monitoring at the workplace:****25322-68-3 Polyethylene glycol (10-<25%)**

WEEL (USA) Long-term value: 10 mg/m³
(H); MW>200

111-46-6 diethylene glycol (5-10%)

WEL (Great Britain) Long-term value: 101 mg/m³, 23 ppm
WEEL (USA) Long-term value: 10 mg/m³

102-71-6 Triethanolamine (5-10%)

TLV (USA) Long-term value: 5 mg/m³

1310-58-3 potassium hydroxide (1-5%)

WEL (Great Britain) Short-term value: 2 mg/m³
REL (USA) Ceiling limit: 2 mg/m³
TLV (USA) Ceiling limit: 2 mg/m³

3710-84-7 N,N-diethylhydroxylamine (DEHA) (1-5%)

TLV (USA) Long-term value: 2 ppm

DNELs**111-46-6 diethylene glycol**

Dermal	Long-term - systemic - effects	43 mg/kg bw/day (Worker (Arbeiter))
	Long-term - systemic effects (dynamic)	21 mg/kg bw/day (general population- Verbraucher)
Inhalative	Long-term - local - effects	60 mg/m ³ (Worker (Arbeiter))
	Long-term - systemic effects	12 mg/m ³ (Consumer (Verbraucher))

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	Long-term- systemics effects	44 mg/m ³ (Worker (Arbeiter))
1310-58-3 potassium hydroxide		
	Inhalative Long-term - local - effects	1 mg/m ³ (Worker (Arbeiter))
	Long-term - systemic effects	1 mg/m ³ (general population)
3710-84-7 N,N-diethylhydroxylamine (DEHA)		
Oral	Long-term - systemic effects	0.13 mg/kg bw/day (Consumer (Verbraucher))
Dermal	Long-term - systemic - effects	0.26 mg/kg bw/day (Worker (Arbeiter))
	Akute- systemic - effects	4.7 mg/kg bw/day (Worker (Arbeiter))
Inhalative	Akute /short-term exposure - local effects	45.6 mg/m ³ (Worker (Arbeiter))
	Long-term exposure-local effects	3.65 mg/m ³ (Worker (Arbeiter))
	Long-term - local effects	0.65 mg/m ³ (general population- Verbraucher)
	Akute - local systemic	2.92 mg/m ³ (Worker (Arbeiter))
	Long-term - systemic-effects	3.65 mg/m ³ (Worker (Arbeiter))

PNECs**111-46-6 diethylene glycol**

	Aquatic compartment - freshwater	10 mg/l (-)
	Aquatic compartment - marine water	1 mg/l (-)
	Aquatic compartment -water,intermittent releases	10 mg/l (-)
	Aquatic compartment -sediment in freshwater	20.9 mg/kg sed dw (-)
	Terrestrial compartment -soil	1.53 mg/kg dw (-)
	Sewage treatment plant (Abwasserreinigungsanlagen)	199.5 mg/l (-)

3710-84-7 N,N-diethylhydroxylamine (DEHA)

	Aquatic compartment - freshwater	0.0082 mg/l (-)
	Aquatic compartment - marine water	0.00082 mg/l (-)
	Aquatic compartment -water,intermittent releases	0.082 mg/l (-)
	Aquatic compartment -sediment in freshwater	0.0652 mg/kg sed dw (-)
	Aquatic compartment -sediment in marine water	0.00652 mg/kg sed dw (-)
	Terrestrial compartment -soil	0.0082 mg/kg dw (-)
	Sewage treatment plant (Abwasserreinigungsanlagen)	10 mg/l (-)

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

8.2 Exposure controls

Appropriate engineering controls No further data; see item 7.

Individual protection measures, such as 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:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Ensure adequate ventilation

Hand protection



Protective gloves

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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.

Eye/face 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**

Colour:	Light orange colour
Odour:	Recognisable
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	>100 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	136 °C
Decomposition temperature:	Not determined.
pH at 20 °C	~13.6
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Fully miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C:	1.09 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.

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. 9.2 Other information	
. Appearance:	
. Form:	Fluid
. Important information on protection of health and environment, and on safety.	
. Auto-ignition temperature:	Product is not selfigniting.
. Explosive properties:	Product does not present an explosion hazard.
. Solvent content:	
. Organic solvents:	18.4 %
. Water:	50-90 %
. VOC (EC)	21.54 %
. Solids content:	0.0 %
. Change in condition	
. Evaporation rate	Not determined.

. Information with regard to physical hazard classes	
. Explosives	Void
. Flammable gases	Void
. Aerosols	Void
. Oxidising gases	Void
. Gases under pressure	Void
. Flammable liquids	Void
. Flammable solids	Void
. Self-reactive substances and mixtures	Void
. Pyrophoric liquids	Void
. Pyrophoric solids	Void
. Self-heating substances and mixtures	Void
. Substances and mixtures, which emit flammable gases in contact with water	Void
. Oxidising liquids	Void
. Oxidising solids	Void
. Organic peroxides	Void
. Corrosive to metals	May be corrosive to metals.
. Desensitised explosives	Void

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.
- . 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 hazard classes as defined in Regulation (EC) No 1272/2008**
- . Acute toxicity**
Harmful if swallowed.

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. LD/LC50 values relevant for classification:

111-46-6 diethylene glycol

Oral LD50 12,565 mg/kg (rat)

92-09-1 N-[2-[(4-amino-m-tolyl)ethylamino]ethyl]methanesulphonamide (CD-3 base)

Oral LD50 <300 mg/kg /bw (rat) (OECD guideline 401)

1310-58-3 potassium hydroxide

Oral LD50 333 mg/kg (rat)

3710-84-7 N,N-diethylhydroxylamine (DEHA)

Oral LD50 2,190 mg/kg (rat)

Dermal LD50 1,300 mg/kg (rabbit)

Inhalative LC50 4 mg/l (rat)

. Skin corrosion/irritation

Causes severe skin burns and eye damage.

. Serious eye damage/irritation

Causes serious eye damage.

. Respiratory or skin sensitisation

May cause an allergic skin reaction.

. Germ cell mutagenicity Based on available data, the classification criteria are not met.

. Carcinogenicity Based on available data, the classification criteria are not met.

. 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.

. Additional toxicological information:

. 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:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

. 11.2 Information on other hazards

. Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity:

111-46-6 diethylene glycol

EC50 24 mg/l (daphnia magna (Water flea))

LC50 96 mg/l (Invertebrates)

92-09-1 N-[2-[(4-amino-m-tolyl)ethylamino]ethyl]methanesulphonamide (CD-3 base)

EC50 >4 mg/l /7 d (fresh water)

3.2 mg/l /48 h (Invertebrates) (OECD test guideline 202)

1310-58-3 potassium hydroxide

LC50 96 mg/l (fish: Gambusia affinis)

24 mg/l (fish: Poecilia reticulata)

3710-84-7 N,N-diethylhydroxylamine (DEHA)

EC50 48 mg/l (daphnia magna (Water flea))

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- 96 mg/l (fish: Pimephales promelas) (OECD 203)
- LC50 96 mg/l (fish: 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.
 - . **12.5 Results of PBT and vPvB assessment**
 - . **PBT:** Not applicable.
 - . **vPvB:** Not applicable.
 - . **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
 - . **12.7 Other adverse effects**
 - . **Remark:** Toxic for fish
 - . **Additional ecological information:**
 - . **General notes:**
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
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.
Do not allow product to reach ground water, water course or sewage system.
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.

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 00 00 WASTES FROM THE PHOTOGRAPHIC INDUSTRY
- 09 01 00 wastes from the photographic industry
- 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

- | | |
|---|---|
| <ul style="list-style-type: none"> . 14.1 UN number or ID number . ADR, IMDG, IATA | <p style="text-align: center;">UN3267</p> |
| <ul style="list-style-type: none"> . 14.2 UN proper shipping name . ADR . IMDG . IATA | <p>3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE, N-[2-[(4-amino-m-tolyl)ethylamino]ethyl]methanesulphonamide), ENVIRONMENTALLY HAZARDOUS</p> <p>CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE, N-[2-[(4-amino-m-tolyl)ethylamino]ethyl]methanesulphonamide), MARINE POLLUTANT</p> <p>CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE)</p> |

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. 14.3 Transport hazard class(es)	
. ADR	
. Class	8 (C7) Corrosive substances.
. Label	8
<hr/>	
. IMDG, IATA	
. Class	8 Corrosive substances.
. Label	8
. 14.4 Packing group	
. ADR, IMDG, IATA	III
. 14.5 Environmental hazards:	
	Product contains environmentally hazardous substances: N-[2-[(4-amino-m-tolyl)ethylamino]ethyl]methanesulphonamide
. Marine pollutant:	Yes
	Symbol (fish and tree)
. Special marking (ADR):	Symbol (fish and tree)
. 14.6 Special precautions for user	
. Hazard identification number (Kemler code):	Warning: Corrosive substances. 80
. EMS Number:	F-A,S-B
. Segregation groups	(SGG18) Alkalis
. Stowage Category	A
. Stowage Code	SW2 Clear of living quarters.
. Segregation Code	SG35 Stow "separated from" SGG1-acids
. 14.7 Maritime transport in bulk according to IMO instruments	
	Not applicable.
. Transport/Additional information:	
<hr/>	
. 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
<hr/>	
. 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":	
	UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE, N-[2-[(4-AMINO-M-TOLYL)ETHYLAMINO]ETHYL]METHANESULPHONAMIDE), 8, III, ENVIRONMENTALLY HAZARDOUS

. 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****. Directive 2012/18/EU****. Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t****. Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t****. REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3**

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. DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

. REGULATION (EU) 2019/1148

. Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

. Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

. Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

. Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

. 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

H226 Flammable liquid and vapour.

H290 May be corrosive to metals.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

. Classification according to Regulation (EC) No 1272/2008

Corrosive to metals

On basis of test data

Acute toxicity - oral

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

Skin corrosion/irritation

Serious eye damage/eye irritation

Skin sensitisation

Hazardous to the aquatic environment - long-term

(chronic) aquatic hazard

. Contact: E: sida@tetenal.com

. Date of previous version: 29.04.2021

. Version number of previous version: 7

. Abbreviations and acronyms:

ADR: Accord relatif au transport international 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)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

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Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 21.07.2022

version no: 8 (replaces version 7)

Revision: 21.07.2022

**Trade name: professionalline RA-4 CD-R PROF. DP160 Digital Plus
Colour Developer Replenisher**

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LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 3: Flammable liquids – Category 3
Met. Corr. 1: Corrosive to metals – Category 1
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Sources

Sources of key data used to compile the safety data sheet:

This Safety Data Sheet was prepared according to Annex II of the Regulation (EC) No. 1907/2006 (UK REACH). References to other legal acts and standards are indicated directly in the corresponding sections.

The data on physical and chemical properties of the product was generated in the laboratory of TETENAL 1847 GmbH.

The source for the toxicological data is the Registry of Toxic Effects of Chemical Substances (RTECS®).

The eco-toxicological data was received from our suppliers of raw substances.

Other sources: catalogue of phrases from the SDS-Software provider.

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

-EN-

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

TETENAL

Printing date 21.07.2022

version no: 8 (replaces version 7)

Revision: 21.07.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name: professionalline RA-4 DP160 CD-R PROF
Colour Developer Replenisher Part 2

Article number: 102268 Part 2

Index number:

None of the ingredients is listed.

UFI: 3TA5-H0N5-E00K-5SCK

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**

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

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

Hazard pictograms

GHS07

Signal word Warning

Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P280 Wear protective gloves / eye 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.

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. vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

. 3.2 Mixtures

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

CAS: 584-08-7	potassium carbonate	10-<25%
EINECS: 209-529-3	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
Reg.nr.: 01-2119532646-36		
CAS: 133986-51-3	2,2'-(Hydroxylimino)bisethanesulphonicacid, disodium salt (DSEHA)	1-5%
ELINCS: 407-370-6	⚠ Eye Irrit. 2, H319	
Reg.nr.: 01-0000015682-69		
CAS: 140-01-2	Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5)	1-5%
EINECS: 205-391-3	⚠ STOT RE 2, H373; ⚠ Acute Tox. 4, H332	
Index number: 607-736-00-7		
Reg.nr.: 01-2119474445-33		

. **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:** 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. If symptoms persist, consult a doctor.

. **After swallowing:** Do not induce vomiting; call for medical help 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)

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:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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Trade name: professionalline RA-4 DP160 CD-R PROF
Colour Developer Replenisher Part 2

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- . **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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 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

- . **8.1 Control parameters**
- . **Ingredients with limit values that require monitoring at the workplace:**
- 3710-84-7 N,N-diethylhydroxylamine (DEHA) (1-5%)**
- TLV (USA) Long-term value: 2 ppm
- . **Additional information:** The lists valid during the making were used as basis.
- . **8.2 Exposure controls**
- . **Appropriate engineering controls** No further data; see item 7.
- . **Individual protection measures, such as 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:** Ensure adequate ventilation
- . **Hand protection**



Protective gloves

Impervious gloves

(Contd. on page 4)

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Trade name: **professionalline RA-4 DP160 CD-R PROF** **Colour Developer Replenisher Part 2**

(Contd. of page 3)

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.

Eye/face 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

Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	>100 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	Not determined.
Upper:	Not determined.
Flash point:	Not applicable.
Decomposition temperature:	Not determined.
pH at 20 °C	~10.1
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Fully miscible.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C:	1.23 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.

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Trade name: professionalline RA-4 DP160 CD-R PROF
Colour Developer Replenisher Part 2

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- 9.2 Other information**
- Appearance:**
- Form:** Fluid
- Important information on protection of health and environment, and on safety.**
- Auto-ignition temperature:** Product is not selfigniting.
- Explosive properties:** Product does not present an explosion hazard.
- Solvent content:**
- Water:** 50-90 %
- VOC (EC)** 0.00 %
- Solids content:** 0.0 %
- Change in condition**
- Evaporation rate** Not determined.

- Information with regard to physical hazard classes**
- Explosives** Void
- Flammable gases** Void
- Aerosols** Void
- Oxidising gases** Void
- Gases under pressure** Void
- Flammable liquids** Void
- Flammable solids** Void
- Self-reactive substances and mixtures** Void
- Pyrophoric liquids** Void
- Pyrophoric solids** Void
- Self-heating substances and mixtures** Void
- Substances and mixtures, which emit flammable gases in contact with water** Void
- Oxidising liquids** Void
- Oxidising solids** Void
- Organic peroxides** Void
- Corrosive to metals** Void
- Desensitised explosives** Void

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.
- 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 hazard classes as defined in Regulation (EC) No 1272/2008**
- Acute toxicity** Based on available data, the classification criteria are not met.
- LD/LC50 values relevant for classification:**
- 584-08-7 potassium carbonate**
 Oral LD50 >2,000 mg/kg (rat)

(Contd. on page 6)

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**Trade name: professionalline RA-4 DP160 CD-R PROF
Colour Developer Replenisher Part 2**

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

Oral LD50 >2,000 mg/kg (rat)

. Skin corrosion/irritation

Causes skin irritation.

. Serious eye damage/irritation

Causes serious eye irritation.

. Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

. Germ cell mutagenicity Based on available data, the classification criteria are not met.

. Carcinogenicity Based on available data, the classification criteria are not met.

. 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.

. Additional toxicological information:

. 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

. 11.2 Information on other hazards

. Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity:

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

EC50 48 mg/l (daphnia magna (Water flea))

48 mg/l (Invertebrates)

LC50 96 mg/l (fish)

96 mg/l (Lepomis macrochirus (Sonnenbarsch))

. 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.

. 12.5 Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

. 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

. 12.7 Other adverse effects

. Additional ecological information:

. General notes:

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

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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 00 00 WASTES FROM THE PHOTOGRAPHIC INDUSTRY

09 01 00 wastes from the photographic industry

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Trade name: professionalline RA-4 DP160 CD-R PROF
Colour Developer Replenisher Part 2

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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 or ID number . ADR, ADN, IMDG, IATA	Void
. 14.2 UN proper shipping name . ADR, ADN, IMDG, IATA	Void
. 14.3 Transport hazard class(es) . ADR, ADN, IMDG, IATA . Class	Void
. 14.4 Packing group . ADR, IMDG, IATA	Void
. 14.5 Environmental hazards: . Marine pollutant:	No
. 14.6 Special precautions for user	Not applicable.
. 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
. UN "Model Regulation":	Void

- . **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**
- . **REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3**
- . **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.
- . **REGULATION (EU) 2019/1148**
- . **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
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- . **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
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- . **Regulation (EC) No 273/2004 on drug precursors**
None of the ingredients is listed.
- . **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
None of the ingredients is listed.
- . **Regulation (EC) No 648/2004 on detergents / Labelling for contents**
- . **Information about limitation of use:**
Employment restrictions concerning pregnant and lactating women must be observed.
- . **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.

(Contd. on page 8)

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Colour Developer Replenisher Part 2

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Relevant phrases

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.

Classification according to Regulation (EC) No 1272/2008

Skin corrosion/irritation Serious eye damage/eye irritation Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
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Contact: E: sida@tetenal.com

Date of previous version: 29.04.2021

Version number of previous version: 7

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 Acute Tox. 4: Acute toxicity – Category 4
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation – 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 Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Sources

Sources of key data used to compile the safety data sheet:

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