

Product code	Description
102124 Kit	COLORTEC RA-4 Professional Print Kit RT for 5 Liter

Components:

102124	Colortec RA-4 Professional Print Kit RT Colour Developer
102124 CD-P2	Colortec RA-4 Prof. Print Kit RT CD-Part 2
102124 BX P1	Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 1
102124 BX-P2	Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 2

Safety Data Sheet acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/30/2014

1: Identification

- . **1.1 Product identifier**
- . **Trade name:** COLORTEC RA-4 Professional Print Kit RT Colour Developer
- . **Article number:** 102124, CD-P1
- . **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- . **Application of the substance / the mixture** Developer for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL Europe GmbH
Schützenwall 31-35
D-22844 Norderstedt/Germany
Phone: ++49 (0) 40 521 45-0, Fax: ++49 (0) 40 521 45-296
www.tetenal.com; E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:**
Poison Information Centre Berlin/Germany: +49 (0) 30 - 30686 790 (English 24hours)

2: Hazard(s) identification

- . **2.1 Classification of the substance or mixture**
- . **Classification according to Regulation (EC) No 1272/2008**
Avoid contact with eyes, skin and clothing. Avoid mist. Keep container closed. Use eye protection, chemical-resistant gloves and skin protection.
Wash thoroughly after handling. **FIRST AID:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and immediately flush skin with soap and with plenty of water. Get medical attention if symptoms occur. If swallowed induce vomiting immediately as directed by medical personnel.



GHS09

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Skin Sens. 1 H317 May cause an allergic skin reaction.

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



Harmful

Harmful if swallowed.



Irritant

May cause sensitisation by skin contact.



Dangerous for the environment

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- . **Information concerning particular hazards for human and environment:**

The product has to be labeled due to the calculation procedure of international guidelines.

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. Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

. 2.2 Label elements

. Labelling according to EU guidelines:

The product has been classified and marked in accordance with directives on hazardous materials.

. Code letter and hazard designation of product:



Xn Harmful
N Dangerous for the environment

. Hazard-determining components of labeling:

p-Phenylendiaminderivat (CD-3)

N-(2-(4-amino-N-ethyl-m-toluidino)ethyl)methanesulphonamide sesquisulphate (CD-3)
diethylene glycol

. Risk phrases:

Harmful if swallowed.

May cause sensitisation by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

. Safety phrases:

Avoid contact with skin.

Wear suitable gloves.

Use appropriate container to avoid environmental contamination.

. Classification system:

. NFPA ratings (scale 0 - 4)



Health = 2
Fire = 0
Reactivity = 0

. HMIS-ratings (scale 0 - 4)



Health = 2
Fire = 0
Reactivity = 0

. 2.3 Other hazards

. Results of PBT and vPvB assessment

. **PBT:** Not applicable.

. **vPvB:** Not applicable.

3: Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

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

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. Dangerous components:

CAS: 111-46-6 Index number: 603-140-00-6 RTECS: ID 5950000	diethylene glycol	25-50%
CAS: 107-21-1 Index number: 603-027-00-1 RTECS: KW 2975000	ethylene glycol	10-25%
CAS: 25646-71-3 Index number: 612-134-00-2	p-Phenylendiaminderivat (CD-3) N-(2-(4-amino-N-ethyl-m-toluidino)ethyl)methanesulphonamide sesquisulphate (CD-3)	5-10%

4: First-aid measures

. 4.1 Description of first aid measures

. **General information:** Immediately remove any clothing 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. If symptoms persist, consult a doctor.

. After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

. 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.

5: Fire-fighting measures

. 5.1 Extinguishing media

. Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

. 5.2 Special hazards arising from the substance or mixture

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

. 5.3 Advice for firefighters

. **Protective equipment:** No special measures required.

6: Accidental release measures

. **6.1 Personal precautions, protective equipment and emergency procedures** 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).

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.

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Trade name: COLORTEC RA-4 Professional Print Kit RT Colour Developer

See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

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7: Handling and storage

. 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.
Prevent formation of aerosols.

. **Information about protection against explosions and fires:** No special measures required.

. 7.2 Conditions for safe storage, including any incompatibilities

. Storage:

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

. Information about storage in one common storage facility:

Store away from foodstuffs.
Store away from oxidizing agents.

. 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.

. **7.3 Specific end use(s)** No further relevant information available.

8: Exposure controls/personal protection

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

. 8.1 Control parameters

. Components with limit values that require monitoring at the workplace:

111-46-6 diethylene glycol (25-50%)

WEEL (USA)	Long-term value: 10 mg/m ³
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107-21-1 ethylene glycol (10-<25%)

TLV (USA)	Short-term value: C 100 mg/m ³ H
IOELV (EU)	Short-term value: 104 mg/m ³ , 40 ppm Long-term value: 52 mg/m ³ , 20 ppm Skin

. **Additional information:** The lists that were valid during the creation 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 contact with the eyes and skin.

. Breathing equipment:

Not necessary if room is well-ventilated.
required at the appearance from fumes/vapours/aerosol. Filter ABEK

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Trade name: COLORTEC RA-4 Professional Print Kit RT Colour Developer

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. 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

Neoprene gloves

Nitrile rubber, NBR

. 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 protection:



Tightly sealed goggles

. Body protection: Protective work clothing

9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Color:	Light red
. Odor:	Pungent to sulfur dioxide

. pH-value at 20 °C (68 °F): 2

. Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100 °C (> 212 °F)

. Flash point: Not applicable.

. Ignition temperature: 230 °C (446 °F)

. Auto igniting: Product is not selfigniting.

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

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Trade name: COLORTEC RA-4 Professional Print Kit RT Colour Developer

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- . **Explosion limits:**
 - Lower:** 0.7 Vol %
 - Upper:** 53.0 Vol %
- . **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)
- . **Density at 20 °C (68 °F):** 1.097 g/cm³ (9.154 lbs/gal)
- . **Solubility in / Miscibility with Water:** Fully miscible.
- . **Solvent content:**
 - Organic solvents:** 25.8 %
 - Water:** >44 %
 - VOC content:** 25.8 %
- . **9.2 Other information** No further relevant information available.

10: Stability and reactivity

- . **10.1 Reactivity**
- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- . **10.3 Possibility of hazardous reactions** Reacts with acids, alkalis and oxidizing agents.
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** No further relevant information available.
- . **10.6 Hazardous decomposition products:** Irritant gases/vapors

11: Toxicological information

. 11.1 Information on toxicological effects

. Acute toxicity:

. LD/LC50 values that are relevant for classification:

25646-71-3 p-Phenylendiaminderivat (CD-3)
N-(2-(4-amino-N-ethyl-m-toluidino)ethyl)methanesulphonamide sesquisulphate (CD-3)

Oral	LD50	931 mg/kg (rat)
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. Primary irritant effect:

- . **on the skin:** No irritant effect.
- . **on the eye:** No irritating effect.
- . **Sensitization:** Sensitization possible through skin contact.

. Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:
 Harmful
 Irritant

. Carcinogenic categories

. IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

. NTP (National Toxicology Program)

None of the ingredients is listed.

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Trade name: COLORTEC RA-4 Professional Print Kit RT Colour Developer

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. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity:

25646-71-3 p-Phenylenediamine derivat (CD-3)

N-(2-(4-amino-N-ethyl-m-toluidino)ethyl)methanesulphonamide sesquisulphate (CD-3)

LC50 96h: 1.8 mg/L (fat)

. 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: Toxic for fish

. Additional ecological information:

. General notes:

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

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

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

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

. 12.5 Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

. 12.6 Other adverse effects No further relevant information available.

13: Disposal considerations

. 13.1 Waste treatment methods

. Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

. Uncleaned packagings:

. Recommendation: Disposal must be made according to official regulations.

. Recommended cleansing agent: Water, if necessary with cleansing agents.

14: Transport information

. 14.1 UN-Number

. DOT

Void

. ADR, IMDG, IATA

UN3082

. 14.2 UN proper shipping name

. DOT

Void

. ADR

3082 Environmentally hazardous substances, liquid, n.o.s.
(p-Phenylenediamine derivate CD-3)

. IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (p-Phenylenediamine derivate CD-3),
MARINE POLLUTANT

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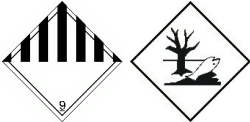
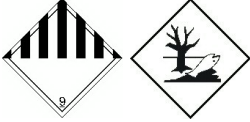
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Trade name: COLORTEC RA-4 Professional Print Kit RT Colour Developer

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. IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (p-Phenylenediamine derivate CD-3)
. 14.3 Transport hazard class(es)	
. DOT	
. Class	Void
<hr style="border-top: 1px dashed black;"/>	
. ADR	
	
. Class	9 (M6) Miscellaneous dangerous substances and articles
. Label	9
<hr style="border-top: 1px dashed black;"/>	
. IMDG, IATA	
	
. Class	9 Miscellaneous dangerous substances and articles
. Label	9
. 14.4 Packing group	
. DOT	Void
. ADR, IMDG, IATA	III
. 14.5 Environmental hazards:	Product contains environmentally hazardous substances: p-Phenylenediamine derivate CD-3
. 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
. Danger code (Kemler):	90
. EMS Number:	F-A,S-F
. 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
<hr style="border-top: 1px dashed black;"/>	
. Transport/Additional information:	
<hr style="border-top: 1px dashed black;"/>	
. ADR	
. Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<hr style="border-top: 1px dashed black;"/>	
. 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

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. **UN "Model Regulation":** UN3082, Environmentally hazardous substances, liquid, n.o.s. (p-Phenylenediamine derivate CD-3), 9, III

15: Regulatory information

. **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
. **Sara**

. **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

. **Section 313 (Specific toxic chemical listings):**

107-21-1	ethylene glycol
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. **TSCA (Toxic Substances Control Act):**

7732-18-5	water
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111-46-6	diethylene glycol
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107-21-1	ethylene glycol
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25646-71-3	p-Phenylenediaminderivat (CD-3)
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	N-(2-(4-amino-N-ethyl-m-toluidino)ethyl)methanesulphonamide sesquisulphate (CD-3)
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. **Proposition 65**

. **Chemicals known to cause cancer:**

None of the ingredients is listed.

. **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

. **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

. **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

. **Carcinogenicity categories**

. **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

. **TLV (Threshold Limit Value established by ACGIH)**

107-21-1	ethylene glycol	A4
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. **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

. **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

. **Department issuing MSDS:** Department product safety

. **Contact:** e-mail: sida@tetenal.com

. **Date of preparation / last revision** 07/30/2014 / -

. **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)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

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ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

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

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

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

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

1: Identification

- . **1.1 Product identifier**
- . **Trade name:** Colortec RA-4 Prof. Print Kit RT CD-Part 2
- . **Article number:** 102124 CD-P2, 44124
- . **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- . **Application of the substance / the mixture** Developer for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL Europe GmbH
Schützenwall 31-35
D-22844 Norderstedt/Germany
Phone: ++49 (0) 40 521 45-0, Fax: ++49 (0) 40 521 45-296
www.tetenal.com; E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:**
Poison Information Centre Berlin/Germany: +49 (0) 30 - 30686 790 (English 24hours)

2: Hazard(s) identification

- . **2.1 Classification of the substance or mixture**
- . **Classification according to Regulation (EC) No 1272/2008**
Avoid contact with eyes, skin and clothing. Avoid mist. Keep container closed. Use eye protection, chemical-resistant gloves and skin protection.
Wash thoroughly after handling. FIRST AID: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and immediately flush skin with soap and with plenty of water. Get medical attention if symptoms occur. If swallowed induce vomiting immediately as directed by medical personnel.



GHS07

- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2A H319 Causes serious eye irritation.

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



Irritant

- Irritating to eyes and skin.

- . **Information concerning particular hazards for human and environment:**

The product does not have to be labeled due to the calculation procedure of international guidelines.

- . **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- . **2.2 Label elements**

- . **Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations according to directives on hazardous materials.

- . **Code letter and hazard designation of product:**



Xi Irritant

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Trade name: Colortec RA-4 Prof. Print Kit RT CD-Part 2

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. Risk phrases:

Irritating to eyes and skin.

. Safety phrases:

This material and its container must be disposed of as hazardous waste.

. Classification system:

. NFPA ratings (scale 0 - 4)



. HMIS-ratings (scale 0 - 4)

HEALTH	*1	Health = *1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

. 2.3 Other hazards

. Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

3: Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

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

. Dangerous components:

CAS: 584-08-7 RTECS: TS 7750000 Reg.nr.: 01-2119532646-36	potassium carbonate	10-<25%
CAS: 133986-51-3	2,2'-(Hydroxyimino)bisethanesulphonicacid, disodium salt (SEHA)	5-10%
CAS: 111-42-2 Index number: 603-071-00-1 RTECS: KL 2975000	diethanolamine	1- <2%

4: First-aid measures

. 4.1 Description of first aid measures

. General information: Immediately remove any clothing 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 minutes under running water. Then consult a doctor.

. After swallowing:

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

. 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

. 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

USA

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Trade name: Colortec RA-4 Prof. Print Kit RT CD-Part 2

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5: Fire-fighting measures

- . **5.1 Extinguishing media**
- . **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- . **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- . **5.3 Advice for firefighters**
- . **Protective equipment:** No special measures required.

6: Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures** 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).
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.

7: Handling and storage

- . **7.1 Precautions for safe handling** No special measures required.
- . **Information about protection against explosions and fires:** No special measures required.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** No special requirements.
- . **Information about storage in one common storage facility:** Store away from foodstuffs.
- . **Further information about storage conditions:**
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: 5-25 °C
Protect from exposure to the light.
- . **7.3 Specific end use(s)** No further relevant information available.

8: Exposure controls/personal protection

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

8.1 Control parameters

- . **Components with limit values that require monitoring at the workplace:**

111-42-2 diethanolamine (1- <2%)

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

- . **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 4)

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Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT CD-Part 2

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. 8.2 Exposure controls

. Personal protective equipment:

. General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

. Breathing equipment: Ensure adequate ventilation

. Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

. Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

. Penetration time of glove material

Glove material	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 protection:



Tightly sealed goggles

. Body protection: Protective work clothing

9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Color:	Light yellow
Odor:	Recognizable

. pH-value at 20 °C (68 °F): 10.9

. Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100 °C (> 212 °F)

. Flash point: Not applicable.

(Contd. on page 5)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT CD-Part 2

(Contd. of page 4)

- . **Auto igniting:** Product is not selfigniting.
- . **Danger of explosion:** Product does not present an explosion hazard.
- . **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)
- . **Density at 20 °C (68 °F):** 1.305 g/cm³ (10.89 lbs/gal)
- . **Solubility in / Miscibility with Water:** Fully miscible.
- . **Solvent content:**
 - Organic solvents:** 1.5 %
 - Water:** >63 %
 - VOC content:** 1.5 %
- . **9.2 Other information** No further relevant information available.

10: Stability and reactivity

- . **10.1 Reactivity**
- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- . **10.3 Possibility of hazardous reactions** Reacts with acids, alkalis and oxidizing agents.
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** No further relevant information available.
- . **10.6 Hazardous decomposition products:** Irritant gases/vapors

11: Toxicological information

- . **11.1 Information on toxicological effects**
- . **Acute toxicity:**
- . **Primary irritant effect:**
 - . **on the skin:** Irritant to skin and mucous membranes.
 - . **on the eye:** Irritating effect.
- . **Sensitization:** No sensitizing effects known.
- . **Additional toxicological information:** Irritant
The product is not subject to classification according to internally approved calculation methods for preparations:

- . **Carcinogenic categories**

- . **IARC (International Agency for Research on Cancer)**

111-42-2	diethanolamine	3
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- . **NTP (National Toxicology Program)**

None of the ingredients is listed.

- . **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12: Ecological information

- . **12.1 Toxicity**
- . **Aquatic toxicity:** No further relevant information available.
- . **12.2 Persistence and degradability** No further relevant information available.

(Contd. on page 6)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT CD-Part 2

(Contd. of page 5)

- . **12.3 Bioaccumulative potential** No further relevant information available.
- . **12.4 Mobility in soil** No further relevant information available.
- . **Additional ecological information:**
- . **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Water hazard class 1 (Self-assessment): slightly hazardous for water
- . **12.5 Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **12.6 Other adverse effects** No further relevant information available.

13: Disposal considerations

- . **13.1 Waste treatment methods**
- . **Recommendation:**
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
- . **Uncleaned packagings:**
- . **Recommendation:** Disposal must be made according to official regulations.
- . **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14: Transport information

- | | |
|---|-----------------|
| . 14.1 UN-Number | Void |
| . DOT, ADR, ADN, IMDG, IATA | Void |
| . 14.2 UN proper shipping name | Void |
| . DOT, ADR, ADN, IMDG, IATA | Void |
| . 14.3 Transport hazard class(es) | Void |
| . DOT, ADR, ADN, IMDG, IATA | Void |
| . Class | Void |
| . 14.4 Packing group | Void |
| . DOT, ADR, IMDG, IATA | Void |
| . 14.5 Environmental hazards: | |
| . Marine pollutant: | No |
| . 14.6 Special precautions for user | Not applicable. |
| . 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| . UN "Model Regulation": | - |

15: Regulatory information

- . **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- . **Sara**
- . **Section 355 (extremely hazardous substances):**
- None of the ingredient is listed.

(Contd. on page 7)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT CD-Part 2

(Contd. of page 6)

. Section 313 (Specific toxic chemical listings):

111-42-2	diethanolamine
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. TSCA (Toxic Substances Control Act):

7732-18-5	water
584-08-7	potassium carbonate
144-55-8	sodium bicarbonate
7447-40-7	potassium chloride
111-42-2	diethanolamine

. Proposition 65

. Chemicals known to cause cancer:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

. Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

. Cancerogenicity categories

. EPA (Environmental Protection Agency)

None of the ingredients is listed.

. TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

. NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

. 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

. Department issuing MSDS: Department product safety

. Contact: e-mail: sida@tetenal.com

. Date of preparation / last revision 07/30/2014 / -

. 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)

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)

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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

(Contd. on page 8)

Safety Data Sheet
acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT CD-Part 2

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

(Contd. of page 7)

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

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

1: Identification

- . **1.1 Product identifier**
- . **Trade name:** Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 1
- . **Article number:** 102124 BX P1, 45474 Part 1
- . **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** Bleachfix preparation 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) 40 521 45-296
www.tetenal.com; E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:**
Poison Information Centre Berlin/Germany: +49 (0) 30 - 30686 790 (English 24hours)

2: Hazard(s) identification

- . **2.1 Classification of the substance or mixture**
- . **Classification according to Regulation (EC) No 1272/2008**
Avoid contact with eyes, skin and clothing. Avoid mist. Keep container closed. Use eye protection, chemical-resistant gloves and skin protection.
Wash thoroughly after handling. **FIRST AID:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and immediately flush skin with soap and with plenty of water. Get medical attention if symptoms occur. If swallowed induce vomiting immediately as directed by medical personnel.
The product is not classified according to the CLP regulation.
- . **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- . **Information concerning particular hazards for human and environment:**
The product does not have to be labeled due to the calculation procedure of international guidelines.
No hazards to be particularly mentioned. Please note the information of this Material Safety Data Sheet.
- . **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- . **2.2 Label elements**
- . **Labelling according to Regulation (EC) No 1272/2008** Void
- . **Hazard pictograms** Void
- . **Signal word** Void
- . **Hazard statements** Void
- . **Classification system:**
- . **NFPA ratings (scale 0 - 4)**



- . **HMIS-ratings (scale 0 - 4)**
- . **HEALTH** 0 Health = 0
- . **FIRE** 0 Fire = 0
- . **REACTIVITY** 0 Reactivity = 0

(Contd. on page 2)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 1

(Contd. of page 1)

- . **2.3 Other hazards**
- . **Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.

3: Composition/information on ingredients

- . **3.2 Chemical characterization: Mixtures**
- . **Description:** Mixture of the substances listed below with nonhazardous additions.

. **Dangerous components:**

CAS: 64-19-7 Index number: 607-002-00-6 RTECS: AF 1225000 Reg.nr.: 01-2119475328-30	acetic acid	1-5%
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4: First-aid measures

- . **4.1 Description of first aid measures**
- . **General information:** Immediately remove any clothing 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 minutes under running water.
- . **After swallowing:** If symptoms persist consult doctor.
- . **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- . **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5: Fire-fighting measures

- . **5.1 Extinguishing media**
- . **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- . **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- . **5.3 Advice for firefighters**
- . **Protective equipment:** No special measures required.

6: Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures** 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).
Pick up mechanically.
- . **6.4 Reference to other sections** No dangerous substances are released.

7: Handling and storage

- . **7.1 Precautions for safe handling** No special measures required.

(Contd. on page 3)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 1

(Contd. of page 2)

- . **Information about protection against explosions and fires:** No special measures required.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** No special requirements.
- . **Information about storage in one common storage facility:** Store away from foodstuffs.
- . **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
- . **7.3 Specific end use(s)** No further relevant information available.

8: Exposure controls/personal protection

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

8.1 Control parameters

- . **Components with limit values that require monitoring at the workplace:**

64-19-7 acetic acid (1- <2%)

PEL (USA)	Long-term value: 25 mg/m ³ , 10 ppm
REL (USA)	Short-term value: 37 mg/m ³ , 15 ppm Long-term value: 25 mg/m ³ , 10 ppm
TLV (USA)	Short-term value: 37 mg/m ³ , 15 ppm Long-term value: 25 mg/m ³ , 10 ppm
IOELV (EU)	Long-term value: 25 mg/m ³ , 10 ppm

- . **Additional information:** The lists that were valid during the creation were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Avoid contact with the eyes and skin.

Breathing equipment:

Not required.

Protection of hands:

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 protection:

Safety glasses

(Contd. on page 4)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 1

. **Body protection:** Protective work clothing

(Contd. of page 3)

9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Color:	Dark red
Odor:	Odorless

. pH-value at 20 °C (68 °F): 6.7

. Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100 °C (> 212 °F)

. Flash point: Not applicable.

. Auto igniting: Product is not selfigniting.

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

. Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)

. Density at 20 °C (68 °F): 1.222 g/cm³ (10.198 lbs/gal)

. Solubility in / Miscibility with

Water: Fully miscible.

. Solvent content:

Organic solvents:	1.3 %
Water:	>61 %
VOC content:	1.3 %

. 9.2 Other information: No further relevant information available.

10: Stability and reactivity

. 10.1 Reactivity

. 10.2 Chemical stability

. Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

. 10.3 Possibility of hazardous reactions: No dangerous reactions known.

. 10.4 Conditions to avoid: No further relevant information available.

. 10.5 Incompatible materials: No further relevant information available.

. 10.6 Hazardous decomposition products: Irritant gases/vapors

11: Toxicological information

. 11.1 Information on toxicological effects

. Acute toxicity:

. Primary irritant effect:

. on the skin: No irritant effect.

. on the eye: No irritating effect.

. Sensitization: No sensitizing effects known.

(Contd. on page 5)

Safety Data Sheet
acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 1

(Contd. of page 4)

. Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

. Carcinogenic categories

. IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

. NTP (National Toxicology Program)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity: No further relevant information available.

. 12.2 Persistence and degradability No further relevant information available.

. 12.3 Bioaccumulative potential No further relevant information available.

. 12.4 Mobility in soil No further relevant information available.

. Additional ecological information:

. General notes:

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

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

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.

. 12.6 Other adverse effects No further relevant information available.

13: Disposal considerations

. 13.1 Waste treatment methods

. Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

. Uncleaned packagings:

. Recommendation: Disposal must be made according to official regulations.

. Recommended cleansing agent: Water, if necessary with cleansing agents.

14: Transport information

. 14.1 UN-Number

. DOT, ADR, ADN, IMDG, IATA Void

. 14.2 UN proper shipping name

. DOT, ADR, ADN, IMDG, IATA Void

(Contd. on page 6)

Safety Data Sheet
acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 1

(Contd. of page 5)

. 14.3 Transport hazard class(es)	
. DOT, ADR, ADN, IMDG, IATA	
. Class	Void
. 14.4 Packing group	
. DOT, ADR, IMDG, IATA	Void
. 14.5 Environmental hazards:	
. Marine pollutant:	No
. 14.6 Special precautions for user	Not applicable.
. 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
. UN "Model Regulation":	-

15: Regulatory information

. 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
. Sara

. Section 355 (extremely hazardous substances):

None of the ingredient is listed.

. Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

. TSCA (Toxic Substances Control Act):

7732-18-5	water
64-19-7	acetic acid

. Proposition 65

. Chemicals known to cause cancer:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

. Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

. Cancerogenity categories

. EPA (Environmental Protection Agency)

None of the ingredients is listed.

. TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

. NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

. 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

USA

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 1

(Contd. of page 6)

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.

. **Department issuing MSDS:** Department product safety

. **Contact:** e-mail: sida@tetenal.com

. **Date of preparation / last revision** 07/30/2014 / -

. **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)

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)

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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

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

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

1: Identification

- . **1.1 Product identifier**
- . **Trade name:** Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 2
- . **Article number:** 102124 BX-P2, 44593 Part 2
- . **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** Bleachfix preparation 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) 40 521 45-296
www.tetenal.com; E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:**
Poison Information Centre Berlin/Germany: +49 (0) 30 - 30686 790 (English 24hours)

2: Hazard(s) identification

- . **2.1 Classification of the substance or mixture**
- . **Classification according to Regulation (EC) No 1272/2008**
WARNING MAY CAUSES SKIN AND EYE IRRITATION
Avoid contact with eyes and skin. Use eye protection, chemicalresistant gloves and skin protection. Wash thoroughly after handling. First aid: In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes. Get medical attention. Remove material from skin and clothing.
Keep out of reach of children!



GHS05

Eye Dam. 1 H318 Causes serious eye damage.

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



Irritant

Irritating to eyes.

- . **Information concerning particular hazards for human and environment:**
The product has to be labeled due to the calculation procedure of international guidelines.
- . **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- . **2.2 Label elements**

- . **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with directives on hazardous materials.
- . **Code letter and hazard designation of product:**



Xi Irritant

- . **Risk phrases:**
Irritating to eyes.

(Contd. on page 2)

USA

Safety Data Sheet acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 2

(Contd. of page 1)

. Safety phrases:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
This material and its container must be disposed of as hazardous waste.

. Classification system:

. NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

. HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

. 2.3 Other hazards

. Results of PBT and vPvB assessment

. **PBT:** Not applicable.

. **vPvB:** Not applicable.

3: Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

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

. Dangerous components:

CAS: 7681-57-4 Index number: 016-063-00-2 Reg.nr.: 01-2119531326-45	sodium metabisulphite (sodium disulphite)	5-10%
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. Not hazardous components:

CAS: 7783-18-8 Reg.nr.: 01-2119537325-41	Ammonium thiosulphate	50-90%
---	-----------------------	--------

4: First-aid measures

. 4.1 Description of first aid measures

. **General information:** Immediately remove any clothing 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 minutes under running water. If symptoms persist, consult a doctor.

. **After swallowing:** If symptoms persist consult doctor.

. 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

. 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

USA

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2014

Reviewed on 07/29/2014

Trade name: Colortec RA-4 Prof. Print Kit RT Bleachfix BX Part 2

(Contd. of page 2)

5: Fire-fighting measures

- . **5.1 Extinguishing media**
- . **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- . **5.2 Special hazards arising from the substance or mixture**
In certain fire conditions, traces of other toxic gases cannot be excluded.
- . **5.3 Advice for firefighters**
- . **Protective equipment:** No special measures required.

6: Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures** 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).
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.

7: Handling and storage

- . **7.1 Precautions for safe handling**
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
- . **Information about protection against explosions and fires:** No special measures required.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** No special requirements.
- . **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizing agents.
- . **Further information about storage conditions:**
Keep receptacle 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: 5-25 °C
- . **7.3 Specific end use(s)** No further relevant information available.

8: Exposure controls/personal protection

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

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. 8.1 Control parameters

. Components with limit values that require monitoring at the workplace:

7681-57-4 sodium metabisulphite (sodium disulphite) (5-10%)

REL (USA) Long-term value: 5 mg/m³

TLV (USA) Long-term value: 5 mg/m³

. **Additional information:** The lists that were valid during the creation 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 contact with the eyes and skin.

. **Breathing equipment:** 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.

. Eye protection:



Tightly sealed goggles

. **Body protection:** Protective work clothing

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9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Color:	Light yellow
Odor:	Pungent

. pH-value at 20 °C (68 °F): 5.3

. Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100 °C (> 212 °F)

. Flash point: Not applicable.

. Auto igniting: Product is not selfigniting.

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

. Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)

. Density at 20 °C (68 °F): 1.364 g/cm³ (11.383 lbs/gal)

. Solubility in / Miscibility with

 Water: Fully miscible.

. Solvent content:

Organic solvents:	0.0 %
Water:	40.5 %

. 9.2 Other information: No further relevant information available.

10: Stability and reactivity

. 10.1 Reactivity

. 10.2 Chemical stability

. Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

. 10.3 Possibility of hazardous reactions: Reacts with acids, alkalis and oxidizing agents.

. 10.4 Conditions to avoid: No further relevant information available.

. 10.5 Incompatible materials: No further relevant information available.

. 10.6 Hazardous decomposition products: Irritant gases/vapors

11: Toxicological information

. 11.1 Information on toxicological effects

. Acute toxicity:

. Primary irritant effect:

. on the skin: No irritant effect.

. on the eye: Irritating effect.

. Sensitization: No sensitizing effects known.

. Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

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. Carcinogenic categories

. IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

. NTP (National Toxicology Program)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity: No further relevant information available.

. 12.2 Persistence and degradability No further relevant information available.

. 12.3 Bioaccumulative potential No further relevant information available.

. 12.4 Mobility in soil No further relevant information available.

. Additional ecological information:

. General notes:

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

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

. 12.5 Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

. 12.6 Other adverse effects No further relevant information available.

13: Disposal considerations

. 13.1 Waste treatment methods

. Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

. Uncleaned packagings:

. Recommendation: Disposal must be made according to official regulations.

. Recommended cleansing agent: Water, if necessary with cleansing agents.

14: Transport information

. 14.1 UN-Number

. DOT, ADR, ADN, IMDG, IATA Void

. 14.2 UN proper shipping name

. DOT, ADR, ADN, IMDG, IATA Void

. 14.3 Transport hazard class(es)

. DOT, ADR, ADN, IMDG, IATA
. Class Void

. 14.4 Packing group

. DOT, ADR, IMDG, IATA Void

. 14.5 Environmental hazards:

. Marine pollutant: No

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- | | |
|---|-----------------|
| . 14.6 Special precautions for user | Not applicable. |
| . 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| . UN "Model Regulation": | - |

15: Regulatory information

- . **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
. Sara

. **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

. **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

. **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

. **Proposition 65**

. **Chemicals known to cause cancer:**

None of the ingredients is listed.

. **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

. **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

. **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

. **Carcinogenicity categories**

. **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

. **TLV (Threshold Limit Value established by ACGIH)**

7681-57-4 sodium metabisulphite (sodium disulphite)

A4

. **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- . **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

. **Contact:** e-mail: sida@tetenal.com

. **Date of preparation / last revision** 07/30/2014 / -

. **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)

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)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

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

USA