TETENAL

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

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

. 1.1 Product identifier

. Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

. Article number: 100257/1.1

. Index number:

None of the ingredients is listed.

. 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

. Application of the substance / the mixture Developer for photographic use

. 1.3 Details of the supplier of the safety data sheet

. Manufacturer/Supplier:

TETENAL 1847 GmbH

Schützenwall 31-35

D-22844 Norderstedt /Germany

Tel.: +49 (0) 40 521 45-0; Fax: +49 (0)40-52145-296

www.tetenal.com; E-mail: info@tetenal.com

- . Further information obtainable from: Department product safety. E-Mail: sida@tetenal.com
- . 1.4 Emergency telephone number: Tetenal Tel.:+49(0) 40 521 45-0 (open: 8am till 4pm)

SECTION 2: Hazards identification

- . 2.1 Classification of the substance or mixture
- . Classification according to Regulation (EC) No 1272/2008

Acute Tox. 4 H302 Harmful if swallowed.

Eye Dam. 1 H318 Causes serious eye damage.

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

STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of

exposure: Oral.

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 CLP regulation.

. Hazard pictograms









GHS05

GHS07

GHS08

GHS09

. Signal word Danger

. Hazard-determining components of labelling:

diethylene glycol

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

Hazard statements

The content is not more than 125 ml. In accordance with Regulation 1272/2008 Annex I, Section 1.5.2.1, only certain labelling elements are obligatory for the packaging in this case. Therefore, the following label elements may not be on the label.

H302 Harmful if swallowed.

H318 Causes serious eve damage.

H317 May cause an allergic skin reaction.

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

(Contd. on page 2)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

(Contd. of page 1)

H411 Toxic to aquatic life with long lasting effects.

. Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands 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 / eye protection / face 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. P314 Get medical advice/attention if you feel unwell.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local regulations.

. Labelling of packages where the contents do not exceed 125 ml

. Hazard pictograms









GHS05

GHS07

GHS08

GHS09

. Signal word Danger

. Hazard-determining components of labelling:

diethylene glycol

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

. Hazard statements

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

. Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands 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.

P280 Wear protective gloves / eye protection / face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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.

P321 Specific treatment (see on this label).

P314 Get medical advice/attention if you feel unwell.

(Contd. on page 3)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

(Contd. of page 2)

P330 Rinse mouth.

P362+P364 Take off contaminated clothing and wash it before reuse. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P501 Dispose of contents/container in accordance with local regulations.

. 2.3 Other hazards

. Results of PBT and vPvB assessment

. **PBT:** Not applicable. . vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

. 3.2 Chemical characterisation: Mixtures

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

. Dangerous components:

CAS: 111-46-6 10-<25% diethylene glycol EINECS: 203-872-2 (1) Acute Tox. 4, H302

Index number: 603-140-00-6

CAS: 107-21-1 ethylene glycol 10-<25%

EINECS: 203-473-3 **STOT RE 2**, H373; **!** Acute Tox. 4, H302

Index number: 603-027-00-1 Reg.nr.: 01-2119456816-28

CAS: 25646-71-3 N-(2-(4-amino-N-ethyl-m-toluidino)ethyl)methanesulphonamide 5-10%

EINECS: 247-161-5 sesquisulphate (CD-3)

. **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.

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

. After inhalation:

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

In case of unconsciousness place patient stably in side position for transportation.

- . After skin contact: Immediately wash with water and soap and rinse thoroughly.
- . After eve contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- . After swallowing:

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Rinse mouth.

. 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)

(Contd. on page 4)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

(Contd. of page 3)

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:

Mouth respiratory protective device.

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:

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

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

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

. 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

. 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

. 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

- . Information about fire and explosion protection: No special measures required.
- . 7.2 Conditions for safe storage, including any incompatibilities
- Storage
- . Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- . Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

. Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Protect from exposure to the light.

Store under lock and key and out of the reach of children.

Recommended storage temperature: 5-30°C

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

SECTION 8: Exposure controls/personal protection

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

(Contd. on page 5)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

(Contd. of page 4)

. 8.1 Control parameters

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

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

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

WEEL (USA) Long-term value: 10 mg/m³

107-21-1 ethylene glycol (10-<25%)

WEL (Great Britain) Short-term value: 104** mg/m³, 40** ppm

Long-term value: 10* 52** mg/m³, 20** ppm

Sk *particulate **vapour

IOELV (EU) Short-term value: 104 mg/m³, 40 ppm

Long-term value: 52 mg/m³, 20 ppm

Skin

TLV (USA) Short-term value: C 100 mg/m³

Н

. 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/m³ (Worker (Arbeiter))

Long-term - systemic effects 12 mg/m³ (Consumer (Verbraucher))

Long-term- systemics effects 44 mg/m³ (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

Terrestrial compartment -soil

1.53 mg/kg dw (-)

Sewage treatment plant (Abwasserreinigungsanlagen) 199.5 mg/l (-)

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

. 8.2 Exposure controls

. Personal protective equipment:

. General protective and hygienic measures:

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

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

. Respiratory protection:

required at the appearance from fumes/vapours/aerosol. Filter ABEK

Ensure adequate ventilation

. Protection of hands:



Protective gloves

Impervious gloves

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (Contd. on page 6)

on page o

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

(Contd. of page 5)

. 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

Gove materialbreakthroug-timelayer thicknessButyl rubber:≥480 min≥0,4mmNitrile rubber:≥480 min≥0,38mmNeoprene:≥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

SECTION 9: Physical and chemical properties

- . 9.1 Information on basic physical and chemical properties
- . General Information
- . Appearance:

Form: Fluid
Colour: Light red
. Odour: Sulfurous
. Odour threshold: Not determined.

. pH-value at 20 °C: \sim 2

. Change in condition

Melting point/freezing point: Undetermined. Initial boiling point and boiling range: >100 °C

Flash point: Not applicable.
Flammability (solid, gas): Not applicable.
Decomposition temperature: Not determined.

. Auto-ignition temperature: Product is not selfigniting.

. **Explosive properties:** Product does not present an explosion hazard.

. Explosion limits:

Lower: Not determined.
Upper: Not determined.

. Vapour pressure:

. Density at 20 °C:

-1.1 g/cm³

. Relative density
. Vapour density
. Evaporation rate
Not determined.
Not determined.

(Contd. on page 7)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

		(Contd. of page 6
. Solubility in / Miscibility with		
water:	Fully miscible.	
. Partition coefficient: n-octanol/water:	Not determined.	
. Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
. Solvent content:		
Organic solvents:	24.7 %	
Water:	25-50 %	
Solids content:	0.0 %	
. 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- . 10.1 Reactivity No further relevant information available.
- . 10.2 Chemical stability
- . Thermal decomposition / conditions to be avoided: Stable at environment temperature.
- . 10.3 Possibility of hazardous reactions Reacts with acids, alkalis and oxidising agents.
- . 10.4 Conditions to avoid No further relevant information available.
- . 10.5 Incompatible materials: Under certain fire conditions, traces of other toxic gases cannot be excluded.
- . 10.6 Hazardous decomposition products:

Irritant gases/vapours

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- . 11.1 Information on toxicological effects
- . Acute toxicity

Harmful if swallowed.

. LD/LC50 values relevant for classification:

111-46-6 diethylene glycol

Oral LD50 12,565 mg/kg (rat)

107-21-1 ethylene glycol

Oral LD50 5,840 mg/kg (rat)

9,530 mg/kg (rabbit)

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

Oral LD50 >75 mg/kg (rat)

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

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

Causes serious eye damage.

. Respiratory or skin sensitisation

May cause an allergic skin reaction.

. 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:

Harmful

Irritant

(Contd. on page 8)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

(Contd. of page 7)

- . CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- . 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
- May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.
- . Aspiration hazard Based on available data, the classification criteria are not met.

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)

107-21-1 ethylene glycol

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

LC50 96 mg/l (fish: Oncorhynchus mykiss)

96 mg/l (fish: Pimephales promelas)

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

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.
- . Ecotoxical 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.

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

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

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

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- . 12.5 Results of PBT and vPvB assessment
- . **PBT:** Not applicable.
- . vPvB: Not applicable.
- . 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- . 13.1 Waste treatment methods
- . Recommendation

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

. European waste catalogue

09 01 01 water-based developer and activator solutions

- . Uncleaned packaging:
- . **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 9)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

(Contd. of page 8)

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

-	
14.1 UN-Number ADR, IMDG, IATA	UN3082
14.2 UN proper shipping name ADR	3082 ENVIRONMENTALLY HAZARDOU SUBSTANCE, LIQUID, N.O.S. (p-Phenylenediami
IMDG	derivate CD-3) ENVIRONMENTALLY HAZARDOUS SUBSTANC LIQUID, N.O.S. (p-Phenylenediamine derivate CD-3 MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANC LIQUID, N.O.S. (p-Phenylenediamine derivate CD-3)
14.3 Transport hazard class(es)	
ADR Class Label	9 (M6) Miscellaneous dangerous substances and articles
IMDG, IATA Class Label	9 Miscellaneous dangerous substances and articles.
14.4 Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards:	Product contains environmentally hazardous substance p-Phenylendiaminderivat (CD-3)
Marine pollutant:	Yes Symbol (fish and tree)
Special marking (ADR): Special marking (IATA):	Symbol (fish and tree) Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances as articles.
Hazard identification number (Kemler code): EMS Number:	90 F-A,S-F
Stowage Category 14.7 Transport in bulk according to Annex II o	A £
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	Due to special provision 375 ADR and chapter 2.10. IMDG this item does not need to be labeled as dangero goods.
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 Tunnel restriction code	3 E

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 1

(Contd. of page 9)

	(conta. or page)
. 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":	UN3082, ENVIRONMENTALLY HAZARDOUS
C	SUBSTANCE, LIQUID, N.O.S. (p-Phenylenediamine
	derivate CD-3), 9, III

SECTION 15: Regulatory information

- . 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- . Labelling according to Regulation (EC) No 1272/2008 GHS label elements
- . 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
- . 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

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

H410 Very toxic to aquatic life with long lasting effects.

. Contact: E: sida@tetenal.com

. Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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

ICAO: International Civil Aviation Organisation

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

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity - oral – Category 3 Acute Tox. 4: Acute toxicity - oral – Category 4

Eva Dam 1: Sarious and damage/and imitation Cate

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation - Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2

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

* Data compared to the previous version altered.

TETENAL

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

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

. 1.1 Product identifier

. Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 2

. Article number: 100257/1.2

. Index number:

None of the ingredients is listed.

. 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

. Application of the substance / the mixture Developer for photographic use

. 1.3 Details of the supplier of the safety data sheet

. Manufacturer/Supplier:

TETENAL 1847 GmbH

Schützenwall 31-35

D-22844 Norderstedt /Germany

Tel.: +49 (0) 40 521 45-0; Fax: +49 (0)40-52145-296

www.tetenal.com; E-mail: info@tetenal.com

- . Further information obtainable from: Department product safety. E-Mail: sida@tetenal.com
- . 1.4 Emergency telephone number: Tetenal Tel.:+49(0) 40 521 45-0 (open: 8am till 4pm)

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.

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

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

. Hazard pictograms



GHS07

- . Signal word Warning
- . Hazard statements

The content is not more than 125 ml. In accordance with Regulation 1272/2008 Annex I, Section 1.5.2.1, only certain labelling elements are obligatory for the packaging in this case. Therefore, the following label elements may not be on the label.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

. Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection.
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.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

(Contd. on page 2)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 2

(Contd. of page 1)

P337+P313 If eye irritation persists: Get medical advice/attention.

- . Labelling of packages where the contents do not exceed 125 ml
- . Hazard pictograms



- . Signal word Warning
- . Hazard statements Void
- . Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection.
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.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.

. 2.3 Other hazards

. Results of PBT and vPvB assessment

. **PBT:** Not applicable. . **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

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

. Dangerous components:

CAS: 584-08-7 potassium carbonate 10-<25%

Reg.nr.: 01-2119532646-36

CAS: 133986-51-3 2,2'-(Hydroxylimino)bisethanesulphonicacid, disodium salt (DSEHA) 5-10%

Reg.nr.: 01-0000015682-69

CAS: 111-42-2 diethanolamine 1-5%

Index number: 603-071-00-1 Skin Irrit. 2, H315

Reg.nr.: 01-2119488930-28

CAS: 140-01-2 Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5) <1%

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.

(Contd. on page 3)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 2

(Contd. of page 2)

. 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: 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:

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).

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.
- . 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.

Protect from exposure to the light.

Store under lock and key and out of the reach of children.

Recommended storage temperature: 5-30°C

(Contd. on page 4)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 2

(Contd. of page 3)

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

SECTION 8: Exposure controls/personal protection

- . Additional information about design of technical facilities: No further data; see item 7.
- . 8.1 Control parameters
- . Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- . **Additional information:** The lists valid during the making were used as basis.
- . 8.2 Exposure controls
- . Personal protective equipment:
- . General protective and hygienic measures:

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

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

- . Respiratory protection: 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

Gove materialbreakthroug-timelayer thicknessButyl rubber:≥480 min≥0,4mmNitrile rubber:≥480 min≥0,38mmNeoprene:≥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.

. Eve protection:



Tightly sealed goggles

. Body protection: Protective work clothing

_ FN

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 2

(Contd. of page 4)

9.1 Information on basic physical and c	hemical properties
General Information Appearance:	
Form:	Fluid
Colour:	Dark orange colour
Odour:	Odourless
Odour threshold:	Not determined.
pH-value at 20 °C:	~11
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range	
Flash point:	Not applicable.
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not determined.
Density at 20 °C:	$\sim 1.3 \text{ g/cm}^3$
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	P. II
water:	Fully miscible.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents: Water:	1.6 % 50-90 %

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

(Contd. on page 6)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 2

Carbon monoxide and carbon dioxide

(Contd. of page 5)

SECTION 11: Toxicological information

- . 11.1 Information on toxicological effects
- . 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 \geq 2,000 mg/kg (rat)

133986-51-3 2,2'-(Hydroxylimino)bisethanesulphonicacid, disodium salt (DSEHA)

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

111-42-2 diethanolamine

Oral LD50 1,600 mg/kg (rat)

Dermal LD50 12,200 mg/kg (rabbit)

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

Oral LD50 \geq 2,000 mg/kg (rat)

- . Primary irritant effect:
- . 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.
- . Acute effects (acute toxicity, irritation and corrosivity)

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

- . CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- . 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.

SECTION 12: Ecological information

- . 12.1 Toxicity
- . Aquatic toxicity:

111-42-2 diethanolamine

LC50 133-140 mg/l (daphnia magna (Water flea))

500-<5,000 mg/l (fish)

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.

(Contd. on page 7)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Colour Developer CD Part 2

(Contd. of page 6)

- . 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 (German Regulation) (Self-assessment); slightly hazardous for water

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

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.

- . 12.5 Results of PBT and vPvB assessment
- . PBT: Not applicable.
- . vPvB: Not applicable.
- . 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- . 13.1 Waste treatment methods
- . Recommendation

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

. European waste catalogue

09 01 01 water-based developer and activator solutions

- . Uncleaned packaging:
- . Recommendation: Disposal must be made according to official regulations.
- . Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport informa	tion	
. 14.1 UN-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 Transport in bulk according to Ann Marpol and the IBC Code	nex II of Not applicable.	
. UN "Model Regulation":	Void	

SECTION 15: Regulatory information

- . 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- . Labelling according to Regulation (EC) No 1272/2008 GHS label elements
- . REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

(Contd. on page 8)

Printing date 02.03.2020 Revision: 02.03.2020 version no: 1

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm **Colour Developer CD Part 2**

(Contd. of page 7)

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

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to the kidneys, the liver and the blood through prolonged or repeated exposure. Route of exposure: Oral.

. Department issuing SDS: Department product safety

Contact: E: sida@tetenal.com

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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

ICAO: International Civil Aviation Organisation

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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - oral - Category 4

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

. * Data compared to the previous version altered.

TETENAL

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

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

. 1.1 Product identifier

. Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm

Bleach Fix BX Part 1

. Article number: 100257/2.1

. Index number:

None of the ingredients is listed.

. 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

. Application of the substance / the mixture Bleachfix preparation 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: Tetenal Tel.:+49(0) 40 521 45-0 (open: 8am till 4pm)

SECTION 2: Hazards identification

- . 2.1 Classification of the substance or mixture
- . Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

- . 2.2 Label elements
- . Labelling according to Regulation (EC) No 1272/2008 Void
- . Hazard pictograms Void
- . Signal word Void
- . Hazard statements Void
- . 2.3 Other hazards
- . Results of PBT and vPvB assessment
- . **PBT:** Not applicable.
- . vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

. 3.2 Chemical characterisation: Mixtures

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

. Dangerous components: Void

. Not hazardous components:

CAS: 68413-60-5 Ethylenediaminetetraacetic Acid, Ferric Ammonium Complex 25-50%

EINECS: 270-232-7

Reg.nr.: 01-2119496227-29-0001

. **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; consult doctor in case of complaints.
- . After skin contact: Immediately rinse with water.
- . After eye contact: Rinse opened eye for several (15 min) under running water.

(Contd. on page 2)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Bleach Fix BX Part 1

(Contd. of page 1)

. 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.

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 No further relevant information available.
- . 5.3 Advice for firefighters
- . Protective equipment: No special measures required.

SECTION 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).

. **6.4 Reference to other sections** No dangerous substances are released.

SECTION 7: Handling and storage

- . 7.1 Precautions for safe handling No special measures required.
- . 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: No special requirements.
- . Information about storage in one common storage facility: Store away from foodstuffs.
- . Further information about storage conditions: Recommended storage temperature: 5-30°C
- . 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- . Additional information about design of technical facilities: No further data; see item 7.
- . 8.1 Control parameters
- . Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- . Additional information: The lists valid during the making were used as basis.
- . 8.2 Exposure controls
- . Personal protective equipment:
- . General protective and hygienic measures: Avoid contact with the skin.
- . Respiratory protection: Not required.
- . Protection of hands:

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

(Contd. on page 3)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Bleach Fix BX Part 1

(Contd. of page 2)

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

. Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene 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.

. Penetration time of glove material

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

. Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

SECTION () I my sieur und enem	
. 9.1 Information on basic physical and c . General Information	hemical properties
. Appearance:	
Form:	Fluid
Colour:	red brown
. Odour:	Odourless
. pH-value at 20 °C:	~7
. Change in condition Melting point/freezing point: Initial boiling point and boiling range	Undetermined. :> 100 °C
. Flash point:	Not applicable.
. Auto-ignition temperature:	Product is not selfigniting.
. Explosive properties:	Product does not present an explosion hazard.
. Vapour pressure:	Not determined.
. Density at 20 °C:	~1.2 g/cm³
. Solubility in / Miscibility with water:	Fully miscible.
. Solvent content: Water: . 9.2 Other information	50-90 % No further relevant information available.

SECTION 10: Stability and reactivity

- . 10.1 Reactivity No further relevant information available.
- . 10.2 Chemical stability
- . Thermal decomposition / conditions to be avoided: 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/vapours

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Bleach Fix BX Part 1

(Contd. of page 3)

SECTION 11: Toxicological information

- . 11.1 Information on toxicological effects
- . Acute toxicity Based on available data, the classification criteria are not met.
- . Primary irritant effect:
- . Skin corrosion/irritation Based on available data, the classification criteria are not met.
- . Serious eye damage/irritation Based on available data, the classification criteria are not met.
- . Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- . CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- . 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.

SECTION 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:

Water hazard class 2 (German Regulation) (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.

SECTION 13: Disposal considerations

- . 13.1 Waste treatment methods
- . Recommendation

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

. European waste catalogue

09 01 05 bleach solutions and bleach fixer solutions

- . Uncleaned packaging:
- . Recommendation: Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- . 14.1 UN-Number
- . ADR, ADN, IMDG, IATA Void
- . 14.2 UN proper shipping name
- . ADR, ADN, IMDG, IATA Void

(Contd. on page 5)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Bleach Fix BX Part 1

		(Contd. of page 4
. 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 Transport in bulk according to Ann	ex II of	
Marpol and the IBC Code	Not applicable.	
. UN "Model Regulation":	Void	

SECTION 15: Regulatory information

. 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.

- . Contact: E: sida@tetenal.com
- . Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

. * Data compared to the previous version altered.

-EN

TETENAL

Printing date 02.03.2020 version no: 2 Revision: 02.03.2020

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

. 1.1 Product identifier

. Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm

Bleach Fix BX Part 2

. Article number: 100257/2.2

. Index number:

None of the ingredients is listed.

. 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

. Application of the substance / the mixture Bleachfix preparation 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: Tetenal Tel.:+49(0) 40 521 45-0 (open: 8am till 4pm)

SECTION 2: Hazards identification

- . 2.1 Classification of the substance or mixture
- . Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

- . 2.2 Label elements
- . Labelling according to Regulation (EC) No 1272/2008 Void
- . Hazard pictograms Void
- . Signal word Void
- . Hazard statements Void
- . Additional information:

EUH031 Contact with acids liberates toxic gas.

- . Labelling of packages where the contents do not exceed 125 ml
- . Hazard pictograms Void
- . Signal word Void
- . Hazard statements Void
- . 2.3 Other hazards
- . Results of PBT and vPvB assessment
- . **PBT:** Not applicable.
- . vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- . 3.2 Chemical characterisation: Mixtures
- . Description: Mixture: consisting of the following components.
- . Dangerous components:

CAS: 7631-90-5 sodium bisulphite

Index number: 016-064-00-8

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

5-10%

Printing date 02.03.2020 version no: 2 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Bleach Fix BX Part 2

(Contd. of page 1)

SECTION 4: First aid measures

- . 4.1 Description of first aid measures
- . After inhalation: Supply fresh air; consult doctor in case of complaints.
- . After skin contact: Immediately rinse with water.
- . After eye contact: Rinse opened eye for several (15 min) under running water.
- . After swallowing:

If symptoms persist consult doctor.

Rinse out mouth and then drink plenty of water.

. 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 (NOx)

Sulphur dioxide (SO2)

- . 5.3 Advice for firefighters
- . Protective equipment: No special measures required.

SECTION 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.

SECTION 7: Handling and storage

- . 7.1 Precautions for safe handling No special measures required.
- . 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: 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: 5-30°C

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

EN

Printing date 02.03.2020 version no: 2 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Bleach Fix BX Part 2

(Contd. of page 2)

SECTION 8: Exposure controls/personal protection

- . Additional information about design of technical facilities: No further data; see item 7.
- . 8.1 Control parameters
- . Ingredients with limit values that require monitoring at the workplace:

7681-57-4 sodium metabisulphite (1-5%)

WEL Long-term value: 5 mg/m³

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

- . 8.2 Exposure controls
- . Personal protective equipment:
- . General protective and hygienic measures:

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

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

- . Respiratory protection: Ensure adequate ventilation
- . 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

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

. **Body protection:** Protective work clothing

	SECTION 9:	Physical	and chemi	ical propertie	S
--	-------------------	----------	-----------	----------------	---

. 9.1 Information on basic physical and chemical properties . General Information . Appearance:				
Form:	Fluid			
Colour:	Light yellow			
. Odour:	Sulfurous			
. pH-value at 20 °C:	~5			
. Change in condition Melting point/freezing point: Initial boiling point and boiling ran	Undetermined. nge: > 100 °C			
. Flash point:	Not applicable.			
. Auto-ignition temperature:	Product is not selfigniting.			
. Explosive properties:	Product does not present an explosion hazard.			
. Vapour pressure:	Not determined.			
. Density at 20 °C:	~1.3 g/cm³			

(Contd. on page 4)

Printing date 02.03.2020 version no: 2 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Bleach Fix BX Part 2

		(Contd. of page 3
. Solubility in / Miscibility with		
water:	Fully miscible.	
. Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
. Solvent content:		
Organic solvents:	0.4 %	
Water:	25-50 %	
Solids content:	0.0 %	
. 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- . 10.1 Reactivity No further relevant information available.
- . 10.2 Chemical stability
- . Thermal decomposition / conditions to be avoided: 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/vapours

SECTION 11: Toxicological information

- . 11.1 Information on toxicological effects
- . Acute toxicity Based on available data, the classification criteria are not met.
- . LD/LC50 values relevant for classification:

7631-90-5 sodium bisulphite

Oral LD50 1,540 mg/kg (rat)

- . Primary irritant effect:
- . Skin corrosion/irritation Based on available data, the classification criteria are not met.
- . Serious eye damage/irritation Based on available data, the classification criteria are not met.
- . Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- . CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- . 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.

SECTION 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 (German Regulation) (Self-assessment): slightly hazardous for water

(Contd. on page 5)

Printing date 02.03.2020 version no: 2 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Bleach Fix BX Part 2

(Contd. of page 4)

- . 12.5 Results of PBT and vPvB assessment
- . **PBT:** Not applicable.
- . vPvB: Not applicable.
- . 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- . 13.1 Waste treatment methods
- . Recommendation

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

European waste catalogue

09 01 05 bleach solutions and bleach fixer 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 informa	tion	
. 14.1 UN-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 Transport in bulk according to Ann Marpol and the IBC Code	ex II of Not applicable.	
. UN "Model Regulation":	Void	

SECTION 15: Regulatory information

- . 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- . REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 65
- . 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

H302 Harmful if swallowed. . **Contact:** E: sida@tetenal.com

(Contd. on page 6)

Printing date 02.03.2020 version no: 2 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm **Bleach Fix BX Part 2**

(Contd. of page 5)

. Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Acute Tox. 4: Acute toxicity - oral – Category 4

. * Data compared to the previous version altered.

TETENAL

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

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

. 1.1 Product identifier

. Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm odourless Stop Bath with indikator

. **Article number:** 100257/3

. Index number:

None of the ingredients is listed.

. 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

. Application of the substance / the mixture Stabilizer bath 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: Tetenal Tel.:+49(0) 40 521 45-0 (open: 8am till 4pm)

SECTION 2: Hazards identification

- . 2.1 Classification of the substance or mixture
- . Classification according to Regulation (EC) No 1272/2008

Eye Irrit. 2 H319 Causes serious eye irritation.

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

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

. Hazard pictograms



- . Signal word Warning
- . Hazard statements

The content is not more than 125 ml. In accordance with Regulation 1272/2008 Annex I, Section 1.5.2.1, only certain labelling elements are obligatory for the packaging in this case. Therefore, the following label elements may not be on the label.

H319 Causes serious eye irritation.

. Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash hands thoroughly after handling. P280 Wear eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

(Contd. on page 2)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm odourless Stop Bath with indikator

(Contd. of page 1)

- . Labelling of packages where the contents do not exceed 125 ml
- . Hazard pictograms



- . Signal word Warning
- . Hazard statements Void
- . Precautionary statements
- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- . 2.3 Other hazards
- . Results of PBT and vPvB assessment
- . **PBT:** Not applicable.
- . vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- . 3.2 Chemical characterisation: Mixtures
- . **Description:** Mixture of substances listed below and with nonhazardous additions.
- . Dangerous components:

CAS: 5949-29-1 Citric acid mono hydrate EINECS: 201-069-1 (anhydrat: CAS 77-92-9)

25-50%

() Eye Irrit. 2, H319

. 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: Take affected persons out into the fresh air.
- . 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.

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.

(Contd. on page 3)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm odourless Stop Bath with indikator

(Contd. of page 2)

. 5.3 Advice for firefighters

. **Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

. 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

. 6.2 Environmental precautions:

Dilute with plenty of water.

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

. 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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.
- . **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

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

SECTION 8: Exposure controls/personal protection

- . Additional information about design of technical facilities: No further data; see item 7.
- . 8.1 Control parameters
- . Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- . Additional information: The lists valid during the making were used as basis.
- . 8.2 Exposure controls
- . Personal protective equipment:
- . General protective and hygienic measures:

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

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

(Contd. on page 4)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm odourless Stop Bath with indikator

(Contd. of page 3)

Avoid contact with the eyes and skin.

- . **Respiratory protection:** Ensure adequate ventilation
- . Protection of hands:

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

Gove material breakthroug-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

SECTION 9: Physical and chemical properties

. 9.1	iniorm	atior	i on b	asic pn	ysicai and	i cnemicai	properties

. General Information

. Appearance: Form: Fluid Colour: Orange . Odour: Characteristic Not determined. . Odour threshold:

. pH-value at 20 °C: >2

. Change in condition

Melting point/freezing point: Undetermined. Initial boiling point and boiling range: >100 °C

Not applicable. . Flash point: . Flammability (solid, gas): Not applicable. Not determined. . Decomposition temperature: . Auto-ignition temperature: Product is not selfigniting. . Explosive properties: Product does not present an explosion hazard. . Explosion limits:

Lower: Not determined. Upper: Not determined.

. Vapour pressure: Not determined.

(Contd. on page 5)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm odourless Stop Bath with indikator

		(Contd. of page
Density at 20 °C:	~1.1 g/cm³	
. Relative density	Not determined.	
. Vapour density	Not determined.	
. Evaporation rate	Not determined.	
. Solubility in / Miscibility with		
water:	Fully miscible.	
. Partition coefficient: n-octanol/water:	Not determined.	
. Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
. Solvent content:		
Water:	50-90 %	
VOC (EC)	0.00 %	
Solids content:	0.0 %	
9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- . 10.1 Reactivity No further relevant information available.
- . 10.2 Chemical stability
- . Thermal decomposition / conditions to be avoided: Stable at environment temperature.
- . 10.3 Possibility of hazardous reactions Reacts with acids, alkalis and oxidising agents.
- . 10.4 Conditions to avoid No further relevant information available.
- . 10.5 Incompatible materials: Under certain fire conditions, traces of other toxic gases cannot be excluded.
- . 10.6 Hazardous decomposition products:

Irritant gases/vapours

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- . 11.1 Information on toxicological effects
- . Acute toxicity Based on available data, the classification criteria are not met.
- . LD/LC50 values relevant for classification:

5949-29-1 Citric acid mono hydrate

(anhydrat: CAS 77-92-9)

Oral LD50 5,400 mg/kg (mouse) (OECD- 401)

11,700 mg/kg (rat) (OECD- 401)

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

Causes serious eye irritation.

- . Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- . Acute effects (acute toxicity, irritation and corrosivity)

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

- . CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- . 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.

(Contd. on page 6)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm odourless Stop Bath with indikator

(Contd. of page 5)

- . STOT-repeated exposure Based on available data, the classification criteria are not met.
- . **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- . 12.1 Toxicity
- . Aquatic toxicity: 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 (German Regulation) (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.

SECTION 13: Disposal considerations

- . 13.1 Waste treatment methods
- . Recommendation

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

. European waste catalogue

09 01 99 wastes not otherwise specified

- . Uncleaned packaging:
- . **Recommendation:** Disposal must be made according to official regulations.
- . Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport informa	ation	
. 14.1 UN-Number		
. ADR, ADN, IMDG, IATA	Void	
. 14.2 UN proper shipping name		
. ADR	Void	
. 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 Transport in bulk according to Ann	nex II of	
Marpol and the IBC Code	Not applicable.	

(Contd. on page 7)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm odourless Stop Bath with indikator

(Contd. of page 6)

. UN "Model Regulation":

Void

SECTION 15: Regulatory information

- . 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- . Labelling according to Regulation (EC) No 1272/2008 GHS label elements
- . REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- . 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

H319 Causes serious eye irritation.

. Contact: E: sida@tetenal.com

. Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

. * Data compared to the previous version altered.

- EN

TETENAL

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

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

. 1.1 Product identifier

. Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm

Stabilizer STAB

. **Article number:** 100257/4

. Index number:

None of the ingredients is listed.

. 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

. Application of the substance / the mixture Stabilizer bath 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: Tetenal Tel.:+49(0) 40 521 45-0 (open: 8am till 4pm)

SECTION 2: Hazards identification

- . 2.1 Classification of the substance or mixture
- . Classification according to Regulation (EC) No 1272/2008

The product is not classified, according to the CLP regulation.

- . 2.2 Label elements
- . Labelling according to Regulation (EC) No 1272/2008 Void
- . Hazard pictograms Void
- . Signal word Void
- . Hazard statements

The content is not more than 125 ml. In accordance with Regulation 1272/2008 Annex I, Section 1.5.2.1, only certain labelling elements are obligatory for the packaging in this case. Therefore, the following label elements may not be on the label.

. Additional information:

Contains 1,2-benzisothiazol-3(2H)-one, hexamethylenetetramine. May produce an allergic reaction.

- . Labelling of packages where the contents do not exceed 125 $\mbox{\it ml}$
- . Hazard pictograms Void
- . Signal word Void
- . Hazard statements Void
- . 2.3 Other hazards
- . Results of PBT and vPvB assessment
- . **PBT:** Not applicable.
- . vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- . 3.2 Chemical characterisation: Mixtures
- . **Description:** Mixture: consisting of the following components.
- . Dangerous components:

CAS: 100-97-0 hexamethylenetetramine EINECS: 202-905-8 Flam Sol 2, H228:

Flam. Sol. 2, H228; Skin Sens. 1, H317

Index number: 612-101-00-2 Reg.nr.: 01-2119474895-20

(Contd. on page 2)

<1%

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Stabilizer STAB

(Contd. of page 1)

CAS: 2634-33-5 1,2-benzisothiazol-3(2H)-one <1%

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

SECTION 4: First aid measures

- . 4.1 Description of first aid measures
- . **General information:** Take affected persons out into the fresh air.
- . After inhalation:

Supply fresh air; consult doctor in case of complaints.

Supply fresh air.

- . After skin contact: Immediately rinse with water.
- . After eye contact: Rinse opened eye for several (15 min) under running water.
- . **After swallowing:** Rinse out mouth and then drink plenty of water.
- . 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 No further relevant information available.
- . 5.3 Advice for firefighters
- . Protective equipment: No special measures required.

SECTION 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).

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 No special measures required.
- . Information about fire and explosion protection: No special measures required.
- . 7.2 Conditions for safe storage, including any incompatibilities
- . 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 with access restricted to technical experts or their assistants only.

Store under lock and key and out of the reach of children.

(Contd. on page 3)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Stabilizer STAB

(Contd. of page 2)

Recommended storage temperature: 5-30°C

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

SECTION 8: Exposure controls/personal protection

- . Additional information about design of technical facilities: No further data; see item 7.
- . 8.1 Control parameters
- . Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- . Additional information: The lists valid during the making were used as basis.
- . 8.2 Exposure controls
- . Personal protective equipment:
- . General protective and hygienic measures:

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

Avoid contact with the eyes and skin.

. Respiratory protection:

Not required.

Ensure adequate ventilation

. 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.

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

Penetration time of glove material

Gove material breakthroug-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

. **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- . 9.1 Information on basic physical and chemical properties
- . General Information

. Appearance:

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

. pH-value at 20 °C: ~8

. Change in condition

Melting point/freezing point: 0 °C

Initial boiling point and boiling range: Undetermined.

. Flash point: Not applicable.

(Contd. on page 4)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Stabilizer STAB

	(Contd. of page	
. Flammability (solid, gas):	Not applicable.	
. Decomposition temperature:	Not determined.	
. Auto-ignition temperature:	Not determined.	
. Explosive properties:	Product does not present an explosion hazard.	
. Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
. Vapour pressure at 20 °C:	23 hPa	
. Density at 20 °C:	~1 g/cm³	
. Relative density	Not determined.	
. Vapour density	Not determined.	
. Evaporation rate	Not determined.	
. Solubility in / Miscibility with		
water:	Fully miscible.	
. Partition coefficient: n-octanol/water:	Not determined.	
. Viscosity:		
Dynamic at 20 °C:	0.952 mPas	
Kinematic:	Not determined.	
. Solvent content:		
Water:	98-100 %	
VOC (EC)	0.00 %	
Solids content:	0.0 %	
. 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- . 10.1 Reactivity No further relevant information available.
- . 10.2 Chemical stability
- . Thermal decomposition / conditions to be avoided: Stable at environment temperature.
- . 10.3 Possibility of hazardous reactions 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: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- . 11.1 Information on toxicological effects
- . Acute toxicity Based on available data, the classification criteria are not met.
- . LD/LC50 values relevant for classification:

100-97-0 hexamethylenetetramine

Oral LD50 9,200 mg/kg (rat)

- . Primary irritant effect:
- . Skin corrosion/irritation Based on available data, the classification criteria are not met.
- . Serious eye damage/irritation Based on available data, the classification criteria are not met.
- . Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- . Acute effects (acute toxicity, irritation and corrosivity)

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

(Contd. on page 5)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Stabilizer STAB

(Contd. of page 4)

The substance is not subject to classification according to the latest version of the EU lists.

- . CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- . 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.

SECTION 12: Ecological information

- . 12.1 Toxicity
- . Aquatic toxicity:

100-97-0 hexamethylenetetramine

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

LC50 96 mg/l (fish: Pimephales promelas)

2634-33-5 1,2-benzisothiazol-3(2H)-one

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

LC50 96 mg/l (rbf)

- . 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 (German Regulation) (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.

SECTION 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.

. European waste catalogue

09 00 00 WASTES FROM THE PHOTOGRAPHIC INDUSTRY

09 01 00 wastes from the photographic industry

09 01 99 wastes not otherwise specified

- . Uncleaned packaging:
- . **Recommendation:** Disposal must be made according to official regulations.
- . **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- . 14.1 UN-Number
- . ADR, ADN, IMDG, IATA

Void

(Contd. on page 6)

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm Stabilizer STAB

		(Contd. of page
. 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 Transport in bulk according to Ann Marpol and the IBC Code	ex II of Not applicable.	
. UN "Model Regulation":	Void	

SECTION 15: Regulatory information

- . 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- . Labelling according to Regulation (EC) No 1272/2008 GHS label elements
- . Directive 2012/18/EU
- . Named dangerous substances ANNEX I Substance is not listed.
- . National regulations:
- . Regulation (EC) No 648/2004 on detergents / Labelling for contents

non-ionic surfactants

. **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

H228 Flammable solid.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

. Contact: E: sida@tetenal.com

. Abbreviations and acronyms:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Sol. 2: Flammable solids - Category 2

(Contd. on page 7)

<5%

Page 7/7

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

Printing date 02.03.2020 version no: 1 Revision: 02.03.2020

Trade name: Magic-Box RA-4 Developer for 23 sheets 18 x 24 cm **Stabilizer STAB**

(Contd. of page 6)

Acute Tox. 4: Acute toxicity - oral – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

. * Data compared to the previous version altered.