

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

1.1 Product identifier

Trade name: **Magic-Box C-41 Developer for 1 color negative film**
Colour Developer CD Part 1

Article number: 100255/1.1

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

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

Carc. 2 H351 Suspected of causing cancer.

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 GHS08

Signal word Warning

Hazard-determining components of labelling:

bis(hydroxylammonium) sulfate

Hazard statements

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

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.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty of water.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

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P405 Store locked up.
P501 Dispose of contents/container in accordance with local regulations.

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

. **Hazard pictograms**



GHS07 GHS08

. **Signal word** Warning

. **Hazard-determining components of labelling:**

bis(hydroxylammonium) sulfate

. **Hazard statements**

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

. **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.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P405 Store locked up.

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: 10039-54-0 bis(hydroxylammonium) sulfate 1-5%

EINECS: 233-118-8 ⚠ Carc. 2, H351; STOT RE 2, H373; ⚠ Met. Corr. 1, H290; ⚠ Aquatic

Index number: 612-123-00-2 Acute 1, H400; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2,

Reg.nr.: 01-2119485971-25 H315; Eye Irrit. 2, H319; Skin Sens. 1, H317

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

SECTION 4: First aid measures

. **4.1 Description of first aid measures**

. **General information:** Immediately remove any clothing/shoes soiled by the product.

. **After inhalation:**

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

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- In case of unconsciousness place patient stably in side position for transportation.
- . **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- . **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- . **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.
- . **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- . **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- . **5.1 Extinguishing media**
- . **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- . **5.2 Special hazards arising from the substance or mixture**
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
Sulphur dioxide (SO₂)
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- . **5.3 Advice for firefighters**
- . **Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
- . **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).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- . **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- . **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- . **Information about fire - and explosion protection:** 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.

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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.

Avoid contact with the eyes and skin.

. **Respiratory protection:**

Not necessary if room is well-ventilated.

No personal respiratory protection required. In case of insufficient ventilation, excess of workplace limits, excessive odor or dusts, fibers and fumes, use self-contained breathing apparatus or breathing apparatus with filter type P2 or P3 according to EN 143.

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

Ensure adequate ventilation

. **Protection of hands:**



Protective gloves

Impervious gloves

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

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

. **Material of gloves**

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

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

. **Penetration time of glove material**

Glove material	breakthrough-time	layer thickness
Butyl rubber:	≥480 min	≥0,4mm
Nitrile rubber:	≥480 min	≥0,38mm
Neoprene:	≥240 min	≥0,65mm

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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. 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:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.

. pH-value at 20 °C: ~3.6**. Change in condition**

Melting point/freezing point:	0 °C
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 at 20 °C: 23 hPa

Density at 20 °C:	~1 g/cm ³
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 %**Solids content:** 0.0 %**. 9.2 Other information** No further relevant information available.

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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:**
- 10039-54-0 bis(hydroxylammonium) sulfate**
- Oral LD50 642-842 mg/kg (rat)
- Dermal LD50 1,500-2,000 mg/kg (rabbit)
- . **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**
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:
Irritant
- . **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- . **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- . **Carcinogenicity**
Suspected of causing cancer.
- . **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:**
- 10039-54-0 bis(hydroxylammonium) sulfate**
- EC50 48 mg/l (daphnia magna (Water flea))
- LC50 96 mg/l (fathead minnow (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.
- . **Additional ecological information:**
- . **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

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- . **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:**
Dispose of packaging according to regulations on the disposal of packagings.
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 | Void |
| . ADR, ADN, IMDG, IATA | Void |
| . 14.2 UN proper shipping name | Void |
| . ADR | Void |
| . ADN, IMDG, IATA | Void |
| . 14.3 Transport hazard class(es) | Void |
| . ADR, ADN, IMDG, IATA | Void |
| . Class | Void |
| . 14.4 Packing group | Void |
| . ADR, IMDG, IATA | Void |
| . 14.5 Environmental hazards: | No |
| . Marine pollutant: | No |
| . 14.6 Special precautions for user | Not applicable. |
| . 14.7 Transport in bulk according to Annex II of
Marpol and the IBC Code | 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, 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.

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. Relevant phrases

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to the spleen and the blood tissue through prolonged or repeated exposure. Route of exposure: Oral.
- H400 Very toxic to aquatic life.

. 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Met. Corr.1: Corrosive to metals – Category 1
- Acute Tox. 4: Acute toxicity - oral – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- Carc. 2: Carcinogenicity – Category 2
- STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
- Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

. * Data compared to the previous version altered.

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

1.1 Product identifier

Trade name: **Magic-Box C-41 Developer for 1 color negative film**
Colour Developer CD Part 2

Article number: 100255/1.2

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 Sens. 1 H317 May cause an allergic skin reaction.

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

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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

Hazard pictograms



GHS07

Signal word Warning

Hazard-determining components of labelling:

(4-ammonio-m-tolyl)ethyl(2-hydroxyethyl)ammonium sulphate (CD-4)

Hazard statements

H317 May cause an allergic skin reaction.

H412 Harmful 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.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P321 Specific treatment (see on this label).

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

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

. **Hazard pictograms**



GHS07

. **Signal word** Warning

. **Hazard-determining components of labelling:**

(4-ammonio-m-tolyl)ethyl(2-hydroxyethyl)ammonium sulphate (CD-4)

. **Hazard statements**

H317 May cause an allergic skin reaction.

H412 Harmful 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.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P321 Specific treatment (see on this label).

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: 25646-77-9 (4-ammonio-m-tolyl)ethyl(2-hydroxyethyl)ammonium sulphate (CD-4) 1-5%

EINECS: 247-162-0  Acute Tox. 3, H301;  STOT RE 2, H373;  Aquatic Acute 1,

Index number: 612-133-00-7 H400; Aquatic Chronic 1, H410;  Skin Sens. 1, H317

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

SECTION 4: First aid measures

. **4.1 Description of first aid measures**

. **General information:** Immediately remove any clothing/shoes soiled by the product.

. **After inhalation:**

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

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

. **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

. **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

. **After swallowing:** Call for a doctor immediately.

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

No further relevant information available.

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- 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 (NO_x)
 Carbon monoxide (CO)
 Sulphur dioxide (SO₂)
 Under certain fire conditions, traces of other toxic gases cannot be excluded.
- 5.3 Advice for firefighters**
Protective equipment: Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
 Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation
- 6.2 Environmental precautions:**
 Inform respective authorities in case of seepage into water course or sewage system.
 Dilute with plenty of water.
 Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:**
 Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Ensure adequate ventilation.
- 6.4 Reference to other sections**
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**
 Ensure good ventilation/exhaustion at the workplace.
 Prevent formation of aerosols.
- Information about fire - and explosion protection:** The product is not flammable.
- 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:**
 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.

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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.

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

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

. **Respiratory protection:**

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

Ensure adequate ventilation

. **Protection of hands:**



Protective gloves

Impervious gloves

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

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

. **Material of gloves**

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

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene gloves

. **Penetration time of glove material**

Glove material	breakthrough-time	layer thickness
Butyl rubber:	≥480 min	≥0,4mm
Nitrile rubber:	≥480 min	≥0,38mm
Neoprene:	≥240 min	≥0,65mm

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

. **Eye protection:**



Tightly sealed goggles

. **Body protection:** Protective work clothing

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SECTION 9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

. Form:	Fluid
. Colour:	Light yellow
. Odour:	to sulfur dioxide
. Odour threshold:	Not determined.

. pH-value at 20 °C: ~4.3

. 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 at 20 °C: 23 hPa

. Density at 20 °C:	~1 g/cm ³
. 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: 90-98 %

. 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

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Carbon monoxide and carbon dioxide

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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:

25646-77-9 (4-ammonio-m-tolyl)ethyl(2-hydroxyethyl)ammonium sulphate (CD-4)

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

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:

Irritant

CMR effects (carcinogenicity, 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:

25646-77-9 (4-ammonio-m-tolyl)ethyl(2-hydroxyethyl)ammonium sulphate (CD-4)

LC50 96 mg/l (daphnia magna (Water flea))

1-96 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.

Ecotoxicological effects:

Remark: Harmful to 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 2 (German Regulation) (Self-assessment): hazardous for water

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

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

Harmful to aquatic organisms

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects No further relevant information available.

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Colour Developer CD Part 2**

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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 information

- | | |
|--|-----------------|
| . 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: | Not applicable. |
| . 14.6 Special precautions for user | Not applicable. |
| . 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | 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**
- . **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.
H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
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)

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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. 3: Acute toxicity - oral – Category 3

Skin Sens. 1: Skin sensitisation – Category 1

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

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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

EN

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

1.1 Product identifier

Trade name: **Magic-Box C-41 Developer for 1 color negative film**
Coulour Developer CD-Part 3

Article number: 100255/1.3

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 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.

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

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



GHS07

- . **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: 584-08-7	potassium carbonate	10-<25%
EINECS: 209-529-3	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	
Reg.nr.: 01-2119532646-36		
CAS: 140-01-2	Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5)	1-5%
EINECS: 205-391-3	⚠ STOT RE 2, H373; ⚠ Acute Tox. 4, H332	
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 skin contact:** Immediately rinse with water.
- . **After eye contact:** Rinse opened eye for several minutes under running water. Then 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)

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- . **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** 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:**
 - 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.
- . **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.
 - Wash hands before breaks and at the end of work.
 - 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

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. Material of gloves

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

Butyl rubber, BR
 Nitrile rubber, NBR
 Neoprene gloves

. Penetration time of glove material

Glove material	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: Goggles recommended during refilling**. 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:	Yellow
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:	Undetermined.

. 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:** ~1.23 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.

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Kinematic:	Not determined.
Solvent content:	
Water:	50-90 %
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:**
 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:**
- 584-08-7 potassium carbonate**
 Oral LD50 >2,000 mg/kg (rat)
- 140-01-2 Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5)**
 Oral LD50 >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.
- . **CMR effects (carcinogenicity, 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:**
- 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))

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- . **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 01* water-based developer and activator solutions
- . **Uncleaned packaging:**
- . **Recommendation:** Disposal must be made according to official regulations.
- . **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

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

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. **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**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

. **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)

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 - inhalation – Category 4

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

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

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

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

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

EN

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

1.1 Product identifier

Trade name: **Magic-Box C-41 Developer for 1 color negative film
Bleach Fix BX Part 1**

Article number: 100255/2.1

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

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 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.

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**Trade name: Magic-Box C-41 Developer for 1 color negative film
Bleach Fix BX Part 1**

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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.
- . **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.

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- . **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.
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

- | | |
|--|---------------|
| . 9.1 Information on basic physical and chemical properties | |
| . General Information | |
| . Appearance: | |
| . Form: | Fluid |
| . Colour: | red brown |
| . Odour: | Odourless |
| . pH-value at 20 °C: ~7 | |
| . Change in condition | |
| . Melting point/freezing point: | Undetermined. |
| . Initial boiling point and boiling range: | > 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/cm ³ | |
| . Solubility in / Miscibility with water: Fully miscible. | |
| . Solvent content: | |
| . Water: | 50-90 % |
| . 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.

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- . **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.
- . **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 (carcinogenicity, 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

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. 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 Annex 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.**

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

Trade name: **Magic-Box C-41 Developer for 1 color negative film**
Bleach Fix BX Part 2

Article number: 100255/2.2

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 of substances listed below and with nonhazardous additions.

Dangerous components:

CAS: 7631-90-5	sodium bisulphite	5-10%
EINECS: 231-548-0	⚠ Acute Tox. 4, H302	
Index number: 016-064-00-8		

Not hazardous components:

CAS: 7783-18-8	Ammonium thiosulphate	25-50%
EINECS: 231-982-0		
Reg.nr.: 01-2119537325-41		

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CAS: 7732-18-5 water
EINECS: 231-791-2

25-50%

. **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**

- . **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 (NO_x)

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

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

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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 through 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:	Light yellow
Odour:	Sulfurous

pH-value at 20 °C:	~5
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. **Change in condition**

Melting point/freezing point:	Undetermined.
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Initial boiling point and boiling range:	> 100 °C
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Flash point:	Not applicable.
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Auto-ignition temperature:	Product is not selfigniting.
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Explosive properties:	Product does not present an explosion hazard.
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Vapour pressure:	Not determined.
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. Density at 20 °C:	~1.3 g/cm 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 1540 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 (carcinogenicity, 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.

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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 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

. 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 Annex II of

Marpol and the IBC Code

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

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**Trade name: Magic-Box C-41 Developer for 1 color negative film
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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.**

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TETENAL

Printing date 28.02.2020

version no: 1

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

Trade name: **Magic-Box C-41 Developer for 1 color negative film**
Stabilizer STAB

Article number: 100255/3

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**

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:

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

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: 100-97-0	hexamethylenetetramine	<1%
EINECS: 202-905-8	☞ Flam. Sol. 2, H228; ☞ Skin Sens. 1, H317	
Index number: 612-101-00-2		
Reg.nr.: 01-2119474895-20		
CAS: 2634-33-5	1,2-benzisothiazol-3(2H)-one	<1%
EINECS: 220-120-9	☞ Eye Dam. 1, H318; ☞ Aquatic Acute 1, H400 (M=10); ☞ Acute Tox.	
Index number: 613-088-00-6	4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317	

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Stabilizer STAB**

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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**
- . **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 with access restricted to technical experts or their assistants only.
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.

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Stabilizer STAB**

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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**

Glove material	breakthrough-time	layer thickness
Butyl rubber:	≥480 min	≥0,4mm
Nitrile rubber:	≥480 min	≥0,38mm
Neoprene:	≥240 min	≥0,65mm

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- . **Eye protection:** Safety glasses
- . **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:** Not determined.
- . **Change in condition**

Melting point/freezing point:	0 °C
Initial boiling point and boiling range:	100 °C
- . **Flash point:** Not applicable.
- . **Flammability (solid, gas):** Not applicable.
- . **Decomposition temperature:** Not determined.

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. 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/cm ³
. 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.
- . **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.
The substance is not subject to classification according to the latest version of the EU lists.
- . **CMR effects (carcinogenicity, 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.

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- . **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**
 - 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 |
| . 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. |

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- | | |
|--|-----------------|
| . 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | 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 <5%
- . **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)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Sol. 2: Flammable solids – Category 2
- 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.**

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