

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

1: Identification

- . **1.1 Product identifier**
- . **Trade name: COLORTEC® C-41**
Colour Developer CD Part 1
- . **Article number:** 102230 CD-Part1
- . **Application of the substance / the mixture** Developer for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL Europe GmbH
Schützenwall 31-35
D-22844 Norderstedt/ Germany
Phone: +49 (0) 40 521 45-0, Fax: +49 (0) 40 521 45-296
www.tetenal.com E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:** Poison Information Centre: +49 (0) 30 - 30686 790 (English 24 hours)

2: Hazard(s) identification

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



GHS08

- Carc. 2 H351 Suspected of causing cancer.
- STOT RE 2 H373 May cause damage to the blood tissue through prolonged or repeated exposure.



GHS07

- Skin Sens. 1 H317 May cause an allergic skin reaction.
- Aquatic Acute 3 H402 Harmful to aquatic life.

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



Harmful

Limited evidence of a carcinogenic effect.



Irritant

May cause sensitisation by skin contact.

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

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

- . **Classification system:**

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

- . **2.2 Label elements**

- . **Labelling according to Regulation (EC) No 1272/2008**

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

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. Hazard pictograms



GHS07 GHS08

. Signal word Warning

. Hazard-determining components of labeling:

bis(hydroxylammonium) sulfate

. Hazard statements

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H373 May cause damage to the blood tissue through prolonged or repeated exposure.

H402 Harmful to aquatic life.

. Precautionary statements

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

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

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

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

. Classification system:

. NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

. HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

. 2.3 Other hazards

. Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

3: Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

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

. Dangerous components:

CAS: 10039-54-0	bis(hydroxylammonium) sulfate	1- 5%
Index number: 612-123-00-2		
Reg.nr.: 01-2119485971-25		

4: First-aid measures

. 4.1 Description of first aid measures

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

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. After inhalation:

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

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

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

. After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

. After swallowing:

If symptoms persist consult doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

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

No further relevant information available.

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

No further relevant information available.

5: Fire-fighting measures

. 5.1 Extinguishing media

. Suitable extinguishing agents:

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

. 5.2 Special hazards arising from the substance or mixture

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

. 5.3 Advice for firefighters

. Protective equipment: No special measures required.

6: Accidental release measures

. 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation

. 6.2 Environmental precautions:

Dilute with plenty of water.

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

. 6.3 Methods and material for containment and cleaning up:

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

Pick up mechanically.

. 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7: Handling and storage

. 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.

. Information about protection against explosions and fires: Protect from heat.

. 7.2 Conditions for safe storage, including any incompatibilities

. Storage:

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

. Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

. Further information about storage conditions:

Protect from heat and direct sunlight.

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

Recommended storage temperature: 5-30 °C

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Protect from exposure to the light.

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

8: Exposure controls/personal protection

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

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 that were valid during the creation were used as basis.. **8.2 Exposure controls**. **Personal protective equipment:**. **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

. **Breathing equipment:** Not necessary if room is well-ventilated.. **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	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

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. **Body protection:** Protective work clothing

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9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Color:	Colorless
Odor:	Odorless

. pH-value at 20 °C (68 °F): 3.6

. Change in condition

Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	> 100 °C (> 212 °F)

. Flash point: Not applicable.

. Auto igniting: Product is not selfigniting.

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

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

. Density at 20 °C (68 °F): ~1.01 g/cm³ (~8.428 lbs/gal)

. Solubility in / Miscibility with

Water: Fully miscible.

. Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

. Solvent content:

Organic solvents:	0.0 %
Water:	>96 %

. 9.2 Other information No further relevant information available.

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/vapors

11: Toxicological information

. 11.1 Information on toxicological effects

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

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. LD/LC50 values that are relevant for classification:		
10039-54-0 bis(hydroxylammonium) sulfate		
Oral	LD50	600 mg/kg (rat)

. Primary irritant effect:**. on the skin:** Based on available data, the classification criteria are not met.**. on the eye:** Based on available data, the classification criteria are not met.**. Sensitization:**

May cause an allergic skin reaction.

. Additional toxicological information:**. Carcinogenic categories****. IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

. NTP (National Toxicology Program)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

. 12.1 Toxicity**. Aquatic toxicity:****10039-54-0 bis(hydroxylammonium) sulfate**

EC50 48h: 1.62 mg/l (daphnia magna (Water flea))

. 12.2 Persistence and degradability No further relevant information available.**. 12.3 Bioaccumulative potential** No further relevant information available.**. 12.4 Mobility in soil** No further relevant information available.**. Additional ecological information:****. General notes:**

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

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

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

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

13: Disposal considerations

. 13.1 Waste treatment methods**. Recommendation:**

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

. Uncleaned packagings:**. Recommendation:**

Dispose of packaging according to regulations on the disposal of packagings.

Disposal must be made according to official regulations.

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

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14: Transport information

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

15: Regulatory information

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

. Section 355 (extremely hazardous substances):

None of the ingredient is listed.

. Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

. TSCA (Toxic Substances Control Act):

All ingredients are listed.

. Proposition 65

. Chemicals known to cause cancer:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

. Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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. Cancerogenity categories

. EPA (Environmental Protection Agency)

None of the ingredients is listed.

. TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

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

None of the ingredients is listed.

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

16: Other information

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

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

. **Date of preparation / last revision** 02/02/2016 / -

. 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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

Carc. 2: Carcinogenicity, Hazard Category 2

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aquatic Acute 3: Hazardous to the aquatic environment - AcuteHazard, Category 3

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

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1: Identification

- . **1.1 Product identifier**
- . **Trade name: COLORTEC® C-41**
Colour Developer CD Part 2
- . **Article number:** 102230 CD-Part2, 102221 CD-Part2
- . **Application of the substance / the mixture** Developer for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL Europe GmbH
Schützenwall 31-35
D-22844 Norderstedt/ Germany
Phone: +49 (0) 40 521 45-0, Fax: +49 (0) 40 521 45-296
www.tetenal.com E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:** Poison Information Centre: +49 (0) 30 - 30686 790 (English 24 hours)

2: Hazard(s) identification

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



GHS08

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

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

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

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



Irritant

May cause sensitisation by skin contact.

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

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

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

- . **Classification system:**

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

- . **2.2 Label elements**

- . **Labelling according to Regulation (EC) No 1272/2008**

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

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. Hazard pictograms



GHS07 GHS08

. Signal word Warning

. Hazard-determining components of labeling:

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

. Hazard statements

H317 May cause an allergic skin reaction.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

. Precautionary statements

P280 Wear protective gloves / eye protection.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of water.
P501 Dispose of contents/container in accordance with local regulations.

. Classification system:

. NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

. HMIS-ratings (scale 0 - 4)



Health = *1
Fire = 0
Reactivity = 0

. 2.3 Other hazards

. Results of PBT and vPvB assessment

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

3: Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

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

. Dangerous components:

CAS: 25646-77-9	(4-ammonio-m-tolyl)ethyl(2-hydroxyethyl)ammonium sulphate (CD-4)	1-5%
Index number: 612-133-00-7		

4: First-aid measures

. 4.1 Description of first aid measures

. General information: Immediately remove any clothing soiled by the product.
. After inhalation: Supply fresh air and to be sure call for a doctor.
. After skin contact: Immediately wash with water and soap and rinse thoroughly.

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- . **After eye contact:** Rinse opened eye for several minutes under running water.
- . **After swallowing:**
Rinse out mouth and then drink plenty of water.
Immediately call a doctor.
- . **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- . **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5: Fire-fighting measures

- . **5.1 Extinguishing media**
- . **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- . **5.2 Special hazards arising from the substance or mixture**
Nitrogen oxides (NO_x)
Sulphur dioxide (SO₂)
- . **5.3 Advice for firefighters**
- . **Protective equipment:** No special measures required.

6: Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- . **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- . **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
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.

7: Handling and storage

- . **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- . **Information about protection against explosions and fires:** 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.
- . **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
Protect from exposure to the light.

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

8: Exposure controls/personal protection

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

. **8.1 Control parameters**

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

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 that were valid during the creation were used as basis.

. **8.2 Exposure controls**

. **Personal protective equipment:**

. **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

. **Breathing equipment:** Ensure adequate ventilation

. **Protection of hands:**



Protective gloves

Impervious gloves

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

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

. **Material of gloves**

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

. **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

Safety glasses

. **Body protection:** Protective work clothing

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9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form: Fluid
Color: Light yellow
Odor: to sulfur dioxide

. pH-value at 20 °C (68 °F): 4.3

. Change in condition

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

. Flash point: Not applicable.

. Auto igniting: Product is not selfigniting.

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

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

. Density at 20 °C (68 °F): ~1.02 g/cm³ (~8.512 lbs/gal)

. Solubility in / Miscibility with

Water: Fully miscible.

. Solvent content:

Organic solvents: 0.0 %
Water: >92 %

. 9.2 Other information No further relevant information available.

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 Reacts with acids, alkalis and oxidizing agents.

. 10.4 Conditions to avoid No further relevant information available.

. 10.5 Incompatible materials: No further relevant information available.

. 10.6 Hazardous decomposition products: Irritant gases/vapors

11: Toxicological information

. 11.1 Information on toxicological effects

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

. LD/LC50 values that are relevant for classification:

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

Dermal	LD50	>2000 mg/kg (rat)
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. Primary irritant effect:

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

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

. Sensitization:

May cause an allergic skin reaction.

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. Additional toxicological information:

. Carcinogenic categories

. IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

. NTP (National Toxicology Program)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity:

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

LC50 96h: 0.75 mg/l (daphnia magna (Water flea))

96h: 0.5-1.0 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: Toxic for fish

. Additional ecological information:

. General notes:

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

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

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

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

. 12.5 Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

. 12.6 Other adverse effects No further relevant information available.

13: Disposal considerations

. 13.1 Waste treatment methods

. Recommendation:

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

. Uncleaned packagings:

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

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

14: Transport information

. 14.1 UN-Number

. DOT, ADR, ADN, IMDG, IATA

Void

(Contd. on page 7)

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Colour Developer CD Part 2

(Contd. of page 6)

. 14.2 UN proper shipping name . DOT, ADR, ADN, IMDG, IATA	Void
. 14.3 Transport hazard class(es) . DOT, ADR, ADN, IMDG, IATA . Class	Void
. 14.4 Packing group . DOT, ADR, IMDG, IATA	Void
. 14.5 Environmental hazards:	Not applicable.
. 14.6 Special precautions for user	Not applicable.
. 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
. UN "Model Regulation":	Void

15: Regulatory information

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

. Section 355 (extremely hazardous substances):

None of the ingredient is listed.

. Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

. TSCA (Toxic Substances Control Act):

All ingredients are listed.

. Proposition 65

. Chemicals known to cause cancer:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

. Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

. Cancerogenity categories

. EPA (Environmental Protection Agency)

None of the ingredients is listed.

. TLV (Threshold Limit Value established by ACGIH)

7681-57-4 sodium metabisulphite

A4

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

None of the ingredients is listed.

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

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Safety Data Sheet

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Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Colour Developer CD Part 2

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16: Other information

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

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

. **Date of preparation / last revision** 02/02/2016 / -

. **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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

1: Identification

- . **1.1 Product identifier**
- . **Trade name:** **COLORTEC® C-41**
Coulor Developer CD-Part 3
- . **Article number:** 102230 CD-Part3, 102221 CD-Part3
- . **Application of the substance / the mixture** Developer for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL Europe GmbH
Schützenwall 31-35
D-22844 Norderstedt/ Germany
Phone: +49 (0) 40 521 45-0, Fax: +49 (0) 40 521 45-296
www.tetenal.com E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:** Poison Information Centre: +49 (0) 30 - 30686 790 (English 24 hours)

2: Hazard(s) identification

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



GHS08

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

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



Irritant

Irritating to eyes and skin.

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

- . **2.2 Label elements**

- . **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labeled according to the CLP regulation.

(Contd. on page 2)

US

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Coulour Developer CD-Part 3

(Contd. of page 1)

. Hazard pictograms



GHS07 GHS08

. Signal word Warning

. Hazard-determining components of labeling:

Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5)

. Hazard statements

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H361 Suspected of damaging fertility or the unborn child.

. Precautionary statements

- P264 Wash thoroughly after handling.
- P280 Wear protective gloves / eye protection.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.

. Classification system:

. NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

. HMIS-ratings (scale 0 - 4)



Health = *1
Fire = 0
Reactivity = 0

. 2.3 Other hazards

. Results of PBT and vPvB assessment

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

3: Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

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

. Dangerous components:

CAS: 584-08-7 RTECS: TS 7750000 Reg.nr.: 01-2119532646-36	potassium carbonate	10-25%
CAS: 140-01-2 Reg.nr.: 01-2119474445-33	Diethylenetriaminepentaacetic acid, pentasodium salt (DTPA-Na5)	1-5%

US

(Contd. on page 3)

Safety Data Sheet

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Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Coulor Developer CD-Part 3

(Contd. of page 2)

4: First-aid measures

4.1 Description of first aid measures

- . **General information:** Immediately remove any clothing soiled by the product.
- . **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- . **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- . **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- . **After swallowing:**
Rinse out mouth and then drink plenty of water.
If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5: Fire-fighting measures

5.1 Extinguishing media

5.2 Suitable extinguishing agents:

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

5.3 Special hazards arising from the substance or mixture

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

5.4 Advice for firefighters

5.5 Protective equipment: No special measures required.

6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

6.2 Environmental precautions:

Dilute with plenty of water.

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

6.3 Methods and material for containment and cleaning up:

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

Pick up mechanically.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

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

7.3 Conditions for safe storage, including any incompatibilities

7.4 Storage:

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

7.6 Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

(Contd. on page 4)

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Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Coulour Developer CD-Part 3

(Contd. of page 3)

- . **Further information about storage conditions:**
 - Keep receptacle tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
 - Store under lock and key and out of the reach of children.
 - Recommended storage temperature: 5-30 °C
 - Protect from exposure to the light.
- . **7.3 Specific end use(s)** No further relevant information available.

8: Exposure controls/personal protection

- . **Additional information about design of technical systems:** No further data; see item 7.
- . **8.1 Control parameters**
- . **Components with limit values that require monitoring at the workplace:**
 - 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 that were valid during the creation were used as basis.
- . **8.2 Exposure controls**
- . **Personal protective equipment:**
- . **General protective and hygienic measures:**
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Do not inhale gases / fumes / aerosols.
 - Avoid contact with the eyes and skin.
- . **Breathing equipment:** Not required.
- . **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	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.

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Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Coulor Developer CD-Part 3

(Contd. of page 4)

. Eye protection:



Tightly sealed goggles

. Body protection: Protective work clothing

9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Color:	Yellow
. Odor:	Odorless

. pH-value at 20 °C (68 °F): 11

. Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

. Flash point: Not applicable.

. Auto igniting: Product is not selfigniting.

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

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

. Density at 20 °C (68 °F): ~1.157 g/cm³ (~9.655 lbs/gal)

. Solubility in / Miscibility with

Water: Fully miscible.

. Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

. Solvent content:

Organic solvents:	0.0 %
Water:	>68 %

. 9.2 Other information No further relevant information available.

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/vapors

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Coulour Developer CD-Part 3

(Contd. of page 5)

11: Toxicological information

. **11.1 Information on toxicological effects**

. **Acute toxicity:** Based on available data, the classification criteria are not met.

. **LD/LC50 values that are relevant for classification:**

584-08-7 potassium carbonate

Oral	LD50	>2000 mg/kg (rat)
------	------	-------------------

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

Oral	LD50	>2000 mg/kg (rat)
------	------	-------------------

. **Primary irritant effect:**

. **on the skin:**

Causes skin irritation.

. **on the eye:**

Causes serious eye irritation.

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

. **Additional toxicological information:**

. **Carcinogenic categories**

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

None of the ingredients is listed.

. **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

12: Ecological information

. **12.1 Toxicity**

. **Aquatic toxicity:**

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

EC50	48h: >500 mg/l (daphnia magna (Water flea))
	48h: >500 mg/l (Invertebrates)
LC50	96h: 1115 mg/l (fish)
	96h: >1000 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.

. **Additional ecological information:**

. **General notes:**

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.

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

. **12.5 Results of PBT and vPvB assessment**

. **PBT:** Not applicable.

. **vPvB:** Not applicable.

. **12.6 Other adverse effects** No further relevant information available.

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Coulor Developer CD-Part 3

(Contd. of page 6)

13: Disposal considerations

. 13.1 Waste treatment methods

. Recommendation:

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

. Uncleaned packagings:

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

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

14: Transport information

. 14.1 UN-Number

. DOT, ADR, ADN, IMDG, IATA Void

. 14.2 UN proper shipping name

. DOT, ADN, IMDG, IATA Void

. ADR Void

. 14.3 Transport hazard class(es)

. DOT, ADR, ADN, IMDG, IATA

. Class Void

. 14.4 Packing group

. DOT, ADR, IMDG, IATA Void

. 14.5 Environmental hazards:

. Marine pollutant: No

. 14.6 Special precautions for user

Not applicable.

. 14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code

Not applicable.

. UN "Model Regulation":

Void

15: Regulatory information

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

. Sara

. Section 355 (extremely hazardous substances):

None of the ingredient is listed.

. Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

. TSCA (Toxic Substances Control Act):

7732-18-5 water

584-08-7 potassium carbonate

298-14-6 potassium hydrogencarbonate

. Proposition 65

. Chemicals known to cause cancer:

None of the ingredients is listed.

(Contd. on page 8)

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Reviewed on 02/02/2016

Trade name: COLORTEC® C-41
Coulour Developer CD-Part 3

(Contd. of page 7)

. Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

. Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

. Cancerogenity categories

. EPA (Environmental Protection Agency)

None of the ingredients is listed.

. TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

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

None of the ingredients is listed.

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

16: Other information

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

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

. Date of preparation / last revision 02/02/2016 / -

. 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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

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

Repr. 2: Reproductive toxicity, Hazard Category 2

. * Data compared to the previous version altered.

Safety Data Sheet

acc. to OSHA HCS

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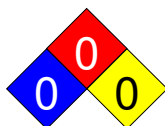
Reviewed on 02/02/2016

1: Identification

- . **1.1 Product identifier**
- . **Trade name: COLORTEC® C-41/ E6**
Bleach Fix BX Part 1
- . **Article number:** 102230 BX-Part1, 102036 BX-Part1, 102221 BX-Part1
- . **Application of the substance / the mixture** Bleachfix preparation for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL Europe GmbH
Schützenwall 31-35
D-22844 Norderstedt/ Germany
Phone: +49 (0) 40 521 45-0, Fax: +49 (0) 40 521 45-296
www.tetenal.com E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:** Poison Information Centre: +49 (0) 30 - 30686 790 (English 24 hours)

2: Hazard(s) identification

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



Health = 0
Fire = 0
Reactivity = 0

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Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

**Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 1**

(Contd. of page 1)

. HMIS-ratings (scale 0 - 4)

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

. 2.3 Other hazards

. Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

3: Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

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

. Dangerous components: Void

. Not hazardous components:

. Not hazardous components:		
68413-60-5	Ammonium ferric ethylenediaminetetraacetic acid (Ferric ammonium ethylenediaminetetraacetate complex)	25-50%

4: First-aid measures

. 4.1 Description of first aid measures

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

. After inhalation: Supply fresh air; consult doctor in case of complaints.

. After skin contact: Immediately rinse with water.

. After eye contact: Rinse opened eye for several minutes under running water.

. After swallowing:

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.

5: Fire-fighting measures

. 5.1 Extinguishing media

. Suitable extinguishing agents:

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

. 5.2 Special hazards arising from the substance or mixture No further relevant information available.

. 5.3 Advice for firefighters

. Protective equipment: No special measures required.

6: Accidental release measures

. 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation

. 6.2 Environmental precautions:

Dilute with plenty of water.

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

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 1

(Contd. of page 2)

- . **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.

7: Handling and storage

- . **7.1 Precautions for safe handling** No special measures required.
- . **Information about protection against explosions and fires:** No special measures required.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** No special requirements.
- . **Information about storage in one common storage facility:** Store away from foodstuffs.
- . **Further information about storage conditions:**
Store 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.

8: Exposure controls/personal protection

- . **Additional information about design of technical systems:** No further data; see item 7.
- . **8.1 Control parameters**
- . **Components with limit values that require monitoring at the workplace:**
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 that were valid during the creation were used as basis.
- . **8.2 Exposure controls**
- . **Personal protective equipment:**
- . **General protective and hygienic measures:** Avoid contact with the skin.
- . **Breathing equipment:** Not required.
- . **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- . **Material of gloves**
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 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

-US-

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Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 1

(Contd. of page 3)

9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Color:	reddish brown
Odor:	Odorless

. pH-value at 20 °C (68 °F): 6.8

. Change in condition

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

. Flash point: Not applicable.

. Auto igniting: Product is not selfigniting.

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

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

. Density at 20 °C (68 °F): ~1.24 g/cm³ (~10.348 lbs/gal)

. Solubility in / Miscibility with

Water: Fully miscible.

. Solvent content:

Organic solvents:	0.7 %
Water:	>59 %
VOC content:	0.7 %

. 9.2 Other information: No further relevant information available.

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/vapors

11: Toxicological information

. 11.1 Information on toxicological effects

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

. Primary irritant effect:

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

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

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

. Additional toxicological information:

. Carcinogenic categories

. IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

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Safety Data Sheet
acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 1

(Contd. of page 4)

. NTP (National Toxicology Program)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity: No further relevant information available.

. 12.2 Persistence and degradability No further relevant information available.

. 12.3 Bioaccumulative potential No further relevant information available.

. 12.4 Mobility in soil No further relevant information available.

. Additional ecological information:

. General notes:

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

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

. 12.5 Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

. 12.6 Other adverse effects No further relevant information available.

13: Disposal considerations

. 13.1 Waste treatment methods

. Recommendation:

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

. Uncleaned packagings:

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

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

14: Transport information

. 14.1 UN-Number

. DOT, ADR, ADN, IMDG, IATA Void

. 14.2 UN proper shipping name

. DOT, ADN, IMDG, IATA Void

. ADR Void

. 14.3 Transport hazard class(es)

. DOT, ADR, ADN, IMDG, IATA

. Class Void

. 14.4 Packing group

. DOT, ADR, IMDG, IATA Void

. 14.5 Environmental hazards:

. Marine pollutant: No

. 14.6 Special precautions for user

Not applicable.

(Contd. on page 6)

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

**Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 1**

(Contd. of page 5)

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

15: Regulatory information

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

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

None of the ingredient is listed.

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

None of the ingredients is listed.

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

7732-18-5	water
64-19-7	acetic acid
3179-31-5	3-Mercapto-1,2,4-triazol (1,2,4-triazole-3-thiol)

. **Proposition 65**

. **Chemicals known to cause cancer:**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

. **Carcinogenicity categories**

. **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

16: Other information

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

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

. **Date of preparation / last revision** 02/02/2016 / -

. **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

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Safety Data Sheet
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Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 1

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ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit

US

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

1: Identification

- . **1.1 Product identifier**
- . **Trade name:** COLORTEC® C-41/ E6
Bleach Fix BX Part 2
- . **Article number:** 102230 BX-Part2, 102036 BX-Part2, 102221 BX-Part2
- . **Application of the substance / the mixture** Bleachfix preparation for photographic use
- . **1.3 Details of the supplier of the safety data sheet**
- . **Manufacturer/Supplier:**
TETENAL Europe GmbH
Schützenwall 31-35
D-22844 Norderstedt/ Germany
Phone: +49 (0) 40 521 45-0, Fax: +49 (0) 40 521 45-296
www.tetenal.com E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:** Poison Information Centre: +49 (0) 30 - 30686 790 (English 24 hours)

2: Hazard(s) identification

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



Health = 1
Fire = 0
Reactivity = 0

(Contd. on page 2)

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

**Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 2**

(Contd. of page 1)

. HMIS-ratings (scale 0 - 4)

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

. 2.3 Other hazards

. Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

3: Composition/information on ingredients

. 3.2 Chemical characterization: Mixtures

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

. Dangerous components:

CAS: 7631-90-5	sodium bisulphite	5-10%
Index number: 016-064-00-8		

. Not hazardous components:

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

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 minutes 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.

5: Fire-fighting measures

. 5.1 Extinguishing media

. Suitable extinguishing agents:

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

. 5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x)

Sulphur dioxide (SO₂)

. 5.3 Advice for firefighters

. Protective equipment: No special measures required.

6: Accidental release measures

. 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation

(Contd. on page 3)

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

**Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 2**

(Contd. of page 2)

- . **6.2 Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- . **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pick up mechanically.
- . **6.4 Reference to other sections** No dangerous substances are released.

7: Handling and storage

- . **7.1 Precautions for safe handling** No special measures required.
- . **Information about protection against explosions and fires:** No special measures required.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** No special requirements.
- . **Information about storage in one common storage facility:** Store away from foodstuffs.
- . **Further information about storage conditions:**
Protect from heat and direct sunlight.
Store under lock and key and out of the reach of children.
Recommended storage temperature: 5-30 °C
- . **7.3 Specific end use(s)** No further relevant information available.

8: Exposure controls/personal protection

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

. 8.1 Control parameters

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

7631-90-5 sodium bisulphite (5-10%)

REL (USA) Long-term value: 5 mg/m³

TLV (USA) Long-term value: 5 mg/m³

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

. 8.2 Exposure controls

. Personal protective equipment:

. General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

. Breathing equipment: 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

(Contd. on page 4)

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

**Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 2**

(Contd. of page 3)

. 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

9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form:	Fluid
Color:	Light yellow
. Odor:	Recognizable

. pH-value at 20 °C (68 °F): 5.4

. Change in condition

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

. Flash point: Not applicable.

. Auto igniting: Product is not selfigniting.

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

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

. Density at 20 °C (68 °F): ~1.34 g/cm³ (~11.182 lbs/gal)

. Solubility in / Miscibility with

Water: Fully miscible.

. Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

. Solvent content:

Water:	>40 %
VOC content:	1.4 %

. 9.2 Other information No further relevant information available.

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/vapors

US
(Contd. on page 5)

Safety Data Sheet
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Reviewed on 02/02/2016

Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 2

(Contd. of page 4)

11: Toxicological information

. 11.1 Information on toxicological effects

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

. LD/LC50 values that are relevant for classification:

7631-90-5 sodium bisulphite

Oral	LD50	1540 mg/kg (rat)
------	------	------------------

. Primary irritant effect:

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

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

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

. Additional toxicological information:

. Carcinogenic categories

. IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

. NTP (National Toxicology Program)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

. 12.1 Toxicity

. Aquatic toxicity: No further relevant information available.

. 12.2 Persistence and degradability No further relevant information available.

. 12.3 Bioaccumulative potential No further relevant information available.

. 12.4 Mobility in soil No further relevant information available.

. Additional ecological information:

. General notes:

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

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

. 12.5 Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

. 12.6 Other adverse effects No further relevant information available.

13: Disposal considerations

. 13.1 Waste treatment methods

. Recommendation:

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

. Uncleaned packagings:

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

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

US

(Contd. on page 6)

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

**Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 2**

(Contd. of page 5)

14: Transport information

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

15: Regulatory information

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

. Section 355 (extremely hazardous substances):

None of the ingredient is listed.

. Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

. TSCA (Toxic Substances Control Act):

7783-18-8	Ammonium thiosulphate
7732-18-5	water
7681-57-4	sodium metabisulphite
7757-83-7	sodium sulphite
64-19-7	acetic acid
60-00-4	edetic acid (EDTA) / ethylenediamine-N,N-tetraacetic acid
3179-31-5	3-Mercapto-1,2,4-triazol (1,2,4-triazole-3-thiol)

. Proposition 65

. Chemicals known to cause cancer:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

(Contd. on page 7)

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

**Trade name: COLORTEC® C-41/ E6
Bleach Fix BX Part 2**

(Contd. of page 6)

. Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

. Cancerogenity categories

. EPA (Environmental Protection Agency)

None of the ingredients is listed.

. TLV (Threshold Limit Value established by ACGIH)

7681-57-4 sodium metabisulphite

A4

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

None of the ingredients is listed.

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

16: Other information

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

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

. Date of preparation / last revision 02/02/2016 / -

. 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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

. * Data compared to the previous version altered.

US

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

1: Identification

- . **1.1 Product identifier**
- . **Trade name: COLORTEC® C-41 / E-6
Stabilizer STAB**
- . **Article number:** 102230 STAB, 102036 STAB, 102221 STAB
- . **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 Europe GmbH
Schützenwall 31-35
D-22844 Norderstedt/ Germany
Phone: +49 (0) 40 521 45-0, Fax: +49 (0) 40 521 45-296
www.tetenal.com E-mail: info@tetenal.com
- . **Information department:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:** Poison Information Centre: +49 (0) 30 - 30686 790 (English 24 hours)

2: Hazard(s) identification

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



GHS07

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

- . **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
- . **Information concerning particular hazards for human and environment:**
The product does not have to be labeled due to the calculation procedure of international guidelines.
- . **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- . **2.2 Label elements**
- . **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labeled according to the CLP regulation.
- . **Hazard pictograms**



GHS07

- . **Signal word** Warning
- . **Hazard-determining components of labeling:**
hexamethylenetetramine
- . **Hazard statements**
H317 May cause an allergic skin reaction.
- . **Precautionary statements**
P264 Wash thoroughly after handling.

(Contd. on page 2)

US

Safety Data Sheet acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

**Trade name: COLORTEC® C-41 / E-6
Stabilizer STAB**

(Contd. of page 1)

P280 Wear protective gloves / eye protection.

- . **Classification system:**
- . **NFPA ratings (scale 0 - 4)**



- . **HMIS-ratings (scale 0 - 4)**

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

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

3: Composition/information on ingredients

- . **3.2 Chemical characterization: Mixtures**

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

. **Dangerous components:**

CAS: 2634-33-5 Index number: 613-088-00-6	1,2-benzisothiazol-3(2H)-one	<0.1%
CAS: 100-97-0 Index number: 612-101-00-2 RTECS: MN 4725000 Reg.nr.: 01-2119474895-20	hexamethylenetetramine	<0.1%

. **Not hazardous components:**

CAS: 7732-18-5 RTECS: ZC 0110000	water	>99%
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4: First-aid measures

- . **4.1 Description of first aid measures**

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

. **After inhalation:**

Supply fresh air; consult doctor in case of complaints.
Supply fresh air.

. **After skin contact:** Immediately rinse with water.

. **After eye contact:** Rinse opened eye for several minutes 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.

-US-

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/02/2016

Reviewed on 02/02/2016

Trade name: COLORTEC® C-41 / E-6
Stabilizer STAB

(Contd. of page 2)

5: Fire-fighting measures

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

6: Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- . **6.2 Environmental precautions:** 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.

7: Handling and storage

- . **7.1 Precautions for safe handling** No special measures required.
- . **Information about protection against explosions and fires:** Protect from heat.
- . **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.
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.

8: Exposure controls/personal protection

- . **Additional information about design of technical systems:** No further data; see item 7.
- . **8.1 Control parameters**
- . **Components with limit values that require monitoring at the workplace:**
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 that were valid during the creation were used as basis.
- . **8.2 Exposure controls**
- . **Personal protective equipment:**
- . **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Avoid contact with the eyes and skin.
- . **Breathing equipment:** Not required.

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**Trade name: COLORTEC® C-41 / E-6
Stabilizer STAB**

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. 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

9: Physical and chemical properties

. 9.1 Information on basic physical and chemical properties

. General Information

. Appearance:

Form: Fluid

Color: Colorless

. Odor: Odorless

. Odor threshold: Not determined.

. pH-value at 20 °C (68 °F): ~8

. Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

. Flash point: Not applicable.

. Flammability (solid, gaseous): Not applicable.

. Ignition temperature:

Decomposition temperature: Not determined.

. Auto igniting: Product is not selfigniting.

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

. Explosion limits:

Lower: Not determined.

Upper: Not determined.

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

. Density at 20 °C (68 °F): ~1 g/cm³ (~8.345 lbs/gal)

. Relative density Not determined.

. Vapor density Not determined.

. Evaporation rate Not determined.

. Solubility in / Miscibility with

Water: Fully miscible.

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**Trade name: COLORTEC® C-41 / E-6
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- . **Partition coefficient (n-octanol/water):** Not determined.
- . **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- . **Solvent content:**
 - Organic solvents:** 0.0 %
 - Water:** >99 %
- . **9.2 Other information** No further relevant information available.

10: Stability and reactivity

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

11: Toxicological information

- . **11.1 Information on toxicological effects**
 - . **Acute toxicity:** Based on available data, the classification criteria are not met.
 - . **Primary irritant effect:**
 - . **on the skin:** Based on available data, the classification criteria are not met.
 - . **on the eye:** Based on available data, the classification criteria are not met.
 - . **Sensitization:**
 - May cause an allergic skin reaction.
 - . **Additional toxicological information:**
 - . **Carcinogenic categories**

. IARC (International Agency for Research on Cancer)

9003-39-8	Polyvinylpyrrolidone (PVP) / 2-Pyrrolidinone, 1-ethylenyl-, homopolymer	3
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. NTP (National Toxicology Program)

None of the ingredients is listed.

. OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

- . **12.1 Toxicity**
 - . **Aquatic toxicity:** No further relevant information available.
- . **12.2 Persistence and degradability** No further relevant information available.
- . **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 1 (Self-assessment): slightly hazardous for water

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- Do not allow product to reach ground water, water course or sewage system.
- . **12.5 Results of PBT and vPvB assessment**
- . **PBT:** Not applicable.
- . **vPvB:** Not applicable.
- . **12.6 Other adverse effects** No further relevant information available.

13: Disposal considerations

- . **13.1 Waste treatment methods**
- . **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- . **Uncleaned packagings:**
- . **Recommendation:** Disposal must be made according to official regulations.

14: Transport information

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

15: Regulatory information

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

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

None of the ingredient is listed.

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

None of the ingredients is listed.

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

68131-39-5	Alcohol ethoxylate
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100-97-0	hexamethylenetetramine
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9003-39-8	Polyvinylpyrrolidone (PVP) / 2-Pyrrolidinone, 1-ethylenyl-, homopolymer
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2634-33-5	1,2-benzisothiazol-3(2H)-one
25265-71-8	oxydipropanol
37971-36-1	2-phosphonobutane-1,2,4-tricarboxylic acid (PBTC)
1310-73-2	sodium hydroxide (caustic soda)
7732-18-5	water

. Proposition 65

. Chemicals known to cause cancer:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

. Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

. Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

. Cancerogenity categories

. EPA (Environmental Protection Agency)

None of the ingredients is listed.

. TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

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

None of the ingredients is listed.

. Labelling according to Regulation (EC) No 1272/2008 GHS label elements

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

16: Other information

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

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

. Date of preparation / last revision 02/02/2016 / 2

. 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

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

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

. * Data compared to the previous version altered.