

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 01.04.2016

version no: 4

Revision: 01.04.2016

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

- . **1.1 Product identifier**
- . **Trade name:** C-41 BL-R/BL-RCY Filmbleach III
- . **Article number:** 102338
- . **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- . **Application of the substance / the mixture** Bleach 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) 40-52145-296  
www.tetenal.com; E-Mail: info@tetenal.com
  
- TETENAL Ltd.,  
2 Meridian West, Meridian Business Park, Leicester LE19 1WX  
Phone: 0116 - 289 3644; E-Mail: uk@tetenal.com; www.tetenaluk.com
- . **Further information obtainable from:** Department environment and safety. E-Mail: info@tetenal.com
- . **1.4 Emergency telephone number:** Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790


#### SECTION 2: Hazards identification

- . **2.1 Classification of the substance or mixture**
- . **Classification according to Regulation (EC) No 1272/2008**  
Skin Irrit. 2            H315 Causes skin irritation.  
Eye Irrit. 2            H319 Causes serious eye irritation.  
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

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- . **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
Xi; Irritant  
R36/38: Irritating to eyes and skin.  
R52/53: 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 labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- . **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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- . **2.2 Label elements**
- . **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- . **Hazard pictograms**
  
- 
- GHS07
  
- . **Signal word** Warning
- . **Hazard statements**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

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#### Precautionary statements

- P280 Wear protective gloves / eye protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P501 Dispose of contents/container in accordance with local regulations.

#### 2.3 Other hazards

#### Results of PBT and vPvB assessment















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

### SECTION 3: Composition/information on ingredients

#### 3.2 Chemical characterisation: Mixtures

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

#### Dangerous components:

CAS: 64-19-7	acetic acid	10-20%
EINECS: 200-580-7	 C R35	
Index number: 607-002-00-6	R10	
Reg.nr.: 01-2119475328-30	 Flam. Liq. 3, H226;  Skin Corr. 1A, H314	
CAS: 111687-36-6	Ammonium iron PDTA	5-10%
ELINCS: 400-660-3	 N R51/53	
Index number: 607-472-00-2	 Aquatic Chronic 2, H411	
Reg.nr.: 01-0000015059-70		
CAS: 12124-97-9	ammonium bromide	5-10%
EINECS: 235-183-8	 Xi R36	
Reg.nr.: 01-2119931350-50	 Eye Irrit. 2, H319	
CAS: 6484-52-2	ammonium nitrate	5-10%
EINECS: 229-347-8	 O R8-9	
	 Ox. Sol. 1, H271	
CAS: 1939-36-2	trimethylenediaminetetraacetic acid / 1,3-PDTA / 1,3-	<1%
ELINCS: 400-400-9	Propylenediaminetetraacetic Acid	
Index number: 607-189-00-4	 Xn R22-63;  Xi R41	
	 Repr. 2, H361;  Eye Dam. 1, H318;  Acute Tox. 4, H302	

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

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- . **After inhalation:** Supply fresh air; consult doctor in case of complaints.  
 . **After skin contact:** Immediately rinse with water.  
 . **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.  
 . **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

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

No further relevant information available.

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

No further relevant information available.

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### SECTION 5: Firefighting measures

- . **5.1 Extinguishing media**
- . **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- . **5.2 Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- . **5.3 Advice for firefighters**
- . **Protective equipment:** Mouth respiratory protective device.

### SECTION 6: Accidental release measures

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

### SECTION 7: Handling and storage

- . **7.1 Precautions for safe handling** Use only in well ventilated areas.
- . **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect from heat.  
Keep respiratory protective device available.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- . **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.

### SECTION 8: Exposure controls/personal protection

- . **Additional information about design of technical facilities:** No further data; see item 7.
- . **8.1 Control parameters**
- . **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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**. DNELs**

**64-19-7 acetic acid**

Inhalative Akute /short-term exposure - local effects, worker	25 mg/m <sup>3</sup> (Worker (Arbeiter))
Long-term - local - effects, worker	25 mg/m <sup>3</sup> (Worker (Arbeiter))
Akute -local effects, general population	25 mg/m <sup>3</sup> (general population- Verbraucher)
Long-term - local effects, general population	25 mg/m <sup>3</sup> (general population- Verbraucher)

**. PNECs**

**64-19-7 acetic acid**

Aquatic compartment - freshwater	3.058 mg/l (.)
Aquatic compartment - marine water	0.358 mg/l (.)
Aquatic compartment -water, intermittent releases	30.58 mg/l (.)
Aquatic compartment -sediment in freshwater	11.36 mg/kg sed dw (.)
Aquatic compartment -sediment in marine water	1.136 mg/kg sed dw (.)
Terrestrial compartment -soil	0.478 mg/kg dw (Soil)
Sewage treatment plant (Abwasserreinigungsanlagen)	85 mg/l (.)

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

**. 8.2 Exposure controls**

**. Personal protective equipment:**

**. General protective and hygienic measures:** Wash hands before breaks and at the end of work.

**. Respiratory protection:** Ensure adequate ventilation

**. Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**. Material of gloves**

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

**. 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.

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

**. Eye protection:**



Tightly sealed goggles

**. Body protection:** Protective work clothing

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### SECTION 9: Physical and chemical properties

#### . 9.1 Information on basic physical and chemical properties

##### . General Information

##### . Appearance:

Form:	Fluid
Colour:	Dark green
Odour:	Acidic

. pH-value at 20 °C: ~4

##### . Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	>100 °C

. Flash point: Not applicable.

. Self-igniting: Product is not selfigniting.

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

. Vapour pressure: Not determined.

. Density at 20 °C: ~1.154 g/cm<sup>3</sup>

##### . Solubility in / Miscibility with water:

Fully miscible.

##### . Solvent content:

Organic solvents:	0.0 %
Water:	>50
VOC (EC)	11.77 %

. 9.2 Other information: No further relevant information available.

### SECTION 10: Stability and reactivity

. 10.1 Reactivity: No further relevant information available.

. 10.2 Chemical stability

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

. 10.3 Possibility of hazardous reactions: Reacts with acids, alkalis and oxidising 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/vapours

### SECTION 11: Toxicological information

#### . 11.1 Information on toxicological effects

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

##### . LD/LC50 values relevant for classification:

##### 64-19-7 acetic acid

Oral	LD50 3310 mg/kg (rat)
Dermal	LD50 1130 mg/kg (rabbit)
Inhalative	LC50 1h: 5620 mg/l (mouse)

##### 111687-36-6 Ammonium iron PDTA

Oral	LD50 >5000 mg/kg (rat)
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**12124-97-9 ammonium bromide**

Oral LD50 2714 mg/kg (rat)  
>2000 mg/kg (rabbit)

**1939-36-2 trimethylenediaminetetraacetic acid / 1,3-PDTA / 1,3-Propylenediaminetetraacetic Acid**

Oral LD50 &gt;2000 mg/kg (rat)

- . **Primary irritant effect:**
- . **Skin corrosion/irritation**  
Causes skin irritation.
- . **Serious eye damage/irritation**  
Causes serious eye irritation.
- . **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- . **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- . **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- . **Carcinogenicity** Based on available data, the classification criteria are not met.
- . **Reproductive toxicity** Based on available data, the classification criteria are not met.
- . **STOT-single exposure** Based on available data, the classification criteria are not met.
- . **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- . **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

. **12.1 Toxicity**. **Aquatic toxicity:****64-19-7 acetic acid**

LC50 24h: >100 mg/l (daphnia magna (Water flea))  
96h: >1000 mg/l (fish)  
96h: 75 mg/l (Lepomis macrochirus (Sonnenbarsch))  
24h: 106 mg/l (fish: Pimephales promelas)

**111687-36-6 Ammonium iron PDTA**

EC50 48h: >1000 mg/l (daphnia magna (Water flea))  
LC50 96h: >1000 mg/l (fish: Oncorhynchus mykiss)

**12124-97-9 ammonium bromide**

EC50 &gt;1000 mg/l (Invertebrates)

**1939-36-2 trimethylenediaminetetraacetic acid / 1,3-PDTA / 1,3-Propylenediaminetetraacetic Acid**

EC50 48h: >88 mg/l (daphnia magna (Water flea))  
LC50 96h: >180 mg/l (Brachydanio rerio (fisch))

- . **12.2 Persistence and degradability** No further relevant information available.
- . **12.3 Bioaccumulative potential** No further relevant information available.
- . **12.4 Mobility in soil** No further relevant information available.

. **Ecotoxicological effects:**. **Remark:** Harmful to fish. **Additional ecological information:**. **General notes:**

Do not allow product to reach ground water, water course or sewage system.  
Harmful to aquatic organisms  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Danger to drinking water if even small quantities leak into the ground.

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

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

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

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### SECTION 13: Disposal considerations

. **13.1 Waste treatment methods**

. **Recommendation**

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

. **European waste catalogue**

09 01 05 bleach solutions and bleach fixer solutions

. **Uncleaned packaging:**

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

### SECTION 14: Transport information

. **14.1 UN-Number**

. **ADR, IMDG, IATA** UN2790

. **14.2 UN proper shipping name**

. **IMDG** ACETIC ACID SOLUTION

. **IATA** Acetic acid solution

. **14.3 Transport hazard class(es)**

. **ADR**



. **Class** 8 (C9) Corrosive substances.

. **Label** 8

. **IMDG, IATA**



. **Class** 8 Corrosive substances.

. **Label** 8

. **14.4 Packing group**

. **ADR, IMDG, IATA** III

. **14.5 Environmental hazards:**

. **Marine pollutant:** No

. **14.6 Special precautions for user**

Warning: Corrosive substances.

. **Danger code (Kemler):** 80

. **EMS Number:** F-A,S-B

. **Segregation groups** Acids

. **Stowage Category** A

. **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

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## . Transport/Additional information:

## . ADR

. Limited quantities (LQ)

5L

. Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

. Transport category

3

. Tunnel restriction code

E

## . IMDG

. Limited quantities (LQ)

5L

. Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

. UN "Model Regulation":

Void

**SECTION 15: Regulatory information**

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

No further relevant information available.

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

**SECTION 16: Other information**

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

## . Relevant phrases

H226 Flammable liquid and vapour.

H271 May cause fire or explosion; strong oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H361 Suspected of damaging fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

R10 Flammable.

R22 Harmful if swallowed.

R35 Causes severe burns.

R36 Irritating to eyes.

R41 Risk of serious damage to eyes.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63 Possible risk of harm to the unborn child.

R8 Contact with combustible material may cause fire.

R9 Explosive when mixed with combustible material.

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

## . Abbreviations and acronyms:

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

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

ICAO: International Civil Aviation Organisation

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

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

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IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 3: Flammable liquids, Hazard Category 3  
Ox. Sol. 1: Oxidising Solids, Hazard Category 1  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Repr. 2: Reproductive toxicity, Hazard Category 2  
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3  
**\* Data compared to the previous version altered.**  
Dangerous good (see point 14)

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