

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

Printing date 03.04.2018

Version 5


Revision: 27.03.2018

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


- **1.1 Product identifier**
- **Trade name: C-41 RA BL-R**

- **Article number: 13341**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
To this day we do not have any information about the identified use at the moment. These data are available we will add these to the safety data sheet.
- **Application of the substance / the mixture**
Photographic activities
Photochemicals
Colour film photographic processing solution
bleach solution
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Calbe Chemie GmbH
Stadtfeld 31
D-39240 Calbe
Tel.: +49 (0)39291 425-0
Fax: +49 (0)39291 425-25
e-mail: info@calbe-chemie.de
www.calbe-chemie.de
- **Informing department:**
Tel.: +49 (0)39291 42515
E-Mail: kr@calbe-chemie.de
- **1.4 Emergency telephone number: Tel.: 0700-24112112 (CAL)**

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
-  GHS05 corrosion
Met. Corr.1 H290 May be corrosive to metals.

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

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**
-  GHS05
- **Signal word** Warning

(Contd. on page 2)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 1)

- **Hazard statements**
 - H290 May be corrosive to metals.
 - H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P273 Avoid release to the environment.
 - P390 Absorb spillage to prevent material damage.
 - P501 Dispose of contents/container in accordance with local/regional/national/international 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 Mixtures**
- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

CAS: 111687-36-6 ELINCS: 400-660-3 Index number: 607-472-00-2	ammonium iron(III)trimethylenediaminetetraacetate hemihydrate ⚠ Aquatic Chronic 2, H411	10-15%
CAS: 110-15-6 EINECS: 203-740-4 Reg.nr.: 01-2119896114-34-xxxx	succinic acid ⚠ Eye Irrit. 2, H319	5.0-10%
CAS: 6484-52-2 EINECS: 229-347-8 Reg.nr.: 01-2119490981-27-0000	ammonium nitrate ⚠ Ox. Sol. 1, H271	2.0-5.0%

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

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information**
 - Instantly remove any clothing soiled by the product.
 - Personal protection for the First Aider.
- **After skin contact** If skin irritation continues, consult a doctor.
- **After eye contact**
 - Rinse opened eye for several minutes under running water (at least 15 minutes).
 - Remove contact lenses, if present and easy to do.
 - Use eye protection.
 - Call a doctor immediately.
- **After swallowing** Rinse out mouth and then drink plenty of water.

(Contd. on page 3)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 2)

- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Information for doctor** None
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Can be released in case of fire
Nitrogen oxides (NO_x)
Carbon monoxide
Carbon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
At formation of toxic gases:
Put on breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
- **6.2 Environmental precautions:**
Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, 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 of contaminated material as waste according to item 13.
- **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 information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Keep containers tightly sealed.
- **Information about protection against explosions and fires:** The product is not flammable

(Contd. on page 4)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 3)

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** Store only in the original container.
- **Information about storage in one common storage facility:**
Keep away from foodstuffs, beverages and food.
- **Further information about storage conditions:** Store in a cool place.
- **Recommended storage temperature:** 5-25°C
- **Storage class**
LGK 12
(German Technical Rule for Hazardous Substance – TRGS 510)
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 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 compilation were used as basis.
 - **8.2 Exposure controls**
 - **Personal protective equipment**
 - **General protective and hygienic measures**
The usual precautionary measures should be adhered to general rules for handling chemicals.
Take off immediately all contaminated clothing.
Wash contaminated clothing before reuse.
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Do not eat, drink or smoke while working.
 - **Breathing equipment:** Not required.
 - **Protection of hands:**
Protective gloves.
The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374.
This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.
Only use chemical-protective gloves with CE-labelling of category III.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 - **Material of gloves**
- | Thickness | Breakthrough time | |
|---------------|-------------------|-------|
| | (mm) | (min) |
| Nitril rubber | 0,38 | > 480 |
| Neoprene | 0,65 | > 240 |
| Butyl rubber | 0,36 | > 480 |
- Avoid natural rubber gloves.

(Contd. on page 5)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 4)

· **As protection from splashes gloves made of the following materials are suitable:**

Synthetic gloves

Value for permeation: Level:

≥ 3 (60 min)

· **Eye protection:** Safety glasses

· **Body protection:** Light weight protective clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Fluid

Colour: Dark green

· **Odour:** Not characteristic

· **Odour threshold:** Not determined.

· **pH-value at 20 °C:** 3.8

· **Change in condition**

Melting point/freezing point: Not determined

Initial boiling point and boiling range: > 100 °C

· **Flash point:** Not applicable

· **Inflammability (solid, gaseous)** Not applicable.

· **Ignition temperature:** 630 °C

· **Decomposition temperature:** Not determined.

· **Self-inflammability:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive.

· **Critical values for explosion:**

Lower: None

Upper: None

· **Oxidising properties** None

· **Vapour pressure at 20 °C:** 23 hPa

· **Density at 20 °C** 1.15 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

Water: miscible

· **Partition coefficient: n-octanol/water:** Not determined.

(Contd. on page 6)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 5)

- | | |
|--------------------------------|--|
| · Viscosity: | |
| dynamic: | Not determined |
| kinematic: | Not determined |
| · Solvent content: | |
| Organic solvents: | 0.0 % |
| Water: | ~ 70 % |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

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 that are relevant for classification:**

111687-36-6 ammonium iron(III)trimethylenediaminetetraacetate hemihydrate

Oral	LD50	> 5000 mg/kg (rat)
------	------	--------------------

110-15-6 succinic acid

Oral	LD50	2260 mg/kg (rat)
------	------	------------------

6484-52-2 ammonium nitrate

Oral	LD50	4820 mg/kg (rat)
------	------	------------------

- **Specific symptoms in biological assay:** Not determined
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
This statement was deduced from the properties of the single components.
- **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.

(Contd. on page 7)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 6)

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

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

No further relevant information available.

111687-36-6 ammonium iron(III)trimethylenediaminetetraacetate hemihydrate

EC50/48 h > 1000 mg/l (Daphnia magna)

LC50/96 h > 1000 mg/l (Onchrohynchus mykiss)

110-15-6 succinic acid

EC50/48 h 374 mg/l (Daphnia magna)

- **12.2 Persistence and degradability** Not determined
- **12.3 Bioaccumulative potential** Not determined
- **Behaviour in environmental systems:** Not determined
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
No further relevant information available.
Not determined
- **Remark:** Harmful to fish
- **Behaviour in sewage processing plants:** Not determined
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): Water-endangering.
At present there are no ecotoxicological assessments.
This statement was deduced from the properties of the single components.
Harmful to aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 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.

Must be specially treated under adherence to official regulations.

(Contd. on page 8)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 7)

· **European waste catalogue**

09 01 05* | bleach solutions and bleach fixer solutions

· **Uncleaned packagings:**

· **Recommendation:**

Non contaminated packagings can be used for recycling.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR/RID, IMDG, IATA**

UN 3265

· **14.2 UN proper shipping name**

· **ADR/RID, IMDG, IATA**

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
(ammonium iron(III)
trimethylenediaminetetraacetate hemihydrate)

· **14.3 Transport hazard class(es)**

· **ADR/RID, IMDG, IATA**



· **Class**

8 Corrosive substances.

· **Label**

8

· **14.4 Packing group**

· **ADR/RID, IMDG, IATA**

III

· **14.5 Environmental hazards:**

· **Marine pollutant:**

No

· **14.6 Special precautions for user**

Warning: Corrosive substances.

· **Kemler Number:**

80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

Acids

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

Not applicable.

· **Transport/Additional information:**

· **ADR/RID**

· **Limited quantities (LQ)**

5 l

· **Transport category**

3

· **Tunnel restriction code**

E

· **Remarks:**

"Limited quantity" according to chapter 3.4 ADR

(Contd. on page 9)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 8)

<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Remarks: 	<p>5 l "Limited quantity" according to chapter 3.4 IMDG</p>
<ul style="list-style-type: none"> · IATA · Remarks: 	<p>Packing Instruction PAX 852, CAO 856</p>
<ul style="list-style-type: none"> · UN "Model Regulation": 	<p>UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ammonium iron(III) trimethylenediaminetetraacetate hemihydrate), 8, III</p>

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 65
- **National regulations**
- **Information about limitation of use:** None
- **Water hazard class:** Water hazard class 2 (Self-assessment): water-endangering.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H271 May cause fire or explosion; strong oxidiser.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
- **Department issuing data specification sheet:**
Laboratory
Tel.: +49 (0)39291 425-15
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 10)

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

Printing date 03.04.2018

Version 5

Revision: 27.03.2018

Trade name: C-41 RA BL-R

(Contd. of page 9)

vPvB: very Persistent and very Bioaccumulative

Ox. Sol. 1: Oxidizing solids – Category 1

Met. Corr.1: Corrosive to metals – Category 1

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

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

• **Sources**

applicable EEC directives:

- 1907/2006

- 1272/2008

Internal physical tests, MSDS of the ingredients,

Information system on hazardous substances of the German Social Accident Insurance

(GESTIS-database on hazardous substances), <http://www.dguv.de/ifa/en/gestis/stoffdb/index.jsp>

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

GB