

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 23.04.2014

Version 2

Revision: 23.04.2014

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

- **1.1 Product identifier**
- **Trade name: ADOX RA-4 Print Kit Professional CD**
- **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**
Photochemicals
Photographic developer
Photographic activities
Consumer use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
ADOX Fotowerke GmbH
Pieskower Str. 30 A
D-15526 Bad Saarow
Tel.: +49 (0)33631 6459-0
Fax: +49 (0)33631 6459-190
<http://www.adox.de>
- **Informing department:**
Tel.: +49 (0)33631 6459-0
Fax: +49 (0)33631 6459-190
E-mail: info@fotoimpex.de
- **1.4 Emergency telephone number:** Tel.: +49 (0)6132-84463

2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
-  GHS07

| | |
|-------------------|---|
| Acute Tox. 4 | H302 Harmful if swallowed. |
| Skin Irrit. 2 | H315 Causes skin irritation. |
| Eye Irrit. 2 | H319 Causes serious eye irritation. |
| 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**
-  Xn; Harmful
 R22: Harmful if swallowed.
-  Xi; Irritant
 R36/38: Irritating to eyes and skin.
-  Xi; Sensitising
 R43: May cause sensitisation by skin contact.
- 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.

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- **Classification system:**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

- **2.2 Label elements**

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

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

- **Hazard pictograms**



GHS07

- **Signal word** Warning

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

2,2'-oxybisethanol

N-(2-(N-Ethyl-(4-Amino-3-methylphenyl)-amino)-ethyl)-methansulfonamidesesquisulphate, Monohydrate

- **Hazard statements**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

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

P102 Keep out of reach of children.

P280 Wear protective gloves / eye protection.

P273 Avoid release to the environment.

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/regional/national/international regulations.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **3.2 Mixtures**

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

- **Dangerous components:**

| | | |
|-------------------|--------------------|--------|
| CAS: 111-46-6 | 2,2'-oxybisethanol | 25-50% |
| EINECS: 203-872-2 | Xn R22 | |
| | Acute Tox. 4, H302 | |

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| | | |
|--------------------------------------|---|----------|
| CAS: 584-08-7 EINECS: 209-529-3 | potassium carbonate ☒ Xi R36/37/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335 | 5.0-10% |
| CAS: 25646-71-3 EINECS: 247-161-5 | N-(2-(N-Ethyl-(4-Amino-3-methylphenyl)-amino)-ethyl)-methan-sulfonamidsesquisulphate, Monohydrate ☒ Xn R22 ☒ Xi R43 ☒ N R50/53 ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317 | 2.0-5.0% |
| CAS: 1310-73-2 EINECS: 215-185-5 | sodium hydroxide ☒ C R35 ⚠ Skin Corr. 1A, H314 | 0.5-2.0% |
| CAS: 3710-84-7 EINECS: 223-055-4 | N,N-diethylhydroxylamine ☒ Xn R20/21 ☒ Xi R36/38 R10 ⚠ Flam. Liq. 3, H226 ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319 | 0.5-2.0% |
| | Main component: water | 25-50% |

• **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

• **4.1 Description of first aid measures**

• **General information**

Instantly remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 24 hours after the accident.

• **After inhalation** Supply fresh air; consult doctor in case of symptoms.

• **After skin contact**

Instantly wash with water and soap and rinse thoroughly.

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.

Do not induce vomiting; instantly call for medical help.

• **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 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.

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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
Sulphur oxides (SO_x)
Nitrogen oxides (NO_x)
Carbon monoxide
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained breathing apparatus.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Avoid contact with skin, eye and clothing.
- **6.2 Environmental precautions:**
Do not allow to enter drainage system, surface or ground water.
Inform respective authorities in case product reaches water or sewage system.
- **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.
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
- **6.4 Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

7 Handling and storage

- **7.1 Precautions for safe handling**
Keep containers tightly sealed.
Keep away from heat and direct sunlight.
Use only in well ventilated areas.
Avoid release to the environment.
Instantly remove any clothing soiled by the product.
- **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 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:**
Keep container tightly sealed.
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.

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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:**

111-46-6 2,2'-oxybisethanol

| | |
|-----|---|
| WEL | Long-term value: 101 mg/m ³ , 23 ppm |
|-----|---|

· **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.

Keep away from foodstuffs, beverages and food.

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.

· **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 (mm) | Breakthrough time (min) |
|---------------|-------------------|----------------------------|
| Nitril rubber | 0,38 | > 480 |
| Neoprene | 0,65 | > 240 |
| Butyl rubber | 0,36 | > 480 |

Avoid natural rubber gloves.

· **Penetration time of glove material**

Value for permeation: Level ≤ 6 (480 min)

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· **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

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9 Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

| | |
|---------|--------------|
| Form: | Fluid |
| Colour: | Light orange |
| Odour: | Amine-like |

· pH-value at 20 °C: 10.7

· Change in condition

Melting point/Melting range: Not determined

· Flash point: > 100 °C

· Self-inflammability: Product is not selfigniting.

· Danger of explosion: Product is not explosive.

· Critical values for explosion:

Oxidizing properties: None

· Vapour pressure: Not determined

· Density at 20 °C: 1.145 g/cm³

· Solubility in / Miscibility with

Water: miscible

· Viscosity:

dynamic: Not determined

kinematic: Not determined

· 9.2 Other information: No further relevant information available.

10 Stability and reactivity

· 10.1 Reactivity

· 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 strong acids

· 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

11 Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

25646-71-3 N-(2-(N-Ethyl-(4-Amino-3-methylphenyl)-amino)-ethyl)-methan-sulfonamidesquisulphate, Monohydrate

| | | |
|------|------|-----------------|
| Oral | LD50 | 246 mg/kg (rat) |
|------|------|-----------------|

· Primary irritant effect:

· on the skin: Irritant to skin and mucous membranes.

· on the eye: Irritant effect.

· Sensitization: Sensitization possible by skin contact.

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- **Other information (about experimental toxicology):** Not determined
- **Subacute to chronic toxicity:** Not determined

- **Additional toxicological information:**

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

Harmful
Irritant

12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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:**
N-(2-(4-AMINO-N-ETHYL-M-TOLUIDINO)ETHYL)METHANSULFON-AMIDSESQUISULPHATE
Toxicity for fishes (EC50): 0,3 mg/l
Not determined
- **Behaviour in sewage processing plants:** Not determined
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): Water-endangering.
The product contains materials that are harmful to the environment.
- **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.
Must be specially treated under adherence to official regulations.

- **European waste catalogue**

| | |
|----------|---|
| 09 01 01 | water-based developer and activator 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.

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14 Transport information

| | |
|--|--|
| · 14.1 UN-Number · ADR, ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | Void |
| · 14.4 Packing group · ADR, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | Not applicable. |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

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

- National regulations

| Class | Share in % |
|-------|------------|
| NK | 34.8 |

- 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.

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

| | |
|--------|---|
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| R10 | Flammable. |
| R20/21 | Harmful by inhalation and in contact with skin. |
| R22 | Harmful if swallowed. |
| R35 | Causes severe burns. |

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R36/37/38 Irritating to eyes, respiratory system and skin.

R36/38 Irritating to eyes and skin.

R43 May cause sensitisation by skin contact.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized 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

Flam. Liq. 3: Flammable liquids, Hazard Category 3

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

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

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

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

· **Sources** applicable EEC directives:

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

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

- **1.1 Product identifier**
- **Trade name: ADOX RA-4 Print Kit Professional BX**
- **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
Consumer use
Photochemicals
Bleach fix solution
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
ADOX Fotowerke GmbH
Pieskower Str. 30 A
D-15526 Bad Saarow
Tel.: +49 (0)33631 6459-0
Fax: +49 (0)33631 6459-190
<http://www.adox.de>
- **Informing department:**
Tel.: +49 (0)33631 6459-0
Fax: +49 (0)33631 6459-190
E-mail: info@adox.de
- **1.4 Emergency telephone number:** Tel.: 0700-24112112 (CAL)

2 Hazards identification

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

-
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void
 - **Information concerning particular hazards for human and environment:**
The product does not have 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 in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.
-

- **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**
H319 Causes serious eye irritation.
- **Precautionary statements**
P280 Wear eye protection / face protection.

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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.

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.

3 Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of the substances listed below with harmless additions.

- **Dangerous components:**

| | | |
|--------------------------------------|--|----------|
| CAS: 10192-30-0 EINECS: 233-469-7 | ammonium hydrogensulphite  Xi R36 R31 <hr style="border-top: 1px dashed black;"/>  Eye Irrit. 2, H319 | 5.0-10% |
| CAS: 1762-95-4 EINECS: 217-175-6 | ammonium thiocyanate  Xn R20/21/22 R32-52/53 <hr style="border-top: 1px dashed black;"/>  Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332 Aquatic Chronic 3, H412 | 2.0-5.0% |
| CAS: 64-19-7 EINECS: 200-580-7 | acetic acid  C R35 R10 <hr style="border-top: 1px dashed black;"/>  Flam. Liq. 3, H226  Skin Corr. 1A, H314 | 0.5-2.0% |

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

4 First aid measures

- **4.1 Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air.
- **After skin contact**
Instantly wash with water and soap and rinse thoroughly.
The product is not skin irritating.
- **After eye contact**
Rinse opened eye for several minutes under running water (> 15 min). Then consult doctor.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
In case of persistent symptoms consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
No known symptoms to date.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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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
sulphur dioxide (SO₂)
Nitrogen oxides (NO_x)
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
At formation of toxic gases:
Put on breathing apparatus.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
- **6.2 Environmental precautions:** 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).
- **6.4 Reference to other sections**
No dangerous materials are released.
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

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 containers:** No special requirements.
- **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.

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

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- **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.
Keep away from foodstuffs, beverages and food.
Take off immediately all contaminated clothing.
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**
Synthetic gloves
Avoid natural rubber gloves.
- **Penetration time of glove material**
Value for permeation: Level ≤ 6 (480 min)
The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
- **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 recommended during refilling.

9 Physical and chemical properties

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

| | |
|----------------|---------------------|
| Form: | Fluid |
| Colour: | Dark brown Clear |
- **Odour:** Weak, characteristic
- **pH-value at 25 °C:** 6.0
- **Change in condition**

| | |
|-------------------------------------|----------------|
| Melting point/Melting range: | Not determined |
| Boiling point/Boiling range: | > 100 °C |
- **Flash point:** Not applicable
- **Self-inflammability:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive.
- **Vapour pressure at 20 °C:** 23 hPa

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| | |
|--|--|
| · Density at 20 °C | 1.28 g/cm ³ |
| · Solubility in / Miscibility with Water: | miscible |
| · Viscosity: dynamic: | Not determined |
| kinematic: | Not determined |
| · Solvent content: Water: | ~ 46 % |
| · 9.2 Other information | No further relevant information available. |

10 Stability and reactivity

- **10.1 Reactivity**
- **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

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**
This statement was deduced from the properties of the single components.
The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** Not determined
- **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.
- **Ecotoxic effects:** Not determined
- **Behaviour in sewage processing plants:** Not determined

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- **Additional ecological information:**

- **General notes:**

At present there are no ecotoxicological assessments.

Water hazard class 2 (German Regulation) (Self-assessment): Water-endangering.

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

According to the criteria of the EU-classification and labelling "dangerous for environment"(1999/45/EG) the substance/ the product has to be classified as non-hazardous for the environment.

The product does not contain organically bounded halogens (AOX-free).

- **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.

Must be specially treated under adherence to official regulations.

- **European waste catalogue**

| | |
|-----------|---|
| 09 01 05* | bleach solutions and bleach fixer solutions |
|-----------|---|

- **Uncleaned packagings:**

- **Recommendation:**

Non contaminated packagings can be used for recycling.

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

EAK-No. 15 01 10

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

14 Transport information

- **14.1 UN-Number**

- **ADR, ADN, IMDG, IATA**

Void

- **14.2 UN proper shipping name**

- **ADR**

Void

- **ADN, IMDG, IATA**

Void

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

- **ADR, ADN, IMDG, IATA**

- **Class**

Void

- **14.4 Packing group**

- **ADR, IMDG, IATA**

Void

- **14.5 Environmental hazards:**

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.

- **Transport/Additional information:**

Not dangerous according to the above specifications.

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· UN "Model Regulation": -

15 Regulatory information

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

· **National regulations**

| Class | Share in % |
|-------|------------|
| II | 1.3 |

· **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.

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**

H226 Flammable liquid and vapour.
 H302 Harmful if swallowed.
 H312 Harmful in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H412 Harmful to aquatic life with long lasting effects.

R10 Flammable.
 R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
 R31 Contact with acids liberates toxic gas.
 R32 Contact with acids liberates very toxic gas.
 R35 Causes severe burns.
 R36 Irritating to eyes.
 R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **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 Organization
 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 Harmonized 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)
 Flam. Liq. 3: Flammable liquids, Hazard Category 3
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· **Sources**

applicable EEC directives:

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- 1999/45
- 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>

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