

Safety data sheet
according to Regulation (EC) No 1907/2006, Article
31

Printing date 12.11.2024

Version 11.0

Revision: 12.11.2024

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

- **1.1 Product identifier**
 - **Trade name:** **T 93 Teil 1**
 - **UFI:** CVD1-T0FX-8005-UWT2
- **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**
 Photo chemicals
 Developer for X-ray films
 Reserved for industrial and professional use.
- **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: rs@calbe-chemie.de
- **1.4 Emergency telephone number:**
 Tel.: +49 (0) 700-24112112 (CAL)
 Tel.: +1 872 5888271(CAL)

SECTION 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.

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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**
 H319 Causes serious eye irritation.

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· Precautionary statements

- P280 Wear eye protection / face 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.

· 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: 497-19-8	sodium carbonate	25 - 50%
EINECS: 207-838-8	⚠ Eye Irrit. 2, H319	
CAS: 12179-04-3	disodium tetraborate pentahydrate	5 - 10%
EINECS: 215-540-4	⚠ Repr. 1B, H360FD	
CAS: 7758-02-3	potassium bromide	2 - 5%
EINECS: 231-830-3	⚠ Eye Irrit. 2, H319	

· SVHC

12179-04-3	disodium tetraborate pentahydrate	5 - 10%
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- **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**

Personal protection for the First Aider.
 Instantly remove any clothing soiled by the product.

- **After inhalation** Supply fresh air.

- **After skin contact** Instantly wash with water and soap and rinse thoroughly.

· After eye contact

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

· After swallowing

Rinse out mouth and then drink plenty of water.
 Induce vomiting.
 A person vomiting while lying on their back should be turned onto their side.

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

To date, there are no known symptoms.

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- **4.3 Indication of any immediate medical attention and special treatment needed**
 No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
 CO₂, extinguishing powder or water jet. Fight larger fires with water spray 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.
 None
- **5.2 Special hazards arising from the substance or mixture**
 Can be released in case of fire
 Carbon monoxide
 Carbon dioxide
 Sulphur oxides (SO_x)
- **5.3 Advice for firefighters**
- **Protective equipment:**
 Do not inhale explosion gases or combustion gases.
 If toxic gases occur:
 Put on breathing apparatus.
- **Additional information** The product is not flammable

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
 Wear protective clothing.
 Avoid causing dust.
- **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:**
 Collect mechanically.
 Dispose of contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
 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** Wear protective clothing.
- **Information about protection against explosions and fires:**
 No special measures required.

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The product is not flammable

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and containers:**

Keep container tightly sealed.

- **Information about storage in one common storage facility:**

Keep away from foodstuffs, beverages and food.

- **Further information about storage conditions:**

Store in cool, dry conditions in well sealed containers.

- **Recommended storage temperature: 5-25 °C**

- **Storage class 13**

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

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

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

12179-04-3 disodium tetraborate pentahydrate	
OEL (Ireland)	Long-term value: 2 mg/m ³ Repr 1B

- **Additional information:**

The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**

- **Appropriate engineering controls** No further data; see section 7.

- **Individual protection measures, such as 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.

Do not eat, drink or smoke while working.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

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

- **Hand protection**

Avoid direct contact with the chemical/ the product/ the preparation by organisational measures.

- **Eye/face protection** Safety glasses

- **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

· Colour:	Whitish
· Odour:	Not characteristic
· Melting point/freezing point:	Not determined
· Boiling point or initial boiling point and boiling range	Not determined
· Flash point:	Not applicable
· pH (100 g/l) at 25 °C	12.0
· Viscosity:	
· Kinematic viscosity	Not applicable
· dynamic:	Not applicable
· Solubility	
· Water at 20 °C:	200 g/l
· Vapour pressure:	Not applicable
· Density and/or relative density	
· Density	Not applicable
· Particle characteristics	
See section 3.	

· 9.2 Other information

· Appearance:	No further relevant information available.
· Form:	Solid.
· Important information on protection of health and environment, and on safety.	
· Self-inflammability:	Product is not selfigniting.
· Explosive properties:	Product is not explosive.
· Solvent content:	
· Organic solvents:	0.0 %
· Water:	0.0 %
· Solids content:	100.0 %
· Change in condition	
· Softening point/range	
· Oxidising properties	None

· Information with regard to physical hazard classes

· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void

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· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

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 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

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:**

497-19-8 sodium carbonate		
Oral	LD50	4000 mg/kg (rat)
12179-04-3 disodium tetraborate pentahydrate		
Oral	LD50	2660 mg/kg (rat)
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
Based on available data, the classification criteria are not met.
- **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.

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- **Additional toxicological information:**

This statement was deduced from the properties of the single components.

- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

497-19-8 sodium carbonate

LC50/96 h 300 mg/l (Lepomis macrochirus)

12179-04-3 disodium tetraborate pentahydrate

EC50/96 h 15.4 mg/l (algae)

LC50/48 h 141 mg/L (Daphnia magna)

- **12.2 Persistence and degradability** Not determined

- **Behaviour in environmental systems:** Not determined

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

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

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects**

- **Ecotoxic effects:** No further relevant information available.

- **Behaviour in sewage processing plants:** Not determined

- **Additional ecological information:**

- **General notes:**

At present there are no ecotoxicological assessments.

This statement was deduced from the properties of the single components.

Water hazard class 1 (German Regulation) (Self-assessment): Weakly water-endangering.

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.

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- **European waste catalogue**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 08*	discarded organic chemicals consisting of or containing hazardous substances
HP4	Irritant - skin irritation and eye damage
HP10	Toxic for reproduction

- **Uncleaned packagings:**

- **Recommendation:**

Non contaminated packagings can be used for recycling.
 Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

SECTION 14: Transport information

- **14.1 UN number or ID number**

- **ADR/RID, ADN, IMDG, IATA** Void

- **14.2 UN proper shipping name**

- **ADR/RID, ADN, IMDG, IATA** Void

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

- **ADR/RID, ADN, IMDG, IATA**

- **Class** Void

- **14.4 Packing group**

- **ADR/RID, IMDG, IATA** Void

- **14.5 Environmental hazards:** Not applicable.

- **14.6 Special precautions for user** Not applicable.

- **14.7 Maritime transport in bulk**

- **according to IMO instruments** Not applicable.

- **Transport/Additional information:** Not dangerous according to the above specifications.

- **UN "Model Regulation":** Void

SECTION 15: Regulatory information

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

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

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

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· **Hazard pictograms**

GHS07

· **Signal word** Warning· **Hazard statements**

H319 Causes serious eye irritation.

· **Precautionary statements**

P280 Wear eye protection / face 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.

· **Directive 2012/18/EU**· **Named dangerous substances - ANNEX I** None of the ingredients is listed.· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations**· **Water hazard class:**

Water hazard class 1 (Self-assessment): weakly water-endangering.

· **Other regulations, limitations and prohibitive regulations**· **Substances of very high concern (SVHC) according to REACH, Article 57**

12179-04-3 | disodium tetraborate pentahydrate

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

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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**

H319 Causes serious eye irritation.

H360FD May damage fertility. May damage the unborn child.

- **Recommended restriction of use** No public product, only for commercial use

- **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 relatif au transport international 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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

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

Repr. 1B: Reproductive toxicity – Category 1B

- **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>

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

- **1.1 Product identifier**
 - **Trade name: T 93 Teil 2**
 - **UFI: 6YD1-A05A-J00P-H8D4**
- **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**
 Photo chemicals
 Photographic developer
 Reserved for industrial and professional use.
- **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: rs@calbe-chemie.de
- **1.4 Emergency telephone number:**
 Tel.: +49 (0) 700-24112112 (CAL)
 Tel.: +1 872 5888271(CAL)

SECTION 2: Hazards identification

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



GHS08 health hazard

Muta. 2	H341 Suspected of causing genetic defects.
Carc. 2	H351 Suspected of causing cancer.



GHS05 corrosion

Eye Dam. 1	H318 Causes serious eye damage.
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GHS09 environment

Aquatic Acute 1	H400 Very toxic to aquatic life.
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GHS07

Acute Tox. 4

H302 Harmful if swallowed.

Skin Sens. 1

H317 May cause an allergic skin reaction.

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

· **2.2 Label elements**

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

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

· **Hazard pictograms**



GHS05 GHS07 GHS08 GHS09

· **Signal word** Danger

· **Hazard statements**

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P273 Avoid release to the environment.

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.

P310 Immediately call a POISON CENTER/doctor.

P333+P313 If skin irritation or rash occurs: 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.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

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

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· Dangerous components:

CAS: 123-31-9 EINECS: 204-617-8	hydroquinone  Muta. 2, H341; Carc. 2, H351  Eye Dam. 1, H318  Aquatic Acute 1, H400 (M=10)  Acute Tox. 4, H302; Skin Sens. 1, H317	75 - 100%
CAS: 92-43-3 EINECS: 202-155-1	1-phenyl-3-pyrazolidone  Aquatic Chronic 2, H411  Acute Tox. 4, H302	5 - 10%
CAS: 7681-57-4 EINECS: 231-673-0	disodium disulphite  Eye Dam. 1, H318  Acute Tox. 4, H302 EUH031	≥ 3 - ≤ 5%

· **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**

Personal protection for the First Aider.

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

Instantly remove any clothing soiled by the product.

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

· **After skin contact**

Clean with water and soap. If possible, also wash with polyethylene glycol 400.

· **After eye contact**

Rinse opened eye for several minutes under running water (> 15 min). Then consult doctor.

· **After swallowing**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious).

Drink plenty of water.

Induce vomiting.

A person vomiting while lying on their back should be turned onto their side.

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

To date, there are no known symptoms.

· **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**
CO₂, extinguishing powder or water jet. Fight larger fires with water spray jet or alcohol-resistant foam.
- **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
Carbon monoxide
Sulphur oxides (SO_x)
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
If toxic gases occur:
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:**
Do not allow to enter drainage system, surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Collect mechanically.
Dispose of contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
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**
Do not handle until all safety precautions have been read and understood.
Open and handle container with care.
Prevent formation of dust.
- **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.

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- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed containers.
- **Recommended storage temperature:** 5-25 °C
- **Storage class** 13
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

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

123-31-9 hydroquinone

OEL (Ireland)	Long-term value: 0.5 mg/m ³ Sens
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7681-57-4 disodium disulphite

OEL (Ireland)	Long-term value: 5 mg/m ³
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· **Additional information:**

The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures**
 Keep away from foodstuffs, beverages and food.
 Do not eat, drink or smoke while working.
 Clean skin thoroughly immediately after handling the product.
 Take off immediately all contaminated clothing.
 Wash contaminated clothing before reuse.
 Use skin protection cream for preventive skin protection.
 Avoid contact with the eyes.

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

· **Hand protection**

Protective gloves.

The protective gloves to be used must comply with the specifications of the (EU) 2016/425 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

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- Avoid natural rubber gloves.
- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
 Synthetic gloves
 Value for permeation: Level:
 ≥ 3 (60 min)
 - **Eye/face protection** Tightly sealed safety glasses.
 - **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

- | | |
|-------------------------------------------------------------------|--------------------|
| · Colour: | Whitish |
| · Odour: | Not characteristic |
| · Melting point/freezing point: | Not determined |
| · Boiling point or initial boiling point and boiling range | Not determined |
| · Flash point: | Not applicable |
| · Viscosity: | |
| · Kinematic viscosity | Not determined |
| · dynamic: | Not determined |
| · Solubility | |
| · Water at 20 °C: | 50 g/l |
| · Density and/or relative density | |
| · Density | Not determined |
| · Particle characteristics | |
| See section 3. | |

· 9.2 Other information

No further relevant information available.

- | | |
|----------------------------------------------------------------------------------------|------------------------------|
| · Appearance: | |
| · Form: | Solid. |
| · Important information on protection of health and environment, and on safety. | |
| · Self-inflammability: | Product is not selfigniting. |
| · Explosive properties: | Product is not explosive. |
| · Solvent content: | |
| · Solids content: | 100 % |
| · Change in condition | |
| · Softening point/range | |
| · Oxidising properties | None |

· Information with regard to physical hazard classes

- | | |
|--------------------------|------|
| · Explosives | Void |
| · Flammable gases | Void |

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· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

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 strong acids and alkali
Reacts with 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:**
No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity**
Harmful if swallowed.

· LD/LC50 values that are relevant for classification:		
---------------------------------------------------------------	--	--

123-31-9 hydroquinone		
------------------------------	--	--

Oral	LD50	320 mg/kg (rat)
Dermal	LD50	>900 mg/kg (rat)

92-43-3 1-phenyl-3-pyrazolidone		
----------------------------------------	--	--

Oral	LD50	200 mg/kg (rat)
------	------	-----------------

7681-57-4 disodium disulphite		
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Oral	LD50	3200 mg/kg (rat)
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- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Germ cell mutagenicity**
Suspected of causing genetic defects.
- **Carcinogenicity**
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure**
Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
At present there are no animal experimental data.
This statement was deduced from the properties of the single components.
- **11.2 Information on other hazards**

· Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

123-31-9 hydroquinone

EC50/48 h	0.29 mg/l (Daphnia magna)
IC50/72 h	0.335 mg/l (Selenastrum capricornutum)
LC50/96 h	0.044 mg/l (Pimephales promelas)

92-43-3 1-phenyl-3-pyrazolidone

LC50/96 h	1-10 mg/l (Pimephales promelas)
-----------	---------------------------------

7681-57-4 disodium disulphite

EC50/48 h	89 mg/l (Daphnia magna)
LC50/96 h	32 mg/l (Lepomis macrochirus)

· 12.2 Persistence and degradability Not determined

- **Behaviour in environmental systems:** Not determined
- **12.3 Bioaccumulative potential** Not determined
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

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- **12.7 Other adverse effects**

- **Ecotoxic effects:** No further relevant information available.

- **Behaviour in sewage processing plants:** Not determined

- **Additional ecological information:**

- **General notes:**

At present there are no ecotoxicological assessments.

Water hazard class 3 (German Regulation) (Self-assessment): highly water-endangering.

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

Danger to drinking water if even small quantities leak into soil.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

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.

- **European waste catalogue**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 08*	discarded organic chemicals consisting of or containing hazardous substances
HP4	Irritant - skin irritation and eye damage
HP6	Acute Toxicity
HP7	Carcinogenic
HP11	Mutagenic
HP13	Sensitising
HP14	Ecotoxic

- **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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SECTION 14: Transport information

· 14.1 UN number or ID number	
· ADR/RID, IMDG, IATA	UN 3077
· 14.2 UN proper shipping name	
· ADR/RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (hydroquinone, 1-phenyl-3-pyrazolidone)
· IMDG, IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Hydroquinone, 1-Phenyl-3-pyrazolidinone)
· 14.3 Transport hazard class(es)	
· ADR/RID, IMDG, IATA	
	 
· Class	9 Miscellaneous dangerous substances and articles.
· Label	9
· 14.4 Packing group	
· ADR/RID, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR/RID):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
· Kemler Number:	90
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	These substances when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 l or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general. See the following notes.
· ADR/RID	Goods are not subject to the provisions in accordance with the special provision 375 ADR.

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· IMDG	Goods are not subject to the provisions in accordance with 2.10.2.7 IMDG-Code.
· IATA	Goods are not subject to the provisions in accordance with the special provision A197 IATA-DGR.
· UN "Model Regulation":	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (HYDROQUINONE, 1-PHENYL-3-PYRAZOLIDONE), 9, III

SECTION 15: Regulatory information

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

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

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

- **Hazard pictograms**



GHS05 GHS07 GHS08 GHS09

- **Signal word** Danger

- **Hazard statements**

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

H410 Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**

P273 Avoid release to the environment.

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.

P310 Immediately call a POISON CENTER/doctor.

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

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

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

- **Seveso category** E1 Hazardous to the Aquatic Environment

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

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· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations**

· **Information about limitation of use:**

Employment restrictions concerning pregnant and lactating women must be observed.

· **Decree to be applied in case of technical fault:**

Class	Share in %
I	90.4

· **Water hazard class:**

Water danger class 3 (Self-assessment): highly 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**

- H302 Harmful if swallowed.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- EUH031 Contact with acids liberates toxic gas.

· **Version number of previous version: 7.0**

· **Abbreviations and acronyms:**

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

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ICAO: International Civil Aviation Organisation
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 4: Acute toxicity – Category 4
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Muta. 2: Germ cell mutagenicity – Category 2
 Carc. 2: Carcinogenicity – Category 2
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 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>

— IRL —