

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

- **1.1 Product identifier**
- **Trade name:** *SW 28xx Series: xx= 00; 01; 10; 20; 30; 31; 40; 50; 60; 65; 70; 71*
- **Article number:** *100000001220*
- **Registration number**
The ingredients of this product meet the criteria of the Regulation 1907/2006/EC (REACH).
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Currently no such applications are identified.
- **Application of the substance / the mixture** *water based Fibrepen Ink*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*DOKUMENTAL GmbH & Co KG
Woellnerstraße 26
D-67065 Ludwigshafen
Phone + 49(0)621/37702 321
Fax + 49(0)621/37702 391
www.dokumental.de*
- **Further information obtainable from:**
*Technical Service & Product Safety
Tel.: +49-621-37702 390
E-Mail: msds@dokumental.de*
- **1.4 Emergency telephone number:**
*GBK Gefahrgut Büro GmbH
+49 (0) 6132 / 84463
Ingelheim, Deutschland*

SECTION 2: Hazards identification

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



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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**



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- **Signal word** *Warning*
- **Hazard-determining components of labelling:**
2-octyl-2H-isothiazol-3-one
- **Hazard statements**
*H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.*
- **Precautionary statements**
*P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see on this label).
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 substances listed below with nonhazardous additions.*

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Trade name: SW 28xx Series: xx= 00; 01; 10; 20; 30; 31; 40; 50; 60; 65; 70; 71

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• Dangerous components:		
CAS: 52-51-7 EINECS: 200-143-0 Reg.nr.: 01-2119980938-15	bronopol (INN) ☠ Eye Dam. 1, H318; ☠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); ☠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; STOT SE 3, H335	<0.1%
CAS: 26530-20-1 EINECS: 247-761-7	2-octyl-2H-isothiazol-3-one ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; ☠ Skin Corr. 1, H314; Eye Dam. 1, H318; ☠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ☠ Skin Sens. 1A, H317, EUH071 ATE: LD50 oral: 125 mg/kg LD50 dermal: 311 mg/kg LC50/4 h inhalative: 0.27 mg/l Specific concentration limit: Skin Sens. 1A; H317: C ₂ ≥ 0.0015 %	0.0015-<0.005%

• **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:** Immediately remove any clothing soiled by the product.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

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

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class:** 12

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Trade name: SW 28xx Series: xx= 00; 01; 10; 20; 30; 31; 40; 50; 60; 65; 70; 71

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

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists valid during the making 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:
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
- Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Hand protection



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- If only a short-term loading of the glove material by splashes is expected, tricoted gloves with higher wearability for the better acceptance of the users are recommended.
- Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Nitrile rubber, NBR
 - Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - Eye/face protection Goggles recommended during refilling

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- General Information
- Physical state
Fluid
- Colour:
According to product specification
- Odour:
Product specific
- Odour threshold:
Not determined.
- Melting point/freezing point:
Undetermined.
- Boiling point or initial boiling point and boiling range
100 °C (7732-18-5 water, distilled, conductivity or of similar purity)
Not applicable.
- Flammability
- Lower and upper explosion limit
- Lower:
Not determined.
- Upper:
Not determined.
- Flash point:
Not applicable.
- Decomposition temperature:
Not determined.
- pH at 20 °C
7
- Viscosity:
Not determined.
- Kinematic viscosity
2.5 mPas
- Dynamic at 20 °C:
- Solubility
- water:
Fully miscible.
- Partition coefficient n-octanol/water (log value)
Not determined.
- Vapour pressure at 20 °C:
23 hPa (7732-18-5 water, distilled, conductivity or of similar purity)
- Density and/or relative density
- Density at 20 °C:
1 g/cm³

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Trade name: SW 28xx Series: xx= 00; 01; 10; 20; 30; 31; 40; 50; 60; 65; 70; 71

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• Relative density	Not determined.
• Vapour density	Not determined.
• 9.2 Other information	The physical and chemical properties given in Section 9.1 are rough data only, which are partially derived from the component's data of the mixture. These data are no binding product specifications.
• Appearance:	
• Form:	Fluid
• Important information on protection of health and environment, and on safety.	-
• Ignition temperature:	Product is not selfigniting.
• Explosive properties:	Not determined.
• Solvent content:	
• Organic solvents:	0.9 %
• Water:	36.0 %
• Change in condition	
• Evaporation rate	Not determined.
• Information with regard to physical hazard classes	
• Explosives	none
• Flammable gases	none
• Aerosols	none
• Oxidising gases	none
• Gases under pressure	none
• Flammable liquids	none
• Flammable solids	none
• Self-reactive substances and mixtures	none
• Pyrophoric liquids	none
• Pyrophoric solids	none
• Self-heating substances and mixtures	none
• Substances and mixtures, which emit flammable gases in contact with water	none
• Oxidising liquids	none
• Oxidising solids	none
• Organic peroxides	none
• Corrosive to metals	none
• Desensitised explosives	none

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 hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **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** May cause an allergic skin reaction.
- **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.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**
None of the ingredients is listed.

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SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **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**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|---|-----------------|
| • 14.1 UN number or ID number | |
| • ADR, ADN, IMDG, IATA | not applicable |
| • 14.2 UN proper shipping name | |
| • ADR, ADN, IMDG, IATA | not applicable |
| • 14.3 Transport hazard class(es) | |
| • ADR, ADN, IMDG, IATA | |
| • Class | not applicable |
| • 14.4 Packing group | |
| • ADR, IMDG, IATA | not applicable |
| • 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. |
| • UN "Model Regulation": | not applicable |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **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.

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· **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:**

· **Technical instructions (air):**

Class	Share in %
NK	0.1-<1

- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

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

· **Relevant phrases**

H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
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.
H318 Causes serious eye damage.
H330 Fatal if inhaled.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
EUH071 Corrosive to the respiratory tract.

· **Abbreviations and acronyms:**

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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 3: Acute toxicity - Category 3
Acute Tox. 4: Acute toxicity - Category 4
Acute Tox. 2: Acute toxicity - Category 2
Skin Corr. 1: Skin corrosion/irritation - Category 1
Skin Irrit. 2: Skin corrosion/irritation - Category 2
Eye Dam. 1: Serious eye damage/eye irritation - Category 1
Skin Sens. 1: Skin sensitisation - Category 1
Skin Sens. 1A: Skin sensitisation - Category 1A
STOT SE 3: Specific target organ toxicity (single exposure) - Category 3
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

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

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

- 1.1 Product identifier
- Trade name: **NT 5xx.1 Series; xx = 00;01;10;11;20;21;22;30;31;32;40;50;51;52;60;61;62;63;70;71;80**
- Article number: 100000002897
- Registration number
The ingredients of this product meet the criteria of the Regulation 1907/2006/EC (REACH).
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Currently no such applications are identified.
- Application of the substance / the mixture water based Fibrepen Ink
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
DOKUMENTAL GmbH & Co KG
Woellnerstraße 26
D-67065 Ludwigshafen
Phone + 49(0)621/37702 321
Fax + 49(0)621/37702 391
www.dokumental.de
- Further information obtainable from:
Technical Service & Product Safety
Tel.: +49-621-37702 390
E-Mail: msds@dokumental.de
- 1.4 Emergency telephone number:
GBK Gefahrgut Büro GmbH
+49 (0) 6132 / 84463
Ingelheim, Deutschland

SECTION 2: Hazards identification

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



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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



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- Signal word Warning
- Hazard-determining components of labelling:
2-octyl-2H-isothiazol-3-one
- Hazard statements
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P321 Specific treatment (see on this label).
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 substances listed below with nonhazardous additions.

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Trade name: NT 5xx.1 Series; xx = 00;01;10;11;20;21;22;30;31;32;40;50;51;52;60;61;62;63;70;71;80

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Dangerous components:		
CAS: 18472-87-2 EINECS: 242-355-6 Reg.nr.: 01-2120115907-54	C.I. Acid Red 92 ⚠ Aquatic Acute 1, H400	0-<3%
CAS: 52-51-7 EINECS: 200-143-0 Reg.nr.: 01-2119980938-15	bronopol (INN) ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; STOT SE 3, H335	<0.1%
CAS: 26530-20-1 EINECS: 247-761-7	2-octyl-2H-isothiazol-3-one ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330; ⚠ Skin Corr. 1, H314; Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400 (M=100); Aquatic Chronic 1, H410 (M=100); ⚠ Skin Sens. 1A, H317, EUH071 ATE: LD50 oral: 125 mg/kg LD50 dermal: 311 mg/kg LC50/4 h inhalative: 0.27 mg/l Specific concentration limit: Skin Sens. 1A; H317: C ₂ ≥ 0.0015 %	0.0015-<0.005%

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:** Immediately remove any clothing soiled by the product.
- After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- After eye contact:** Rinse opened eye for several minutes under running water.
- After swallowing:** If symptoms persist consult doctor.
- 4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media**
- Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- 5.3 Advice for firefighters**
- Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

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

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- Information about fire - and explosion protection:** No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities**
- Storage:**
Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility:** Not required.
- Further information about storage conditions:** None.

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Trade name: NT 5xx.1 Series; xx = 00;01;10;11;20;21;22;30;31;32;40;50;51;52;60;61;62;63;70;71;80

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- **Storage class:** 10
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making 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:**
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Hand protection**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
If only a short-term loading of the glove material by splashes is expected, tricoted gloves with higher wearability for the better acceptance of the users are recommended.
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Nitrile rubber, NBR
 - **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - **Eye/face protection** Goggles recommended during refilling

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Physical state** Fluid
- **Colour:** According to product specification
- **Odour:** Product specific
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Undetermined.
- **Boiling point or initial boiling point and boiling range** 100 °C (7732-18-5 water, distilled, conductivity or of similar purity)
Not applicable.
- **Flammability**
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** Not applicable.
- **Auto-ignition temperature:** 400 °C (56-81-5 glycerol)
- **Decomposition temperature:** Not determined.
- **pH at 20 °C** 8.5
- **Viscosity:**
- **Kinematic viscosity** Not determined.
- **Dynamic:** Not determined.
- **Solubility**
- **water:** Fully miscible.
- **Partition coefficient n-octanol/water (log value)** Not determined.
- **Vapour pressure at 20 °C:** 23 hPa (7732-18-5 water, distilled, conductivity or of similar purity)

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Trade name: NT 5xx.1 Series; xx = 00;01;10;11;20;21;22;30;31;32;40;50;51;52;60;61;62;63;70;71;80

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- Density and/or relative density - Density at 20 °C: - Relative density - Vapour density	1.1 g/cm³ Not determined. Not determined.
9.2 Other information - Appearance: - Form: - Important information on protection of health and environment, and on safety. - Ignition temperature: - Explosive properties: - Change in condition - Evaporation rate	The physical and chemical properties given in Section 9.1 are rough data only, which are partially derived from the component's data of the mixture. These data are no binding product specifications. Fluid - Product is not selfigniting. Not determined. Not determined.
- Information with regard to physical hazard classes - Explosives - Flammable gases - Aerosols - Oxidising gases - Gases under pressure - Flammable liquids - Flammable solids - Self-reactive substances and mixtures - Pyrophoric liquids - Pyrophoric solids - Self-heating substances and mixtures - Substances and mixtures, which emit flammable gases in contact with water - Oxidising liquids - Oxidising solids - Organic peroxides - Corrosive to metals - Desensitised explosives	none none none none none none none none none none none none none none none none none

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 hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Based on available data, the classification criteria are not met.
- 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 May cause an allergic skin reaction.
- 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.
- 11.2 Information on other hazards
- Endocrine disrupting properties
- None of the ingredients is listed.

Trade name: NT 5xx.1 Series; xx = 00;01;10;11;20;21;22;30;31;32;40;50;51;52;60;61;62;63;70;71;80

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SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **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**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|---|-----------------|
| • 14.1 UN number or ID number | |
| • ADR, ADN, IMDG, IATA | not applicable |
| • 14.2 UN proper shipping name | |
| • ADR, ADN, IMDG, IATA | not applicable |
| • 14.3 Transport hazard class(es) | |
| • ADR, ADN, IMDG, IATA | |
| • Class | not applicable |
| • 14.4 Packing group | |
| • ADR, IMDG, IATA | not applicable |
| • 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. |
| • UN "Model Regulation": | not applicable |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **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.

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EU

Trade name: NT 5xx.1 Series; xx = 00;01;10;11;20;21;22;30;31;32;40;50;51;52;60;61;62;63;70;71;80

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· 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:

· Technical instructions (air):

Class	Share in %
NK	10-<25

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

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

SECTION 16: Other information

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

· Relevant phrases

H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H311 Toxic in contact with skin.
 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.
 H318 Causes serious eye damage.
 H330 Fatal if inhaled.
 H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 EUH071 Corrosive to the respiratory tract.

· Abbreviations and acronyms:

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)
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Acute Tox. 3: Acute toxicity - Category 3
 Acute Tox. 4: Acute toxicity - Category 4
 Acute Tox. 2: Acute toxicity - Category 2
 Skin Corr. 1: Skin corrosion/irritation - Category 1
 Skin Irrit. 2: Skin corrosion/irritation - Category 2
 Eye Dam. 1: Serious eye damage/eye irritation - Category 1
 Skin Sens. 1: Skin sensitisation - Category 1
 Skin Sens. 1A: Skin sensitisation - Category 1A
 STOT SE 3: Specific target organ toxicity (single exposure) - Category 3
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

· * Data compared to the previous version altered.