

# Safety Data Sheet according to (EC) No 1907/2006 as amended

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Loctite 4850

SDS No. : 313072 V003.0 Revision: 09.11.2023 printing date: 13.11.2023 Replaces version from: 22.12.2022

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

#### **1.1. Product identifier** Loctite 4850

# **1.2. Relevant identified uses of the substance or mixture and uses advised against** Intended use:

Adhesive

# 1.3. Details of the supplier of the safety data sheet

Henkel AG & Co. KGaA Henkelstr. 67 40589 Düsseldorf

Germany

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For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

## **1.4. Emergency telephone number**

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

## **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

## Classification (CLP):

| Skin irritation                                  | Category 2 |
|--|------------|
| H315 Causes skin irritation.                     |            |
| Serious eye irritation                           | Category 2 |
| H319 Causes serious eye irritation.              |            |
| Skin sensitizer                                  | Category 1 |
| H317 May cause an allergic skin reaction.        |            |
| Specific target organ toxicity - single exposure | Category 3 |
| H335 May cause respiratory irritation.           |            |
| Target organ: respiratory tract irritation       |            |

#### 2.2. Label elements

Label elements (CLP):

| Hazard pictogram:                      |  |
|--|--|
| Contains                               | Ethyl 2-cyanoacrylate  |
|  | Triethyl O-acetylcitrate   |
| Signal word:                           | Warning  |
| Hazard statement:                      | <ul><li>H315 Causes skin irritation.</li><li>H317 May cause an allergic skin reaction.</li><li>H319 Causes serious eye irritation.</li><li>H335 May cause respiratory irritation.</li></ul>  |
| Supplemental information               | Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.  |
| Precautionary statement:<br>Prevention | P261 Avoid breathing vapors.<br>P280 Wear protective gloves/eye protection.  |
| Precautionary statement:<br>Response   | P333+P313 If skin irritation or rash occurs: Get medical advice/attention.<br>P337+P313 If eye irritation persists: Get medical advice/attention.<br>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Precautionary statement:<br>Disposal   | P501 Dispose of contents/container in accordance with national regulation.   |

#### 2.3. Other hazards

None if used properly.

Following substances are present in a concentration  $\geq$  the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration  $\geq$  the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

## **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

#### Declaration of the ingredients according to CLP (EC) No 1272/2008:

| Hazardous components<br>CAS-No.<br>EC Number<br>REACH-Reg No.        | Concentration | Classification   | Specific Conc. Limits, M-<br>factors and ATEs | Add.<br>Information |
|--|---------------|--|---|---------------------|
| Ethyl 2-cyanoacrylate<br>7085-85-0<br>230-391-5<br>01-2119527766-29  | 25- 50 %      | Eye Irrit. 2, H319<br>STOT SE 3, H335<br>Skin Irrit. 2, H315   | STOT SE 3; H335; C >= 10 %                    |                     |
| Triethyl O-acetylcitrate<br>77-89-4<br>201-066-5<br>01-2120763425-52 | 25- 50 %      | Skin Sens. 1, H317   |   |                     |
| Hydroquinone<br>123-31-9<br>204-617-8<br>01-2119524016-51            | 0,01-< 0,1 %  | Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>Carc. 2, H351<br>Muta. 2, H341<br>Acute Tox. 4, Oral, H302<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317 | M acute = 10<br>M chronic = 1                 |                     |

If no ATE values are displayed, please refer to LD/LC50 values in Section 11. For full text of the H - statements and other abbreviations see section 16 "Other information".

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

If lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth.

Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action.

Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn.

Burns should be treated normally after the adhesive has been removed from the skin.

Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water.

Eye contact:

If the eye is bonded closed, release eyelashes with warm water by covering with wet pad.

Keep eye covered until debonding is complete, usually within 1-3 days.

Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive.

Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.

Ingestion:

Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).

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

EYE: Irritation, conjunctivitis.

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

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

See section: Description of first aid measures

## **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

Suitable extinguishing media: Foam, extinguishing powder, carbon dioxide. Fine water spray

**Extinguishing media which must not be used for safety reasons:** None known

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#### 5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released. **5.3. Advice for firefighters** 

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

#### **Additional information:**

In case of fire, keep containers cool with water spray.

#### **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Ensure adequate ventilation. Wear protective equipment.

#### **6.2. Environmental precautions**

Do not empty into drains / surface water / ground water.

#### 6.3. Methods and material for containment and cleaning up

Do not use cloths for mopping up. Flood with water to complete polymerization and scrape off the floor. Cured material can be disposed of as non-hazardous waste.

Dispose of contaminated material as waste according to Section 13.

#### 6.4. Reference to other sections

See advice in section 8

## **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

Avoid skin and eye contact. Ventilation (low level) is recommended when using large volumes Use of dispensing equipment is recommended to minimise the risk of skin or eye contact See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working. Good industrial hygiene practices should be observed.

#### 7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. Refer to Technical Data Sheet

#### 7.3. Specific end use(s)

Adhesive

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

## **Occupational Exposure Limits**

Valid for

Germany

None

## Predicted No-Effect Concentration (PNEC):

| Name on list | Environmental<br>Compartment | Exposure<br>period | Value     |     |         |        | Remarks |
|--------------|------------------------------|--------------------|-----------|-----|---------|--------|---------|
|              | Compartment                  | periou             | mg/l      | ppm | mg/kg   | others |         |
| Hydroquinone | aqua                         |                    | 0,00057   |     |         |        |         |
| 123-31-9     | (freshwater)                 |                    | mg/l      |     |         |        |         |
| Hydroquinone | aqua (marine                 |                    | 0,000057  |     |         |        |         |
| 123-31-9     | water)                       |                    | mg/l      |     |         |        |         |
| Hydroquinone | sediment                     |                    |           |     | 0,0049  |        |         |
| 123-31-9     | (freshwater)                 |                    |           |     | mg/kg   |        |         |
| Hydroquinone | sediment                     |                    |           |     | 0,00049 |        |         |
| 123-31-9     | (marine water)               |                    |           |     | mg/kg   |        |         |
| Hydroquinone | aqua                         |                    | 0,00134   |     |         |        |         |
| 123-31-9     | (intermittent                |                    | mg/l      |     |         |        |         |
|              | releases)                    |                    | -         |     |         |        |         |
| Hydroquinone | Soil                         |                    |           |     | 0,00064 |        |         |
| 123-31-9     |                              |                    |           |     | mg/kg   |        |         |
| Hydroquinone | sewage                       |                    | 0,71 mg/l |     |         |        |         |
| 123-31-9     | treatment plant              |                    | Ũ         |     |         |        |         |
|              | (STP)                        |                    |           |     |         |        |         |

## Derived No-Effect Level (DNEL):

| Name on list                       | Application<br>Area   | Route of<br>Exposure | Health Effect                               | Exposure<br>Time | Value      | Remarks |
|------------------------------------|-----------------------|----------------------|---|------------------|------------|---------|
| Ethyl 2-cyanoacrylate<br>7085-85-0 | Workers               | Inhalation           | Long term<br>exposure - local<br>effects    |                  | 9,25 mg/m3 |         |
| Ethyl 2-cyanoacrylate<br>7085-85-0 | Workers               | Inhalation           | Long term<br>exposure -<br>systemic effects |                  | 9,25 mg/m3 |         |
| Ethyl 2-cyanoacrylate<br>7085-85-0 | General population    | Inhalation           | Long term<br>exposure - local<br>effects    |                  | 9,25 mg/m3 |         |
| Ethyl 2-cyanoacrylate<br>7085-85-0 | General population    | Inhalation           | Long term<br>exposure -<br>systemic effects |                  | 9,25 mg/m3 |         |
| Hydroquinone<br>123-31-9           | Workers               | dermal               | Long term<br>exposure -<br>systemic effects |                  | 3,33 mg/kg |         |
| Hydroquinone<br>123-31-9           | Workers               | inhalation           | Long term<br>exposure -<br>systemic effects |                  | 2,1 mg/m3  |         |
| Hydroquinone<br>123-31-9           | General population    | dermal               | Long term<br>exposure -<br>systemic effects |                  | 1,66 mg/kg |         |
| Hydroquinone<br>123-31-9           | General<br>population | inhalation           | Long term<br>exposure -<br>systemic effects |                  | 1,05 mg/m3 |         |
| Hydroquinone<br>123-31-9           | General<br>population | oral                 | Long term<br>exposure -<br>systemic effects |                  | 0,6 mg/kg  |         |

#### **Biological Exposure Indices:** None

#### 8.2. Exposure controls:

Engineering controls: Ensure good ventilation/extraction.

Respiratory protection: Ensure adequate ventilation. An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Polyethylene or polypropylene gloves are recommended when using large volumes.

Do not use PVC, rubber or nylon gloves.

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing. Protective eye equipment should conform to EN166.

Skin protection: Wear suitable protective clothing. Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

#### **SECTION 9: Physical and chemical properties**

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

| Delivery form              | liquid  |
|----------------------------|---|
| Colour                     | colourless, Clear                             |
| Odor                       | irritating                                    |
| Physical state             | liquid  |
| Melting point              | Not applicable, Product is a liquid           |
| Solidification temperature | < -25 °C (< -13 °F)                           |
| Initial boiling point      | > 149 °C (> 300.2 °F)None                     |
| Flammability               | The product is not flammable.                 |
| Explosive limits           | Not applicable, The product is not flammable. |
| Flash point                | 80 - 93,0 °C (176 - 199.4 °F); None           |
| Auto-ignition temperature  | 485 °C (905 °F)                               |

| nixture is not self-reactive, no organic<br>npose under foreseen conditions of use |
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## 9.2. Other information

Other information not applicable for this product

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

### 10.2. Chemical stability

Stable under recommended storage conditions.

## 10.3. Possibility of hazardous reactions

See section reactivity

#### **10.4.** Conditions to avoid

Stable under normal conditions of storage and use.

#### **10.5. Incompatible materials**

See section reactivity.

#### 10.6. Hazardous decomposition products

None if used for intended purpose.

## **SECTION 11: Toxicological information**

#### General toxicological information:

Cyanoacrylates are considered to have relatively low toxicity. Acute oral LD50 is >5000mg/kg (rat). It is almost impossible to swallow as it rapidly polymerises in the mouth.

Prolonged exposure to high concentrations of vapours may lead to chronic effects in sensitive individuals In dry atmosphere with < 50% humidity, vapours may irritate the eyes and respiratory system

#### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances     | Value | Value         | Species | Method  |
|--------------------------|-------|---------------|---------|---|
| CAS-No.                  | type  |               |         |   |
| Ethyl 2-cyanoacrylate    | LD50  | > 5.000 mg/kg | rat     | equivalent or similar to OECD Guideline 423 (Acute Oral |
| 7085-85-0                |       |               |         | toxicity)   |
| Triethyl O-acetylcitrate | LD50  | > 7.000 mg/kg | rat     | not specified   |
| 77-89-4                  |       |               |         | *   |
| Hydroquinone             | LD50  | 367 mg/kg     | rat     | OECD Guideline 401 (Acute Oral Toxicity)                |
| 123-31-9                 |       | 6 8           |         |   |

#### Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

| Hazardous substances  | Value | Value         | Species | Method   |
|-----------------------|-------|---------------|---------|--|
| CAS-No.               | type  |               |         |  |
| Ethyl 2-cyanoacrylate | LD50  | > 2.000 mg/kg | rabbit  | equivalent or similar to OECD Guideline 402 (Acute |
| 7085-85-0             |       |               |         | Dermal Toxicity)                                   |
| Hydroquinone          | LD50  | > 2.000 mg/kg | rabbit  | OECD Guideline 402 (Acute Dermal Toxicity)         |
| 123-31-9              |       |               |         |  |

#### Acute inhalative toxicity:

No data available.

#### Skin corrosion/irritation:

Bonds skin in seconds. Considered to be of low toxicity: acute dermal LD50 (rabbit)>2000mg/kg Due to polymerisation at the skin surface allergic reaction is unlikely to occur

| Hazardous substances<br>CAS-No.     | Result         | Exposure<br>time | Species | Method   |
|-------------------------------------|----------------|------------------|---------|--|
| Ethyl 2-cyanoacrylate               | slightly       | 24 h             | rabbit  | equivalent or similar to OECD Guideline 404 (Acute |
| 7085-85-0                           | irritating     |                  |         | Dermal Irritation / Corrosion)                     |
| Triethyl O-acetylcitrate<br>77-89-4 | not irritating |                  | rabbit  | not specified                                      |
| Hydroquinone<br>123-31-9            | not irritating | 24 h             | rabbit  | Weight of evidence                                 |

#### Serious eye damage/irritation:

Liquid product will bond eyelids. In a dry atmosphere (RH<50%) vapours may cause irritation and lachrymatory effect

| Hazardous substances<br>CAS-No.     | Result         | Exposure<br>time | Species | Method   |
|-------------------------------------|----------------|------------------|---------|--|
| Ethyl 2-cyanoacrylate<br>7085-85-0  | irritating     |                  | rabbit  | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Triethyl O-acetylcitrate<br>77-89-4 | not irritating |                  | rabbit  | not specified  |

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## Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.    | Result          | Test type                             | Species    | Method   |
|------------------------------------|-----------------|---------------------------------------|------------|--|
| Ethyl 2-cyanoacrylate<br>7085-85-0 | not sensitising | Skin sensitisation                    | guinea pig | not specified  |
| Hydroquinone<br>123-31-9           | sensitising     | Guinea pig maximisation test          | guinea pig | equivalent or similar to OECD Guideline<br>406 (Skin Sensitisation)                            |
| Hydroquinone<br>123-31-9           | sensitising     | Mouse local lymphnode<br>assay (LLNA) | mouse      | equivalent or similar to OECD Guideline<br>429 (Skin Sensitisation: Local Lymph<br>Node Assay) |

## Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.     | Result   | Type of study /<br>Route of<br>administration          | Metabolic<br>activation /<br>Exposure time | Species | Method   |
|-------------------------------------|----------|--|--|---------|--|
| Ethyl 2-cyanoacrylate<br>7085-85-0  | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | equivalent or similar to OECD<br>Guideline 471 (Bacterial<br>Reverse Mutation Assay)                       |
| Ethyl 2-cyanoacrylate<br>7085-85-0  | negative | in vitro mammalian<br>chromosome<br>aberration test    | with and without                           |         | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)                                   |
| Ethyl 2-cyanoacrylate<br>7085-85-0  | negative | mammalian cell<br>gene mutation assay                  | with and without                           |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                      |
| Triethyl O-acetylcitrate<br>77-89-4 | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | OECD Guideline 471<br>(Bacterial Reverse Mutation<br>Assay)  |
| Triethyl O-acetylcitrate<br>77-89-4 | negative | in vitro mammalian<br>chromosome<br>aberration test    | with and without                           |         | equivalent or similar to OECD<br>Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)       |
| Triethyl O-acetylcitrate<br>77-89-4 | negative | mammalian cell<br>gene mutation assay                  | with and without                           |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                      |
| Hydroquinone<br>123-31-9            | negative | bacterial reverse<br>mutation assay (e.g<br>Ames test) | with and without                           |         | equivalent or similar to OECD<br>Guideline 471 (Bacterial<br>Reverse Mutation Assay)                       |
| Hydroquinone<br>123-31-9            | negative | in vitro mammalian<br>chromosome<br>aberration test    | with and without                           |         | OECD Guideline 473 (In vitro<br>Mammalian Chromosome<br>Aberration Test)                                   |
| Hydroquinone<br>123-31-9            | positive | mammalian cell<br>gene mutation assay                  | with and without                           |         | OECD Guideline 476 (In vitro<br>Mammalian Cell Gene<br>Mutation Test)                                      |
| Triethyl O-acetylcitrate<br>77-89-4 | negative | oral: gavage   |  | mouse   | equivalent or similar to OECD<br>Guideline 474 (Mammalian<br>Erythrocyte Micronucleus<br>Test)             |
| Hydroquinone<br>123-31-9            | positive | intraperitoneal  |  | mouse   | equivalent or similar to OECD<br>Guideline 474 (Mammalian<br>Erythrocyte Micronucleus<br>Test)             |
| Hydroquinone<br>123-31-9            | negative | oral: gavage   |  | rat     | equivalent or similar to OECD<br>Guideline 478 (Genetic<br>Toxicology: Rodent Dominant<br>Lethal Test)     |
| Hydroquinone<br>123-31-9            | positive | intraperitoneal  |  | mouse   | equivalent or similar to OECD<br>Guideline 483 (Mammalian<br>Spermatogonial Chromosome<br>Aberration Test) |

## Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous components<br>CAS-No.     | Result       | Route of application | Exposure<br>time /<br>Frequency<br>of treatment | Species | Sex         | Method  |
|-------------------------------------|--------------|----------------------|---|---------|-------------|---|
| Triethyl O-acetylcitrate<br>77-89-4 |              | oral: feed           | 2 y<br>daily                                    | rat     |             | not specified   |
| Hydroquinone<br>123-31-9            | carcinogenic | oral: gavage         | 103 w<br>5 d/w                                  | rat     | male/female | equivalent or similar<br>OECD Guideline 453<br>(Combined Chronic<br>Toxicity /<br>Carcinogenicity<br>Studies) |
| Hydroquinone<br>123-31-9            | carcinogenic | oral: gavage         | 103 w<br>5 d/w                                  | mouse   | female      | equivalent or similar<br>OECD Guideline 453<br>(Combined Chronic<br>Toxicity /<br>Carcinogenicity<br>Studies) |

## **Reproductive toxicity:**

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.     | Result / Value  | Test type                  | Route of application | Species | Method   |
|-------------------------------------|---|----------------------------|----------------------|---------|--|
| Triethyl O-acetylcitrate<br>77-89-4 | NOAEL P ca. 1.000 mg/kg<br>NOAEL F1 < 1.000 mg/kg<br>NOAEL F2 < 1.000 mg/kg |                            | oral: feed           | rat     | equivalent or similar to<br>OECD Guideline 416 (Two-<br>Generation Reproduction<br>Toxicity Study) |
| Hydroquinone<br>123-31-9            | NOAEL P 15 mg/kg<br>NOAEL F1 150 mg/kg<br>NOAEL F2 150 mg/kg                | Two<br>generation<br>study | oral: gavage         | rat     | EPA OTS 798.4700<br>(Reproduction and Fertility<br>Effects)  |

## STOT-single exposure:

No data available.

#### STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.     | Result / Value    | Route of application | Exposure time /<br>Frequency of<br>treatment | Species | Method  |
|-------------------------------------|-------------------|----------------------|--|---------|---|
| Triethyl O-acetylcitrate<br>77-89-4 | NOAEL > 300 mg/kg | oral: feed           | 90 d<br>daily                                | rat     | OECD Guideline 408<br>(Repeated Dose 90-Day<br>Oral Toxicity in Rodents)                        |
| Hydroquinone<br>123-31-9            | NOAEL 50 mg/kg    | oral: gavage         | 13 w<br>5 d/w                                | rat     | not specified   |
| Hydroquinone<br>123-31-9            | NOAEL 73,9 mg/kg  | dermal               | 13 w<br>6 h/d, 5 d/w                         | rat     | equivalent or similar to<br>OECD Guideline 411<br>(Subchronic Dermal<br>Toxicity: 90-Day Study) |

## Aspiration hazard:

No data available.

#### 11.2 Information on other hazards

not applicable

## **SECTION 12: Ecological information**

#### General ecological information:

Biological and Chemical Oxygen Demands (BOD and COD) are insignificant. Do not empty into drains / surface water / ground water.

#### 12.1. Toxicity

## Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value<br>type | Value      | Exposure time | Species | Method  |
|---------------------------------|---------------|------------|---------------|---------|---|
| Hydroquinone<br>123-31-9        | LC50          | 0,638 mg/l | 96 h          | 5 5     | OECD Guideline 203 (Fish,<br>Acute Toxicity Test) |

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.     | Value<br>type | Value      | Exposure time | Species       | Method   |
|-------------------------------------|---------------|------------|---------------|---------------|--|
| Triethyl O-acetylcitrate<br>77-89-4 | EC50          | > 100 mg/l | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |
| Hydroquinone<br>123-31-9            | EC50          | 0,134 mg/l | 48 h          | Daphnia magna | OECD Guideline 202<br>(Daphnia sp. Acute<br>Immobilisation Test) |

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value<br>type | Value       | Exposure time | Species | Method   |
|---------------------------------|---------------|-------------|---------------|---------|--|
| Hydroquinone<br>123-31-9        | NOEC          | 0,0057 mg/l | 21 d          | 1       | OECD 211 (Daphnia<br>magna, Reproduction Test) |

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances | Value | Value      | Exposure time | Species                        | Method                    |
|----------------------|-------|------------|---------------|--------------------------------|---------------------------|
| CAS-No.              | type  |            |               |                                |                           |
| Hydroquinone         | EC50  | 0,335 mg/l | 72 h          | Selenastrum capricornutum      | OECD Guideline 201 (Alga, |
| 123-31-9             |       | -          |               | (new name: Pseudokirchneriella | Growth Inhibition Test)   |
|                      |       |            |               | subcapitata)                   |                           |

## Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No. | Value<br>type | Value      | Exposure time | Species | Method        |
|---------------------------------|---------------|------------|---------------|---------|---------------|
| Hydroquinone<br>123-31-9        | EC 50         | 0,038 mg/l | 30 min        |         | not specified |

#### 12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.     | Result                     | Test type | Degradability | Exposure<br>time | Method   |
|-------------------------------------|----------------------------|-----------|---------------|------------------|--|
| Ethyl 2-cyanoacrylate<br>7085-85-0  | not readily biodegradable. | aerobic   | 57 %          | 28 d             | OECD Guideline 301 D (Ready<br>Biodegradability: Closed Bottle<br>Test)                    |
| Triethyl O-acetylcitrate<br>77-89-4 | inherently biodegradable   | aerobic   | 75 %          | 28 day           | OECD Guideline 301 F (Ready<br>Biodegradability: Manometric<br>Respirometry Test)          |
| Hydroquinone<br>123-31-9            | readily biodegradable      | aerobic   | 75 - 81 %     | 30 d             | EU Method C.4-E (Determination<br>of the "Ready"<br>BiodegradabilityClosed Bottle<br>Test) |

#### 12.3. Bioaccumulative potential

No substance data available. No data available.

#### 12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances<br>CAS-No.     | LogPow | Temperature | Method                                |
|-------------------------------------|--------|-------------|---------------------------------------|
| Ethyl 2-cyanoacrylate<br>7085-85-0  | 0,776  | 22 °C       | EU Method A.8 (Partition Coefficient) |
| Triethyl O-acetylcitrate<br>77-89-4 | 1,34   |             | not specified                         |
| Hydroquinone<br>123-31-9            | 0,59   |             | EU Method A.8 (Partition Coefficient) |

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

The table below presents the data of the classified substances present in the mixture.

| Hazardous substances     | PBT / vPvB   |
|--------------------------|--|
| CAS-No.                  |  |
| Ethyl 2-cyanoacrylate    | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 7085-85-0                | Bioaccumulative (vPvB) criteria.   |
| Triethyl O-acetylcitrate | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 77-89-4                  | Bioaccumulative (vPvB) criteria.   |
| Hydroquinone             | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very |
| 123-31-9                 | Bioaccumulative (vPvB) criteria.   |

#### **12.6. Endocrine disrupting properties**

not applicable

## 12.7. Other adverse effects

No data available.

## **SECTION 13: Disposal considerations**

#### **13.1.** Waste treatment methods

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Cured adhesive: Dispose of as water insoluble non-toxic solid chemical in authorised landfill or incinerate under controlled conditions.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

#### Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09\* waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

## **SECTION 14: Transport information**

| 14.1. | UN number or ID number                                  |  |  |
|-------|---|--|--|
|       | ADR   | Not dangerous goods  |  |
|       | RID   | Not dangerous goods  |  |
|       | ADN   | Not dangerous goods  |  |
|       | IMDG  | Not dangerous goods  |  |
|       | IATA  | 3334   |  |
| 14.2. | UN proper shipping name                                 |  |  |
|       |   |  |  |
|       | ADR   | Not dangerous goods  |  |
|       | RID   | Not dangerous goods  |  |
|       | ADN   | Not dangerous goods  |  |
|       | IMDG  | Not dangerous goods  |  |
|       | IATA  | Aviation regulated liquid, n.o.s. (Ethyl cyanoacrylate)                            |  |
| 14.3. | Transport hazard class(es)                              |  |  |
|       | ADR   | Not dangerous goods  |  |
|       | RID   | Not dangerous goods  |  |
|       | ADN   | Not dangerous goods  |  |
|       | IMDG  | Not dangerous goods  |  |
|       | IATA  | 9  |  |
| 14.4. | Packing group   |  |  |
|       |   |  |  |
|       | ADR   | Not dangerous goods  |  |
|       | RID   | Not dangerous goods  |  |
|       | ADN   | Not dangerous goods  |  |
|       | IMDG  | Not dangerous goods  |  |
|       | IATA  | III  |  |
| 14.5. | Environmental hazards                                   |  |  |
|       |   |  |  |
|       | ADR   | not applicable   |  |
|       | RID   | not applicable   |  |
|       | ADN   | not applicable   |  |
|       | IMDG  | not applicable   |  |
|       | IATA  | not applicable   |  |
| 14.6. | Special precautions for user                            |  |  |
|       | ADR   | not applicable   |  |
|       | RID   | not applicable   |  |
|       | ADN   | not applicable   |  |
|       | IMDG  | not applicable   |  |
|       | IATA  | Primary packs containing less than 500ml are unregulated by this mode of transport |  |
|       |   | and may be shipped unrestricted.   |  |
| 14.7. | Maritime transport in bulk according to IMO instruments |  |  |
|       | not applicat  | ble  |  |
|       | 11  |  |  |

# **SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):Not applicablePrior Informed Consent (PIC) (Regulation (EU) No 649/2012):Not applicablePersistent organic pollutants (Regulation (EU) 2019/1021):Not applicable

```
VOC content
(2010/75/EC)
```

< 3 %

#### 15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

#### National regulations/information (Germany):

WGK:

WGK 2: significantly water endangering (Ordinance on facilities for handling substances that are hazardous to water (AwSV) ) Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510: 10

#### **SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

| ED:         | Substance identified as having endocrine disrupting properties                           |
|-------------|--|
| EU OEL:     | Substance with a Union workplace exposure limit  |
| EU EXPLD 1: | Substance listed in Annex I, Reg (EC) No. 2019/1148                                      |
| EU EXPLD 2  | Substance listed in Annex II, Reg (EC) No. 2019/1148                                     |
| SVHC:       | Substance of very high concern (REACH Candidate List)                                    |
| PBT:        | Substance fulfilling persistent, bioaccumulative and toxic criteria                      |
| PBT/vPvB:   | Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very |
|             | bioaccumulative criteria   |
| vPvB:       | Substance fulfilling very persistent and very bioaccumulative criteria                   |

#### **Further information:**

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