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



SDS No. : 374133
V001.2

LOCTITE CAT 11 BR known as CATALYST 11 BRN 4 OZ INDIV

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

**1.1. Product identifier**
LOCTITE CAT 11 BR known as CATALYST 11 BRN 4 OZ INDIV

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

**1.3. Details of the supplier of the safety data sheet**
Henkel AG & Co. KGaA
Henkelstr. 67
40589 Düsseldorf

Germany

Phone: +49 211 797 0

SDSinfo.Adhesive@henkel.com
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):**

| | |
|---|---|
| Acute toxicity | Category 3 |
| H301 Toxic if swallowed. | |
| Route of Exposure: Oral | |
| Acute toxicity | Category 3 |
| H331 Toxic if inhaled. | |
| Route of Exposure: Inhalation | |
| Acute toxicity | Category 3 |
| H311 Toxic in contact with skin. | |
| Route of Exposure: Dermal | |
| 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. | |
| Germ cell mutagenicity | Category 2 |
| H341 Suspected of causing genetic defects. | |
| Toxic to reproduction | Category 1B |
| H360D May damage the unborn child. | |
| Specific target organ toxicity - single exposure | Category 3 |
| H335 May cause respiratory irritation. | |
| Target organ: respiratory tract irritation | |
| Acute hazards to the aquatic environment | Category 1 |
| H400 Very toxic to aquatic life. | |
| Chronic hazards to the aquatic environment | Category 1 |
| H410 Very toxic to aquatic life with long lasting effects. | |

### 2.2. Label elements

**Label elements (CLP):**

**Hazard pictogram:**

**Contains** m-phenylenediamine

N-methyl-2-pyrrolidone

**Signal word:** Danger

**Hazard statement:**
H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.
H360D May damage the unborn child.
H341 Suspected of causing genetic defects.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.

**Supplemental information** Restricted to professional users.

**Precautionary statement: Prevention**
P201 Obtain special instructions before use.
P261 Avoid breathing vapors.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing.

**Precautionary statement: Response**
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards

None if used properly.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**Following substances are present in a concentration >= 0,1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):**

This mixture does not contain any substances in concentration ≥ the concentration limit 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-factors and ATEs | Add. Information |
|---|---|---|---|---|
| m-phenylenediamine<br>108-45-2<br>203-584-7 | 50- 100 % | Acute Tox. 3, Dermal, H311<br>Acute Tox. 3, Inhalation, H331<br>Muta. 2, H341<br>Aquatic Chronic 1, H410<br>Aquatic Acute 1, H400<br>Skin Sens. 1, H317<br>Eye Irrit. 2, H319<br>Acute Tox. 3, Oral, H301 | | |
| N-methyl-2-pyrrolidone<br>872-50-4<br>212-828-1<br>01-2119472430-46 | 25- 50 % | Repr. 1B, H360D<br>STOT SE 3, H335<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319 | STOT SE 3; H335; C >= 10 % | SVHC<br>EU OEL |

**For full text of the H - statements and other abbreviations see section 16 "Other information".**
**Substances without classification may have community workplace exposure limits available.**

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation:
Should not be a problem as product is of low volatility. However, if feeling unwell remove patient to fresh air.

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

**4.2. Most important symptoms and effects, both acute and delayed**
RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

SKIN: Rash, Urticaria.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

**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:**
water, carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:**
High pressure waterjet

**5.2. Special hazards arising from the substance or mixture**
In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) 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.
Wear protective equipment.
Ensure adequate ventilation.

**6.2. Environmental precautions**
Do not empty into drains / surface water / ground water.

**6.3. Methods and material for containment and cleaning up**
For small spills wipe up with paper towel and place in container for disposal.
For large spills absorb onto inert absorbent material and place in sealed container for disposal.
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.
See advice in section 8

Hygiene measures:

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

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

Ensure good ventilation/extraction.
Keep container tightly sealed.
Store at room temperature.
Refer to Technical Data Sheet

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

Hardener

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

**Occupational Exposure Limits**

Valid for
Germany

| Ingredient [Regulated substance] | ppm | mg/m$^3$ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| 1-Methyl-2-pyrrolidone<br>872-50-4<br>[N-METHYL-2-PYRROLIDONE] | 20 | 80 | Short Term Exposure Limit (STEL): | Indicative | ECTLV |
| 1-Methyl-2-pyrrolidone<br>872-50-4<br>[N-METHYL-2-PYRROLIDONE] | | | Skin designation: | Can be absorbed through the skin. | ECTLV |
| 1-Methyl-2-pyrrolidone<br>872-50-4<br>[N-METHYL-2-PYRROLIDONE] | 10 | 40 | Time Weighted Average (TWA): | Indicative | ECTLV |
| 1-Methyl-2-pyrrolidone<br>872-50-4 | | | Short Term Exposure Classification: | Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages. | TRGS 900 |
| 1-Methyl-2-pyrrolidone<br>872-50-4 | | | Skin designation: | Can be absorbed through the skin. | TRGS 900 |
| 1-Methyl-2-pyrrolidone<br>872-50-4 | 20 | 82 | Exposure limit(s): | 2<br>If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7). | TRGS 900 |
| 1-Methyl-2-pyrrolidone<br>872-50-4<br>[1-Methyl-2-pyrrolidone] | 20 | | Short Term Exposure Limit (STEL): | | EU OELIII |
| 1-Methyl-2-pyrrolidone<br>872-50-4<br>[1-Methyl-2-pyrrolidone] | | 80 | Short Term Exposure Limit (STEL): | | EU OELIII |
| 1-Methyl-2-pyrrolidone<br>872-50-4<br>[1-Methyl-2-pyrrolidone] | | | Skin designation: | Can be absorbed through the skin. | EU OELIII |
| 1-Methyl-2-pyrrolidone<br>872-50-4<br>[1-Methyl-2-pyrrolidone] | 10 | 40 | Time Weighted Average (TWA): | | EU OELIII |

**Predicted No-Effect Concentration (PNEC):**

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | mg/l | ppm | mg/kg | others | |
| N-methyl-2-pyrrolidone 872-50-4 | aqua (freshwater) | | 0,25 mg/l | | | | |
| N-methyl-2-pyrrolidone 872-50-4 | aqua (marine water) | | 0,025 mg/l | | | | |
| N-methyl-2-pyrrolidone 872-50-4 | aqua (intermittent releases) | | 5 mg/l | | | | |
| N-methyl-2-pyrrolidone 872-50-4 | sediment (freshwater) | | | | 1,09 mg/kg | | |
| N-methyl-2-pyrrolidone 872-50-4 | Soil | | | | 0,07 mg/kg | | |
| N-methyl-2-pyrrolidone 872-50-4 | sewage treatment plant (STP) | | 10 mg/l | | | | |
| N-methyl-2-pyrrolidone 872-50-4 | sediment (marine water) | | | | 0,109 mg/kg | | |

**Derived No-Effect Level (DNEL):**

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|---|---|---|---|---|---|
| N-methyl-2-pyrrolidone 872-50-4 | Workers | inhalation | Long term exposure - systemic effects | | 14,4 mg/m3 | |
| N-methyl-2-pyrrolidone 872-50-4 | Workers | inhalation | Long term exposure - local effects | | 40 mg/m3 | |
| N-methyl-2-pyrrolidone 872-50-4 | Workers | dermal | Long term exposure - systemic effects | | 4,8 mg/kg | |
| N-methyl-2-pyrrolidone 872-50-4 | General population | inhalation | Long term exposure - systemic effects | | 3,6 mg/m3 | |
| N-methyl-2-pyrrolidone 872-50-4 | General population | inhalation | Long term exposure - local effects | | 4,5 mg/m3 | |
| N-methyl-2-pyrrolidone 872-50-4 | General population | dermal | Long term exposure - systemic effects | | 2,4 mg/kg | |
| N-methyl-2-pyrrolidone 872-50-4 | General population | oral | Long term exposure - systemic effects | | 0,85 mg/kg | |

**Biological Exposure Indices:**

| Ingredient [Regulated substance] | Parameters | Biological specimen | Sampling time | Conc. | Basis of biol. exposure index | Remark | Additional Information |
|---|---|---|---|---|---|---|---|
| 1-Methyl-2-pyrrolidone 872-50-4 | 5-Hydroxy-N-methyl-2-pyrrolidone | Urine | Sampling time: End of shift. | 150 mg/l | DE BGW | | |

**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.

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

| | |
|---|---|
| Physical state | liquid |
| Delivery form | liquid |
| Colour | brown |
| Odor | Amine |
| Melting point | Not determined |
| Initial boiling point | > 200 °C (> 392 °F) |
| Flammability | Currently under determination |
| Explosive limits | Currently under determination |
| Flash point | 95 °C (203 °F) |
| Auto-ignition temperature | Currently under determination |
| Decomposition temperature | Currently under determination |
| pH<br>() | 9,2 (1% solution) |
| Viscosity (kinematic) | Currently under determination |
| Solubility (qualitative) | Soluble |
| Partition coefficient: n-octanol/water | Currently under determination |
| Vapour pressure<br>(25 °C (77 °F)) | < 0,345 mbar |
| Density<br>() | 1,1 g/cm3 no method |
| Relative vapour density: | 3,4<br>(Air = 1) |
| Particle characteristics | Not applicable<br>Product is a liquid |

### 9.2. Other information
Other information not applicable for this product

## SECTION 10: Stability and reactivity

**10.1. Reactivity**
Oxidizers.
Acids.

**10.2. Chemical stability**
Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**
See section reactivity

**10.4. Conditions to avoid**
No decomposition if stored and applied as directed.

**10.5. Incompatible materials**
See section reactivity.

**10.6. Hazardous decomposition products**
Hydrocarbons
carbon oxides.
nitrogen oxides

## SECTION 11: Toxicological information

**1.1 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<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| N-methyl-2-pyrrolidone<br>872-50-4 | LD50 | 4.150 mg/kg | rat | OECD Guideline 401 (Acute Oral Toxicity) |

**Acute dermal toxicity:**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| N-methyl-2-pyrrolidone<br>872-50-4 | LD50 | > 5.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |

**Acute inhalative toxicity:**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Test atmosphere | Exposure time | Species | Method |
|---|---|---|---|---|---|---|
| N-methyl-2-pyrrolidone<br>872-50-4 | LC50 | > 5,1 mg/l | dust/mist | 4 h | rat | OECD Guideline 403 (Acute Inhalation Toxicity) |

**Skin corrosion/irritation:**

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

| Hazardous substances<br>CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| N-methyl-2-pyrrolidone<br>872-50-4 | irritating | 24 h | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |
| N-methyl-2-pyrrolidone<br>872-50-4 | moderately irritating | | human | not specified |

**Serious eye damage/irritation:**

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

| Hazardous substances CAS-No. | Result | Exposure time | Species | Method |
|---|---|---|---|---|
| N-methyl-2-pyrrolidone 872-50-4 | irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

**Respiratory or skin sensitization:**

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

| Hazardous substances CAS-No. | Result | Test type | Species | Method |
|---|---|---|---|---|
| N-methyl-2-pyrrolidone 872-50-4 | not sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |

**Germ cell mutagenicity:**

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

| Hazardous substances CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|---|---|---|---|---|---|
| N-methyl-2-pyrrolidone 872-50-4 | negative | DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro | without | | OECD Guideline 482 (Genetic Toxicology: DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro) |
| N-methyl-2-pyrrolidone 872-50-4 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| N-methyl-2-pyrrolidone 872-50-4 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| N-methyl-2-pyrrolidone 872-50-4 | negative | oral: gavage | | mouse | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |
| N-methyl-2-pyrrolidone 872-50-4 | negative | oral: gavage | | hamster, Chinese | OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test) |

**Carcinogenicity**

No data available.

**Reproductive toxicity:**

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

| Hazardous substances CAS-No. | Result / Value | Test type | Route of application | Species | Method |
|---|---|---|---|---|---|
| N-methyl-2-pyrrolidone 872-50-4 | NOAEL P 160 mg/kg<br><br>NOAEL F1 160 mg/kg<br><br>NOAEL F2 160 mg/kg | Two generation study | oral: feed | rat | OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |

**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 / Frequency of treatment | Species | Method |
|---|---|---|---|---|---|
| N-methyl-2-pyrrolidone<br>872-50-4 | NOAEL 0,5 mg/l | inhalation | 90 days<br>6 hrs/day, 5 days/wk | rat | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |

**Aspiration hazard:**

No data available.

**11.2 Information on other hazards**

not applicable

## SECTION 12: Ecological information

**General ecological information:**
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.

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| m-phenylenediamine<br>108-45-2 | LC50 | 512 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| N-methyl-2-pyrrolidone<br>872-50-4 | LC50 | 4.000 mg/l | 96 h | Leuciscus idus | DIN 38412-15 |

**Toxicity (Daphnia):**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| m-phenylenediamine<br>108-45-2 | EC50 | 5,9 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| N-methyl-2-pyrrolidone<br>872-50-4 | EC50 | 4.897 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |

**Chronic toxicity to aquatic invertebrates**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| m-phenylenediamine<br>108-45-2 | NOEC | 0,316 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |
| N-methyl-2-pyrrolidone<br>872-50-4 | NOEC | 12,5 mg/l | 21 d | Daphnia magna | OECD 211 (Daphnia magna, Reproduction Test) |

**Toxicity (Algae):**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| m-phenylenediamine<br>108-45-2 | EC50 | 2,4 mg/l | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| N-methyl-2-pyrrolidone<br>872-50-4 | EC50 | > 500 mg/l | 72 h | Scenedesmus subspicatus (new name: Desmodesmus subspicatus) | DIN 38412-09 |

**Toxicity to microorganisms**

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| m-phenylenediamine<br>108-45-2 | EC 50 | > 10.000 mg/l | 3 h | | ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge) |

**12.2. Persistence and degradability**

| Hazardous substances<br>CAS-No. | Result | Test type | Degradability | Exposure time | Method |
|---|---|---|---|---|---|
| m-phenylenediamine<br>108-45-2 | not inherently biodegradable | aerobic | 14 % | 28 d | EU Method C.9 (Biodegradation: Zahn-Wellens Test) |
| m-phenylenediamine<br>108-45-2 | not readily biodegradable. | aerobic | 2 % | 28 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |
| N-methyl-2-pyrrolidone<br>872-50-4 | inherently biodegradable | aerobic | > 90 % | 8 d | OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test) |
| N-methyl-2-pyrrolidone<br>872-50-4 | readily biodegradable | aerobic | 92 % | 14 d | OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I)) |

**12.3. Bioaccumulative potential**

| Hazardous substances<br>CAS-No. | Bioconcentration factor (BCF) | Exposure time | Temperature | Species | Method |
|---|---|---|---|---|---|
| m-phenylenediamine<br>108-45-2 | 1,3 - 4,6 | 42 d | | Cyprinus carpio | not specified |

**12.4. Mobility in soil**

Cured adhesives are immobile.

| Hazardous substances<br>CAS-No. | LogPow | Temperature | Method |
|---|---|---|---|
| m-phenylenediamine<br>108-45-2 | -0,33 | | not specified |
| N-methyl-2-pyrrolidone<br>872-50-4 | -0,46 | 25 °C | OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method) |

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

| Hazardous substances<br>CAS-No. | PBT / vPvB |
|---|---|
| N-methyl-2-pyrrolidone<br>872-50-4 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very 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.

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 | 2810 |
| RID | 2810 |
| ADN | 2810 |
| IMDG | 2810 |
| IATA | 2810 |

**14.2. UN proper shipping name**

| | |
|---|---|
| ADR | TOXIC LIQUID, ORGANIC, N.O.S. (Phenylene diamine) |
| RID | TOXIC LIQUID, ORGANIC, N.O.S. (Phenylene diamine) |
| ADN | TOXIC LIQUID, ORGANIC, N.O.S. (Phenylene diamine) |
| IMDG | TOXIC LIQUID, ORGANIC, N.O.S. (Phenylene diamine) |
| IATA | Toxic liquid, organic, n.o.s. (Phenylene diamine) |

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

| | |
|---|---|
| ADR | 6.1 |
| RID | 6.1 |
| ADN | 6.1 |
| IMDG | 6.1 |
| IATA | 6.1 |

**14.4. Packing group**

| | |
|---|---|
| ADR | III |
| RID | III |
| ADN | III |
| IMDG | III |
| IATA | III |

**14.5. Environmental hazards**

| | |
|---|---|
| ADR | Environmentally Hazardous |
| RID | Environmentally Hazardous |
| ADN | Environmentally Hazardous |
| IMDG | Marine pollutant |
| IATA | not applicable |

**14.6. Special precautions for user**

| | |
|---|---|
| ADR | not applicable |

| | |
|---|---|
| | Tunnelcode: (E) |
| RID | not applicable |
| ADN | not applicable |
| IMDG | not applicable |
| IATA | not applicable |

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

## 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 applicable |
| Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): | Not applicable |
| Persistent organic pollutants (Regulation (EU) 2019/1021): | Not applicable |
| VOC content (2010/75/EC) | 28,5 % |

Annex XVII of Regulation (EC) No 1907/2006:
Contains: N-methyl-2-pyrrolidone (CAS No. 872-50-4)
This substance is restricted under Entry 71. Refer to Annex XVII of the REACH Regulation for details of the restriction.

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

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

| | |
|---|---|
| WGK: | WGK 3: highly hazardous to water (Ordinance on facilities for handling substances that are hazardous to water (AwSV) )<br>Classification according to AwSV, Annex 1 (5.2) |
| Storage class according to TRGS 510: | 6.1D |
| General remarks (DE): | This product is in scope of the German regulation "ChemikalienVerbotsVerordnung" |

## 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:

H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H341 Suspected of causing genetic defects.
H360D May damage the unborn child.
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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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

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