# Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)

Date: 26.04.2019 Revision Date: 26.04.2019

## 1. Identification of the substance/ preparation and of the company/ undertaking

**1.1 Product identifiers:**
**Article no. (Manufacturer/supplier): 04.01A**
**Identification of the substance or preparation: Trennwachs Standard**

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**1.3 Details of the supplier of the Safety Data Sheet**

**Supplier (manufacturer/importer/downstream user/distributor):**

- **Name of the company:**

  Lange + Ritter GmbH
  Dieselstraße 25
  70839 Gerlingen
  Tel: 0049 (0) 71562006-0
  Fax: 0049 (0) 71562006-999

- **Dept. Responsible for information:**

  Abteilung Anwendungstechnik:
  info@lange-ritter.de

- **Emergency number:**
  GBK, Gefahrgut Büro GmbH Deutschland: 0049 (0) 613284463 (25-Hour-Number)

## SECTION 2: Hazards identification

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

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

| | | |
|---|---|---|
| Flam. Liq. 2 / H225 | Flammable liquids | Highly flammable liquid and vapour. |
| Skin Irrit. 2 / H315 | skin corrosion/irritation | Causes skin irritation. |
| Asp. Tox. 1 / H304 | Aspiration hazard | May be fatal if swallowed and enters airways. |
| STOT RE 1 / H372 | Specific target organ toxicity (repeated exposure) | Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). |
| STOT SE 3 / H336 | Specific target organ toxicity (single exposure) | May cause drowsiness or dizziness. |
| Aquatic Chronic 2 / H411 | Hazardous to the aquatic environment | Toxic to aquatic life with long lasting effects. |

2.2. **Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**

**Danger**

**Hazard statements**

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |
| H304 | May be fatal if swallowed and enters airways. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |

**Precautionary statements**

| | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P241 | Use explosion-proof electrical equipment. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor/.?. |
| P405 | Keep locked up. |

**contains:**

Kohlenwasserstoffe,C6-7,n-Alkane,Isoalkane,Cycloalkane, <5% n-Hexan
Hydrocarbons, C9-C12, n-alkanes, cyclics, aromatics (2-25%)

**Supplemental Hazard information (EU)**

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. **Other hazards**

## SECTION 3: Composition / information on ingredients

3.2. **Mixtures**

**Product description / chemical characterization**

**Description** Mixture from in the following stated materials with harmless admixtures

**Hazardous ingredients**

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

| EC No.<br>CAS No.<br>INDEX No. | REACH No.<br>Chemical name<br>classification // Remark | Wt % |
|---|---|---|
| 200-661-7<br>67-63-0<br>603-117-00-0 | 01-2119904050-59<br>propan-2-ol<br>Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336 | 2,5 < 5 |
| 921-024-6 | 01-2119475514-35<br>Kohlenwasserstoffe,C6-7,n-Alkane,Isoalkane,Cycloalkane, <5% n-Hexan<br>Flam. Liq. 2 H225 / Skin Irrit. 2 H315 / Asp. Tox. 1 H304 / STOT SE 3 H336 / Aquatic Chronic 2 H411 | 50 < 75 |
| 64742-82-1 | 01-2119458049-33<br>Hydrocarbons, C9-C12, n-alkanes, cyclics, aromatics (2-25%)<br>Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / STOT RE 1 H372 / STOT SE 3 H336 / Aquatic Chronic 2 H411 | 30 < 40 |
| 203-777-6<br>110-54-3<br>601-037-00-0 | 01-2119480412-44<br>n-Hexane<br>Skin Irrit. 2 H315 / Repr. 2 H361f / STOT SE 3 H336 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Aquatic Chronic 2 H411 / Flam. Liq. 2 H225 | 1 < 2,5 |
| 203-806-2<br>110-82-7<br>601-017-00-1 | 01-2119463273-41<br>cyclohexane<br>Flam. Liq. 2 H225 / Skin Irrit. 2 H315 / Asp. Tox. 1 H304 / Aquatic Acute 1 H400 / STOT SE 3 H336 / Aquatic Chronic 1 H410 | 2,5 < 5 |

**Additional information**

Full text of classification: see section 16

## SECTION 4: First aid measures

4.1. **Description of first aid measures**

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

**In case of inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

## SECTION 5: Firefighting measures

5.1. **Extinguishing media**

**Suitable extinguishing media:**
alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

**Extinguishing media which must not be used for safety reasons:**
strong water jet

5.2. **Special hazards arising from the substance or mixture**
Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. **Advice for firefighters**
Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

## SECTION 6: Accidental release measures

6.1. **Personal precautions, protective equipment and emergency procedures**
Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. **Environmental precautions**
Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. **Methods and material for containment and cleaning up**
Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

6.4. **Reference to other sections**
Observe protective provisions (see section 7 and 8).

## SECTION 7: Handling and storage

7.1. **Precautions for safe handling**

**Advices on safe handling**

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

**Precautions against fire and explosion:**
Vapours are heavier than air. Vapours form explosive mixtures with air.

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

**Requirements for storage rooms and vessels**
Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRBS 2153)".

**Hints on joint storage**
Keep away from strongly acidic and alkaline materials as well as oxidizers.

**Further information on storage conditions**
Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 5 °C and 25 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

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

Observe technical data sheet. Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

**Occupational exposure limit values:**

n-Hexane
INDEX No. 601-037-00-0 / EC No. 203-777-6 / CAS No. 110-54-3
TWA: 72 mg/m3; 20 ppm

cyclohexane
INDEX No. 601-017-00-1 / EC No. 203-806-2 / CAS No. 110-82-7
TWA: 350 mg/m3; 100 ppm
STEL: 1050 mg/m3; 300 ppm

**Additional information**
TWA : long-term occupational exposure limit value
STEL : short-term occupational exposure limit value
Ceiling : peak limitation

**DNEL:**

Kohlenwasserstoffe,C6-7,n-Alkane,Isoalkane,Cycloalkane, <5% n-Hexan
EC No. 921-024-6
DNEL long-term dermal (systemic), Workers: 773 mg/kg
DNEL long-term inhalative (systemic), Workers: 2035 mg/m³
DNEL long-term oral (repeated), Consumer: 699 mg/kg
DNEL acute dermal, short-term (systemic), Consumer: 699 mg/kg
DNEL long-term inhalative (systemic), Consumer: 608 mg/m³

8.2. **Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

**Occupational exposure controls**

**Respiratory protection**
If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number. Filter type: A

**Hand protection**
For prolonged or repeated handling the following glove material must be used: Butyl caoutchouc (butyl rubber), Nitrilkautschuk
Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.
Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374
Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

**Eye protection**
Wear closely fitting protective glasses in case of splashes.

**Protective clothing**
Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

**Protective measures**
After contact clean skin thoroughly with water and soap or use appropriate cleanser.

**Environmental exposure controls**
Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

## SECTION 9: Physical and chemical properties

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

**Appearance:**

| | |
|---|---|
| **Physical state:** | **Liquid** |
| **Colour:** | **not determined** |
| **Odour:** | **typical** |
| **Odour threshold:** | **not applicable** |

| | |
|---|---|
| **pH at 20 °C::** | **not applicable** |
| **Melting point/freezing point:** | -95 °C<br>Source: n-Hexane |
| **Initial boiling point and boiling range:** | **82** °C<br>Method: -- |
| **Flash point:** | **< 1** °C |
| **Evaporation rate:** | **15,8 mg/s**<br>Source: n-Hexane |
| **Flammability (solid, gas):** | |
| **Burning time (s):** | **not applicable** |
| **Upper/lower flammability or explosive limits:** | |
| **Lower explosion limit:** | **0,6 Vol-%**<br>Method: --<br>Source: Hydrocarbons, C9-C12, n-alkanes, cyclics, aromatics (2-25%) |
| **Upper explosion limit:** | **12 Vol-%**<br>Method: --<br>Source: propan-2-ol |
| **Vapour pressure at 20 °C::** | **not determined** |
| **Vapour density:** | **not applicable** |
| **Relative density:** | |
| **Density at 20 °C::** | **0,58 g/cm³**<br>Method: -- |
| **Solubility(ies):** | |
| **Water solubility (g/L) at 20 °C::** | **insoluble** |
| **Partition coefficient: n-octanol/water:** | **see section 12** |
| **Auto-ignition temperature:** | **> 200** °C<br>Method: --<br>Source: Kohlenwasserstoffe,C6-7,n-Alkane,Isoalkane,Cycloalkane, <5% n-Hexan |
| **Decomposition temperature:** | **not applicable** |
| **Viscosity at °C::** | **n.a.** |
| **Explosive properties:** | **not applicable** |
| **Oxidising properties:** | **not applicable** |

9.2. **Other information**

| | |
|---|---|
| **Solid content (%):** | **3,00 Wt %** |
| **solvent content:** | |
| **Organic solvents:** | **97 Wt %** |
| **Water:** | **0 Wt %** |

## SECTION 10: Stability and reactivity

10.1. **Reactivity**

10.2. **Chemical stability**
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3. **Possibility of hazardous reactions**
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. **Conditions to avoid**
Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. **Incompatible materials**

10.6. **Hazardous decomposition products**
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

## SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
No data on preparation itself available.

11.1. **Information on toxicological effects**

**Acute toxicity**

Toxicological data are not available.

**skin corrosion/irritation; Serious eye damage/eye irritation**

Causes skin irritation.

**Respiratory or skin sensitisation**

Toxicological data are not available.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Toxicological data are not available.

**Specific target organ toxicity**

Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
:

May cause drowsiness or dizziness.
:

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Practical experience/human evidence**

Other observations:
Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

**Overall Assessment on CMR properties**

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

## SECTION 12: Ecological information

**overall evaluation**
Classification according to Regulation (EC) No 1272/2008 [CLP]
There is no information available on the preparation itself .
Do not allow to enter into surface water or drains.

12.1. **Toxicity**
Toxicological data are not available.

**Long-term Ecotoxicity**

Toxic to aquatic life with long lasting effects.
:

12.2. **Persistence and degradability**
Toxicological data are not available.

12.3. **Bioaccumulative potential**
Toxicological data are not available.

12.4. **Mobility in soil**
Toxicological data are not available.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. **Other adverse effects**

## SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

**Appropriate disposal / Product**
**Recommendation**
Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**List of proposed waste codes/waste designations in accordance with EWC**
070704* other organic solvents, washing liquids and mother liquors

**packaging**
**Recommendation**
Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

## SECTION 14: Transport information

14.1. **UN number**

UN 1993

14.2. **UN proper shipping name**

| | |
|---|---|
| Land transport (ADR/RID): | Flammable liquid, n.o.s.<br>(Hydrocarbons C6-C7, n-alkanes <5% n-hexane ,Cyclohexane) |
| Sea transport (IMDG): | FLAMMABLE LIQUID, N.O.S.<br>(Hydrocarbons C6-C7, n-alkanes <5% n-hexane ,Cyclohexane) |
| Air transport (ICAO-TI / IATA-DGR): | Flammable liquid, n.o.s.<br>(Hydrocarbons C6-C7, n-alkanes <5% n-hexane ,Cyclohexane) |

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

3

14.4. **Packing group**

II

14.5. **Environmental hazards**

| | |
|---|---|
| Land transport (ADR/RID) | UMWELTGEFAHRDEND |
| Marine pollutant | p / Hydrocarbons C6-C7, n-alkanes <5% n-hexane ,Cyclohexane |

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

**Further information**

**Land transport (ADR/RID)**

| | |
|---|---|
| tunnel restriction code | D/E |

**Sea transport (IMDG)**

| | |
|---|---|
| EmS-No. | F-E, S-E |

**Air transport (ICAO-TI / IATA-DGR)**

14.7. **Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

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## SECTION 15: Regulatory information

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

**EU legislation**

**Directive 2010/75/EU on industrial emissions**
VOC-value (in g/L) ISO 11890-2: 0
VOC-value (in g/L) ASTM D-3960-1 : 0

**National regulations**

**Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

15.2. **Chemical Safety Assessment**
Chemical safety assessments for substances in this preparation were not carried out.

## SECTION 16: Other information

**Full text of classification in section 3:**

| | | |
|---|---|---|
| Flam. Liq. 2 / H225 | Flammable liquids | Highly flammable liquid and vapour. |
| Eye Irrit. 2 / H319 | Serious eye damage/eye irritation | Causes serious eye irritation. |
| STOT SE 3 / H336 | Specific target organ toxicity (single exposure) | May cause drowsiness or dizziness. |
| Skin Irrit. 2 / H315 | skin corrosion/irritation | Causes skin irritation. |
| Asp. Tox. 1 / H304 | Aspiration hazard | May be fatal if swallowed and enters airways. |
| Aquatic Chronic 2 / H411 | Hazardous to the aquatic environment | Toxic to aquatic life with long lasting effects. |
| Flam. Liq. 3 / H226 | Flammable liquids | Flammable liquid and vapour. |
| STOT RE 1 / H372 | Specific target organ toxicity (repeated exposure) | Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). |
| Repr. 2 / H361f | Reproductive toxicity | Suspected of damaging fertility. |
| STOT RE 2 / H373 | Specific target organ toxicity (repeated exposure) | May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). |
| Aquatic Acute 1 / H400 | Hazardous to the aquatic environment | Very toxic to aquatic organisms. |
| Aquatic Chronic 1 / H410 | Hazardous to the aquatic environment | Very toxic to aquatic life with long lasting effects. |

**Abbreviations and acronyms**
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

**Further information**
Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.