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



TEROSON VR 10

SDS No. : 76578
V008.2
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1. Product identifier**
TEROSON VR 10

**1.2. Relevant identified uses of the substance or mixture and uses advised against**
Intended use:
Product for industrial surface treatment

**1.3. Details of the supplier of the safety data sheet**
Henkel Ltd
Adhesives
Wood Lane End
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

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**
24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

## SECTION 2: Hazards identification

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

**Classification (CLP):**

| | |
|---|---|
| Flammable liquids | Category 2 |
| H225 Highly flammable liquid and vapour. | |
| Skin irritation | Category 2 |
| H315 Causes skin irritation. | |
| Specific target organ toxicity - single exposure | Category 3 |
| H336 May cause drowsiness or dizziness. | |
| Target organ: Central nervous system | |
| Aspiration hazard | Category 1 |
| H304 May be fatal if swallowed and enters airways. | |
| Chronic hazards to the aquatic environment | Category 2 |
| H411 Toxic to aquatic life with long lasting effects. | |

**2.2. Label elements**

**Label elements (CLP):**

**Hazard pictogram:**

**Contains** Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

cyclohexane

**Signal word:** Danger

**Hazard statement:**
H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

**Precautionary statement: Prevention**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapors.
P273 Avoid release to the environment.
P280 Wear protective gloves.

**Precautionary statement: Response**
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/…
P331 Do NOT induce vomiting.
P370+P378 In case of fire: Use CO2, dry chemical, or foam for extinction.

**Precautionary statement: Storage**
P403+P235 Store in a well-ventilated place. Keep cool.

### 2.3. Other hazards

Solvents contained in the product evaporate during processing and their vapors can form explosive/highly inflammable air/vapor mixtures.
The solvent vapors are heavier than air and may collect in high concentrations at floor level.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

Following substances are present in a concentration ≥ 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 ≥ 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-factors and ATEs | Add. Information |
|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0<br>921-024-6<br>01-2119475514-35 | 80- 100 % | Flam. Liq. 2, H225<br>Asp. Tox. 1, H304<br>Skin Irrit. 2, H315<br>STOT SE 3, H336<br>Aquatic Chronic 2, H411 | | |
| cyclohexane<br>110-82-7<br>203-806-2<br>01-2119463273-41 | 10- < 20 % | Asp. Tox. 1, H304<br>STOT SE 3, H336<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>Flam. Liq. 2, H225<br>Skin Irrit. 2, H315 | M acute = 1<br>M chronic = 1 | EU OEL |
| n-Hexane<br>110-54-3<br>203-777-6<br>01-2119480412-44 | 1- < 3 % | Flam. Liq. 2, H225<br>Repr. 2, H361f<br>Asp. Tox. 1, H304<br>STOT RE 2, H373<br>Skin Irrit. 2, H315<br>STOT SE 3, H336<br>Aquatic Chronic 2, H411 | STOT RE 2; H373; C >= 5 % | EU OEL |

**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".**
**Declaration of ingredients according to Detergent Regulation 648/2004/EC**

> 30 % aliphatic hydrocarbons

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

Inhalation:
Move to fresh air, consult doctor if complaint persists.

Skin contact:
IF ON SKIN: Wash with plenty of soap and water.
In case of adverse health effects seek medical advice.

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.
After ingestion or vomit: danger of product entering the lung.

**4.2. Most important symptoms and effects, both acute and delayed**
SKIN: Redness, inflammation.

ASPIRATION: Coughing, shortness of breath, nausea. Delayed effect: bronchopneumonia or pulmonary oedema

Vapors may cause drowsiness and dizziness.

**4.3. Indication of any immediate medical attention and special treatment needed**
See section: Description of first aid measures
Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.
Do not induce vomiting.
Seek medical attention from a specialist.

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**
**Suitable extinguishing media:**
Carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:**
Water jet (solvent-containing product).

**5.2. Special hazards arising from the substance or mixture**
In case of fire toxic gases can be released.

**5.3. Advice for firefighters**
Wear self-contained breathing apparatus.
Wear protective equipment.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Wear protective equipment.
Avoid contact with skin and eyes.
Keep unprotected persons away.
Danger of slipping on spilled product.

**6.2. Environmental precautions**
Do not empty into drains / surface water / ground water.
Inform authorities in the event of product spillage to water courses or sewage systems.

**6.3. Methods and material for containment and cleaning up**
Remove with liquid-absorbing material (sand, peat, sawdust).
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 open flames and sources of ignition.
Ground/bond container and receiving equipment.
Use explosion proof electric equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.

Hygiene measures:
Do not eat, drink or smoke while working.
Wash hands before work breaks and after finishing work.
Take off contaminated clothing and wash before reuse.

**7.2. Conditions for safe storage, including any incompatibilities**
Ensure good ventilation/extraction.
Keep away from heat and direct sunlight.
Do not store near sources of heat or ignition, or reactive materials.
< + 25 °C
Storage at 5 to 25°C is recommended.

**7.3. Specific end use(s)**
Product for industrial surface treatment

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Occupational Exposure Limits**

Valid for
Great Britain

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 100 | 350 | Time Weighted Average (TWA): | | EH40 WEL |
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 200 | 700 | Time Weighted Average (TWA): | Indicative | ECTLV |
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 300 | 1.050 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |
| n-Hexane<br>110-54-3<br>[N-HEXANE] | 20 | 72 | Time Weighted Average (TWA): | | EH40 WEL |
| n-Hexane<br>110-54-3<br>[N-HEXANE] | 20 | 72 | Time Weighted Average (TWA): | Indicative | ECTLV |

**Occupational Exposure Limits**

Valid for
Ireland

| Ingredient [Regulated substance] | ppm | mg/m³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|---|---|---|---|---|
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 200 | 700 | Time Weighted Average (TWA): | Indicative OELV | IR_OEL |
| Cyclohexane<br>110-82-7<br>[CYCLOHEXANE] | 200 | 700 | Time Weighted Average (TWA): | Indicative | ECTLV |
| n-Hexane<br>110-54-3<br>[N-HEXANE] | 20 | 72 | Time Weighted Average (TWA): | Indicative OELV | IR_OEL |
| n-Hexane<br>110-54-3<br>[N-HEXANE] | | | Skin designation: | Can be absorbed through the skin. | IR_OEL |
| n-Hexane<br>110-54-3<br>[N-HEXANE] | 20 | 72 | Time Weighted Average (TWA): | Indicative | ECTLV |

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

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | mg/l | ppm | mg/kg | others | |
| cyclohexane 110-82-7 | aqua (freshwater) | | 0,207 mg/l | | | | |
| cyclohexane 110-82-7 | aqua (marine water) | | 0,207 mg/l | | | | |
| cyclohexane 110-82-7 | aqua (intermittent releases) | | 0,207 mg/l | | | | |
| cyclohexane 110-82-7 | sediment (freshwater) | | | | 16,68 mg/kg | | |
| cyclohexane 110-82-7 | sediment (marine water) | | | | 16,68 mg/kg | | |
| cyclohexane 110-82-7 | Soil | | | | 3,38 mg/kg | | |
| cyclohexane 110-82-7 | sewage treatment plant (STP) | | 3,24 mg/l | | | | |
| cyclohexane 110-82-7 | Air | | | | | | |
| cyclohexane 110-82-7 | Predator | | | | | | no potential for bioaccumulation |

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

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|---|---|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | Workers | inhalation | Long term exposure - systemic effects | | 2035 mg/m3 | |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | Workers | dermal | Long term exposure - systemic effects | | 773 mg/kg | |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | General population | inhalation | Long term exposure - systemic effects | | 608 mg/m3 | |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | General population | dermal | Long term exposure - systemic effects | | 699 mg/kg | |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | General population | oral | Long term exposure - systemic effects | | 699 mg/kg | |
| cyclohexane<br>110-82-7 | Workers | inhalation | Acute/short term exposure - local effects | | 700 mg/m3 | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | Workers | inhalation | Acute/short term exposure - systemic effects | | 700 mg/m3 | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | Workers | inhalation | Long term exposure - systemic effects | | 700 mg/m3 | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | Workers | inhalation | Long term exposure - local effects | | 700 mg/m3 | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | Workers | dermal | Long term exposure - systemic effects | | 2016 mg/kg | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | General population | inhalation | Acute/short term exposure - systemic effects | | 412 mg/m3 | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | General population | inhalation | Acute/short term exposure - local effects | | 412 mg/m3 | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | General population | dermal | Long term exposure - systemic effects | | 1186 mg/kg | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | General population | oral | Long term exposure - systemic effects | | 59,4 mg/kg | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | General population | inhalation | Long term exposure - systemic effects | | 206 mg/m3 | no potential for bioaccumulation |
| cyclohexane<br>110-82-7 | General population | inhalation | Long term exposure - local effects | | 206 mg/m3 | no potential for bioaccumulation |
| n-Hexane<br>110-54-3 | General population | inhalation | Long term exposure - systemic effects | | 16 mg/m3 | |
| n-Hexane<br>110-54-3 | Workers | dermal | Long term exposure - systemic effects | | 11 mg/kg | |
| n-Hexane<br>110-54-3 | General population | dermal | Long term exposure - systemic effects | | 5,3 mg/kg | |
| n-Hexane<br>110-54-3 | Workers | inhalation | Long term exposure - systemic effects | | 75 mg/m3 | |
| n-Hexane<br>110-54-3 | General population | oral | Long term exposure - systemic effects | | 4 mg/kg | |

**Biological Exposure Indices:**
None

**8.2. Exposure controls:**

Engineering controls:
Use only in well ventilated areas.

Respiratory protection:
In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).
This recommendation should be matched to local conditions.

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:
Goggles which can be tightly sealed.
Protective eye equipment should conform to EN166.

Skin protection:
Wear protective equipment.
Protective clothing that covers arms and legs.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:
Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway), or equivalent.
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 |
| Odor | Of hydrocarbons |
| Physical state | liquid |
| Melting point | Not applicable, Product is a liquid |
| Solidification temperature | > -30 °C (> -22 °F) |
| Initial boiling point | 89 - 107 °C (192.2 - 224.6 °F) |
| Flammability | Flammable liquid |
| Explosive limits | |
| lower | 1 %(V); |
| upper | 8 %(V); |
| Flash point | -15,5 °C (4.1 °F); DIN 51755 Closed cup flash point |
| Auto-ignition temperature | 268 °C (514.4 °F) |
| Decomposition temperature | > 200 °C (> 392 °F); |
| pH | Not applicable, Product is non-soluble (in water). |
| Viscosity (kinematic) (20 °C (68 °F); ) | 0,61 mm2/s ;.no method / method unknown |
| Viscosity, dynamic () | Not available. |

| | |
|---|---|
| Flow cup viscosity<br>(23 °C (73.4 °F); Nozzle: 4 mm DIN EN ISO 2431; QP2017.1, QP1580.0; Running out time with flow cups) | 9 s DIN EN ISO 2431 Running out time with flow cups |
| Solubility (qualitative)<br>(20 °C (68 °F); Solvent: Water) | Not miscible |
| Partition coefficient: n-octanol/water | Not applicable<br>Mixture |
| Vapour pressure<br>(20 °C (68 °F)) | 8,5 kPa |
| Vapour pressure<br>(50 °C (122 °F)) | 29 kPa |
| Density<br>(20 °C (68 °F)) | 0,705 g/cm3 Density hydrometer |
| Relative vapour density:<br>(15 °C) | 0,72 |
| 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.

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

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

**10.4. Conditions to avoid**
Heat, flames, sparks and other sources of ignition.

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

**10.6. Hazardous decomposition products**
No decomposition if used according to specifications.

## SECTION 11: Toxicological information

**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<br>CAS-No. | Value type | Value | Species | Method |
|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | LD50 | > 5.840 mg/kg | rat | not specified |
| cyclohexane<br>110-82-7 | LD50 | > 5.000 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity) |
| n-Hexane<br>110-54-3 | LD50 | 16.000 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 |
|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | LD50 | > 2.800 mg/kg | rat | not specified |
| cyclohexane<br>110-82-7 | LD50 | > 2.000 mg/kg | rabbit | equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity) |
| n-Hexane<br>110-54-3 | LD50 | > 2.000 mg/kg | rabbit | not specified |

**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 |
|---|---|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | LC50 | > 25,2 mg/l | vapour | 4 h | rat | not specified |
| cyclohexane<br>110-82-7 | LC50 | > 32,880 mg/l | vapour | 4 h | rat | equivalent or similar to OECD Guideline 403 (Acute Inhalation Toxicity) |
| n-Hexane<br>110-54-3 | LC50 | > 31,86 mg/l | vapour | 4 h | rat | not specified |

**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-Hexane<br>110-54-3 | not irritating | | rabbit | OECD Guideline 404 (Acute Dermal Irritation / Corrosion) |

**Serious eye damage/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 |
|---|---|---|---|---|
| cyclohexane<br>110-82-7 | slightly irritating | | rabbit | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| n-Hexane<br>110-54-3 | not irritating | | rabbit | not specified |

**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 |
|---|---|---|---|---|
| cyclohexane<br>110-82-7 | not sensitising | Buehler test | guinea pig | equivalent or similar to OECD Guideline 406 (Skin Sensitisation) |
| n-Hexane<br>110-54-3 | 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 |
|---|---|---|---|---|---|
| cyclohexane 110-82-7 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | equivalent or similar to OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| cyclohexane 110-82-7 | negative | mammalian cell gene mutation assay | with and without | | equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| n-Hexane 110-54-3 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| n-Hexane 110-54-3 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| cyclohexane 110-82-7 | negative | inhalation: vapour | | rat | equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test) |
| n-Hexane 110-54-3 | negative | inhalation: vapour | | mouse | not specified |
| n-Hexane 110-54-3 | negative | inhalation: vapour | | rat | not specified |

**Carcinogenicity**

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

| Hazardous components CAS-No. | Result | Route of application | Exposure time / Frequency of treatment | Species | Sex | Method |
|---|---|---|---|---|---|---|
| n-Hexane 110-54-3 | not carcinogenic | inhalation: vapour | 2 y 6 h/d; 5 d/w | mouse | female | OECD Guideline 451 (Carcinogenicity Studies) |

**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 |
|---|---|---|---|---|---|
| cyclohexane 110-82-7 | NOAEL F1 7000 ppm | two-generation study | inhalation: vapour | rat | equivalent or similar to OECD Guideline 416 (Two-Generation Reproduction Toxicity Study) |
| n-Hexane 110-54-3 | NOAEL P 9000 ppm<br>NOAEL F1 3000 ppm<br>NOAEL F2 3000 ppm | Two generation study | inhalation: vapour | 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 |
|---|---|---|---|---|---|
| cyclohexane<br>110-82-7 | | inhalation: vapour | 13-14 w<br>6 h/d, 5 d/w | mouse | EPA OPPTS 870.3465 (90-Day Inhalation Toxicity) |
| n-Hexane<br>110-54-3 | NOAEL 568 mg/kg | oral: gavage | 90 d<br>5 d/w | rat | not specified |
| n-Hexane<br>110-54-3 | NOAEL 500 ppm | inhalation: vapour | 90 d<br>6 h/d; 5 d/w | mouse | OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day) |

**Aspiration hazard:**

The mixture is classified based on Viscosity data.

| Hazardous substances<br>CAS-No. | Viscosity (kinematic)<br>Value | Temperature | Method | Remarks |
|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | 0,61 mm2/s | 25 °C | not specified | |
| cyclohexane<br>110-82-7 | 0,41 mm2/s | 40 °C | not specified | |
| n-Hexane<br>110-54-3 | 0,45 mm2/s | 25 °C | not specified | |

**11.2 Information on other hazards**

not applicable

## SECTION 12: Ecological information

**General ecological information:**
Do not empty into drains, soil or bodies of water.
The product does not contain surface-active substances as defined in the EU Detergent Regulation (EC/648/2004).

**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 type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | LL50 | 11,4 mg/l | 96 h | Oncorhynchus mykiss | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| cyclohexane<br>110-82-7 | LC50 | 4,53 mg/l | 96 h | Pimephales promelas | OECD Guideline 203 (Fish, Acute Toxicity Test) |
| n-Hexane<br>110-54-3 | LC50 | > 1 - 10 mg/l | 96 h | not specified | OECD Guideline 203 (Fish, 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 type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | EL50 | 3 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| cyclohexane<br>110-82-7 | EC50 | 0,9 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) |
| n-Hexane<br>110-54-3 | EC50 | 2,1 mg/l | 48 h | Daphnia magna | OECD Guideline 202 (Daphnia sp. Acute 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 type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | NOEC | 0,17 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.

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

| Hazardous substances<br>CAS-No. | Value type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | EL50 | > 30 - 100 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | NOELR | 3 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| cyclohexane<br>110-82-7 | EC50 | 9,317 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| cyclohexane<br>110-82-7 | NOEC | 0,95 mg/l | 72 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| n-Hexane<br>110-54-3 | EC50 | > 1 - 10 mg/l | 72 h | not specified | OECD Guideline 201 (Alga, Growth Inhibition Test) |

**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 type | Value | Exposure time | Species | Method |
|---|---|---|---|---|---|
| cyclohexane<br>110-82-7 | IC50 | 29 mg/l | 15 h | other: | not specified |
| n-Hexane<br>110-54-3 | EC50 | > 1 - 10 mg/l | 3 h | not specified | OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test) |

**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 time | Method |
|---|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | readily biodegradable | aerobic | 98 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| cyclohexane<br>110-82-7 | readily biodegradable | aerobic | 77 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |
| n-Hexane<br>110-54-3 | readily biodegradable | aerobic | 81 % | 28 d | OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test) |

**12.3. Bioaccumulative potential**

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

| Hazardous substances<br>CAS-No. | Bioconcentration factor (BCF) | Exposure time | Temperature | Species | Method |
|---|---|---|---|---|---|
| cyclohexane<br>110-82-7 | 167 | | | Pimephales promelas | QSAR (Quantitative Structure Activity Relationship) |

**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 |
|---|---|---|---|
| cyclohexane<br>110-82-7 | 3,44 | 25 °C | QSAR (Quantitative Structure Activity Relationship) |
| n-Hexane<br>110-54-3 | 4 | 20 °C | other guideline: |

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

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

| Hazardous substances<br>CAS-No. | PBT / vPvB |
|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane<br>92128-66-0 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| cyclohexane<br>110-82-7 | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria. |
| n-Hexane<br>110-54-3 | 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:
In consultation with the responsible local authority, must be subjected to special treatment.

## SECTION 14: Transport information

**14.1. UN number or ID number**

| | |
|---|---|
| ADR | 1268 |
| RID | 1268 |
| ADN | 1268 |
| IMDG | 1268 |
| IATA | 1268 |

**14.2. UN proper shipping name**

| | |
|---|---|
| ADR | PETROLEUM DISTILLATES, N.O.S. |
| RID | PETROLEUM DISTILLATES, N.O.S. |
| ADN | PETROLEUM DISTILLATES, N.O.S. |
| IMDG | PETROLEUM DISTILLATES, N.O.S. (Petroleum naphtha) |
| IATA | Petroleum distillates, n.o.s. |

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

| | |
|---|---|
| ADR | 3 |
| RID | 3 |
| ADN | 3 |
| IMDG | 3 |
| IATA | 3 |

**14.4. Packing group**

| | |
|---|---|
| ADR | II |
| RID | II |
| ADN | II |
| IMDG | II |
| IATA | II |

**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 | Special provision 640D<br>Tunnelcode: (D/E) |
| RID | Special provision 640D |
| ADN | Special provision 640D |
| 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/EU) | 100 % |

**VOC Paints and Varnishes (EU):**

| | |
|---|---|
| Regulatory Basis: | Directive 2004/42/EC |
| Product (sub)category: | B(a) Preparatory and cleaning products |
| Phase I (from 1.1.2007): | 850 g/l |
| max. VOC content: | 705,00 gal/UK |

**15.2. Chemical safety assessment**

A chemical safety assessment has been carried out.

## 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:

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H361f Suspected of damaging fertility.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 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 |

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