

DIRKO™ Transparent

Safety Data Sheet according to UK REACH Date of issue: 01.10.2018

Revision date: 12.06.2023

Version/Replaced version: 3.0/2.1

| SECTIO | ON 1: Identification of the subs | stance/mixture and of the company/undertaking |
|--|--|---|
| 1.1. | Product identifier | |
| Product for | orm | : Mixture |
| Product n | ame | : DIRKO [™] Transparent |
| Product c | ode | : 216.910 (310 ml) |
| 1.2. | Relevant identified uses of the subst | ance or mixture and uses advised against |
| 1.2.1. | Relevant identified uses | |
| Intended | for general public | |
| Use of the | e substance/mixture | : Sealants |
| 1.2.2. | Uses advised against | |
| No additio | onal information available | |
| 1.3. | Details of the supplier of the safety d | ata sheet |
| ElringKlin Max-Eyth 72581 De T +49 (0) | 0 | Supplier |
| Elring Par Unit 2, De Earlsway Gateshea Tyne and NE11 TF Sales T + | erwent Court Team Valley Trading Estate Id Wear | |

Safety Data Sheet: DLAC Dienstleistungsagentur Chemie GmbH, E-mail: sds@dlac-gmbh.de

| Country | Organisation/Company | Address | Emergency number |
|---------|--|--|------------------|
| Germany | Giftinformationszentrum (GIZ-Nord) Universitätsmedizin Göttingen - Georg-August-Universität | Robert-Koch Straße 40 37075 Göttingen | +49 551 19240 |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GB CLP

Serious eye damage/eye irritation, Category 2 H319

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

Causes serious eye irritation. When the product hardens, small amounts of irritating vapors are released.

2.2. Label elements Labelling according to Regulation (EC) No 1272/2008 [CLP] Hazard pictograms (CLP) : Hazard pictograms (CLP) : Signal word (CLP) : Hazard statements (CLP) : Warning : Hazard statements (CLP) : Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P264 - Wash hands thoroughly after handling. P280 - Wear eye protection. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

DIRKO[™] Transparent

Safety Data Sheet according to UK REACH

contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention.

2.3. **Other hazards**

Contains PBT/vPvB substances assessed in accordance with UK REACH Annex XIII: Octamethylcyclotetrasiloxane (556-67-2), Decamethylcyclopentasiloxane (541-02-6), Dodecamethylcyclohexasiloxane (540-97-6).

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Substances formed under the conditions of use:

| Name | Product identifier | % | Classification according to GB CLP |
|-------------|--|-----|---|
| Acetic acid | (CAS No) 64-19-7 (EC No) 200-580-7 (Index No) 607-002-00-6 | < 3 | Flam. Liq. 3, H226 Skin Corr. 1A, H314 |

SECTION 3: Composition/information on ingredients

Substances 3.1.

Not applicable

Mixtures 3.2.

| Name | Product identifier | % | Classification according to GB CLP |
|--|---|--------------|--|
| Methylsilanetriyl triacetate | (CAS No) 4253-34-3 (EC No) 224-221-9 | 1 - < 3 | Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 |
| Octamethylcyclotetrasiloxane (substance listed as REACH Candidate) | (CAS No) 556-67-2 (EC No) 209-136-7 (Index No) 014-018-00-1 | 0.25 - < 2.5 | Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 1, H410 (M=10) |
| Decamethylcyclopentasiloxane (substance listed as REACH Candidate) | (CAS No) 541-02-6 (EC No) 208-764-9 | 0.1 - < 1 | Not classified |
| Dodecamethylcyclohexasiloxane (substance listed as REACH Candidate) | (CAS No) 540-97-6 (EC No) 208-762-8 | 0.1 - < 1 | Not classified |

Full text of H-phrases: see section 16

| SECTION 4: First aid measures 4.1. Description of first aid measures | |
|---|---|
| First-aid measures general | : Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position. |
| First-aid measures after inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| First-aid measures after skin contact | : Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. |
| First-aid measures after eye contact | : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if presen and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Rinse mouth. Drink water as a precaution. Do NOT induce vomiting. |
| 4.2. Most important symptoms and effe | cts, both acute and delayed |
| Symptoms/injuries after eye contact | : Causes serious eye irritation. |
| 4.3. Indication of any immediate medica | al attention and special treatment needed |
| Treat symptomatically. | |
| SECTION 5: Firefighting measures | |
| 5.1. Extinguishing media | |
| Suitable extinguishing media | : Use extinguishing agents that suit the environment. Carbon dioxide. Extinguishing powder. Water spray. For a significant fire: Alcohol resistant foam. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |
| T.O. Oversiel because a state of the | |
| 5.2. Special hazards arising from the su | ibstance or mixture |
| 5.2. Special hazards arising from the su Hazardous decomposition products in case of fire | bstance or mixture : Carbon dioxide. Carbon monoxide. Toxic gases and vapors. Silicon oxides. |
| Hazardous decomposition products in case of | |
| Hazardous decomposition products in case of fire | |
| Hazardous decomposition products in case of fire 5.3. Advice for firefighters | Carbon dioxide. Carbon monoxide. Toxic gases and vapors. Silicon oxides. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering |
| Hazardous decomposition products in case of fire 5.3. Advice for firefighters Firefighting instructions Protection during firefighting | Carbon dioxide. Carbon monoxide. Toxic gases and vapors. Silicon oxides. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment. Use a self-contained breathing apparatus and also a protective suit. |
| Hazardous decomposition products in case of fire 5.3. Advice for firefighters Firefighting instructions Protection during firefighting SECTION 6: Accidental release mea | Carbon dioxide. Carbon monoxide. Toxic gases and vapors. Silicon oxides. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment. Use a self-contained breathing apparatus and also a protective suit. |

| ccording to UK REACH | | | |
|--|----------------------------|--|--|
| 6.1.1. For non-emergen | cy personnel | | |
| Emergency procedures | | : Evacuate unnecessary personnel. | |
| 6.1.2. For emergency re | esponders | | |
| Protective equipment | | | s required. In case of inadequate ventilation wear rmation refer to section 8: "Exposure controls/personal |
| 6.2. Environmental pr | recautions | | |
| Prevent entry to sewers and | public waters. | | |
| 6.3. Methods and mat | erial for containmer | nt and cleaning up | |
| Methods for cleaning up | | | example cloth). Soak up spills with inert solids, such as as possible. Keep in suitable, closed containers for ith relevant local regulations. |
| 6.4. Reference to othe | er sections | | |
| Exposure controls and perso | onal protection, see se | ection 8. Concerning disposal elimination | n after cleaning, see section 13. |
| SECTION 7: Handling | and storage | | |
| 7.1. Precautions for s | afe handling | | |
| Precautions for safe handling | 9 | : Ensure good ventilation of the work si skin and eyes. Wear personal protect | tation. Avoid breathing vapours, spray. Avoid contact with live equipment. |
| Hygiene measures | | other exposed areas with mild soap a leaving work. When using do not eat, | strial hygiene and safety procedures. Wash hands and and water before eating, drinking or smoking and when drink or smoke. Contaminated work clothing should not sh contaminated clothing before reuse. |
| 7.2. Conditions for sa | fe storage, includin | g any incompatibilities | |
| Storage conditions | | : Store in original container. Keep container. Reep container. Reep container. Reep container. Reep container. | ainer tightly closed. Store in a dry, cool and well-ventilated unlight. |
| Prohibitions on mixed storage | e | : Keep away from food, drink and anim | al feedingstuffs. |
| 7.3. Specific end use(| s) | | |
| Sealants. | | | |
| | - | und must setters | |
| SECTION 8: Exposure | | nai protection | |
| 8.1. Control paramete | ers | | |
| Acetic acid (64-19-7) | Lacelnemo | | Apotio poid |
| United Kingdom United Kingdom | Local name WEL TWA (mg/ | m ³) | Acetic acid 25 mg/m ³ |
| United Kingdom | WEL TWA (mg/ | | 10 ppm |
| United Kingdom | WEL STEL (mg | • | 50 mg/m ³ |
| United Kingdom | WEL STEL (ppr | , | 20 ppm |
| | | ., | |
| Methylsilanetriyl triacetat DNEL/DMEL (Workers) | ie (4253-34-3) | | |
| Acute - local effects, inhala | tion | 61 mg/m ³ | |
| Long-term - local effects, in | | 31 mg/m ³ | |
| DNEL/DMEL (General popu | | o i ing/in | |
| Acute - local effects, inhala | | 61 mg/m³ | |
| Long-term - local effects, in | | 31 mg/m ³ | |
| PNEC (Sediment) | | | |
| PNEC sediment (freshwate | er) | 4.8 mg/kg dwt | |
| PNEC sediment (marine wa | ater) | 0.48 mg/kg dwt | |
| PNEC (Soil) | | | |
| PNEC soil | | 0.19 mg/kg dwt | |
| PNEC (STP) | | | |
| PNEC sewage treatment pl | lant | 6.9 mg/l | |
| Octamethylcyclotetrasilo | xane (556-67-2) | | |
| DNEL/DMEL (Workers) | | | |
| Long-term - systemic effect | | 73 mg/m³ | |
| Long-term - local effects, in | | 73 mg/m³ | |
| DNEL/DMEL (General popu | , | | |
| Long-term - systemic effect | | 3.7 mg/kg bodyweight/day | |
| Long-term - systemic effect | ts, inhalation | 13 mg/m³ | |
| 12.06.2023 | | en(GB) | 3/9 |
| | | • • | |

| - | |
|--|---|
| Octamethylcyclotetrasiloxane (556-67-2) | |
| Long-term - local effects, inhalation | 13 mg/m ³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.0015 mg/l |
| PNEC aqua (marine water) | 0.00015 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 3 mg/kg dwt |
| PNEC sediment (marine water) | 0.3 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 0.84 mg/kg dwt |
| PNEC (Oral) | |
| PNEC oral (secondary poisoning) | 41 mg/kg food |
| PNEC (STP) | |
| PNEC sewage treatment plant | 10 mg/l |
| | |
| Decamethylcyclopentasiloxane (541-02-6) | |
| DNEL/DMEL (Workers) | |
| Long-term - systemic effects, inhalation | 97.3 mg/m ³ |
| Long-term - local effects, inhalation | 24.2 mg/m ³ |
| DNEL/DMEL (General population) | |
| Long-term - systemic effects, oral | 5 mg/kg bodyweight/day |
| Long-term - systemic effects, inhalation | 17.3 mg/m ³ |
| Long-term - local effects, inhalation | 4.3 mg/m ³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 0.0012 mg/l |
| PNEC aqua (marine water) | 0.00012 mg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 11 mg/kg dwt |
| PNEC sediment (marine water) | 1.1 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 2.54 mg/kg dwt |
| PNEC (Oral) | |
| PNEC oral (secondary poisoning) | 16 mg/kg food |
| PNEC (STP) | |
| PNEC sewage treatment plant | 10 mg/l |
| | |
| Dodecamethylcyclohexasiloxane (540-97-6) | |
| DNEL/DMEL (Workers) | |
| Acute - local effects, inhalation | 6.1 mg/m ³ |
| Long-term - local effects, inhalation | 1.22 mg/m ³ |
| DNEL/DMEL (General population) | |
| Acute - local effects, inhalation | 1.5 mg/m ³ |
| Long-term - local effects, inhalation | 0.3 mg/m ³ |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 13.5 mg/kg dwt |
| PNEC sediment (marine water) | 1.35 mg/kg dwt |
| PNEC (Oral) | |
| PNEC oral (secondary poisoning) | 66.7 mg/kg food |
| 8.2. Exposure controls | |
| Appropriate engineering controls | : Provide local exhaust or general room ventilation to minimize vapour concentrations. |
| Hand protection | : Wear suitable gloves (EN 374 or equivalent). Short-term contact: nitrile/neoprene, ≥ 0.2 mm. |
| | Prolonged or repeated contact: nitrile, \geq 1.25 mm. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. |
| Eye protection | : Chemical goggles or safety glasses (EN 166). |
| Skin and body protection | : Wear suitable protective clothing (EN 14605, EN 13982). |
| Respiratory protection | Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Respiratory protection with filter type ABEK (EN 14387). |
| Environmental exposure controls | : Avoid release to the environment. |
| | |

| SECTIO | ON 9: Physical and chemical properties | |
|------------|---|-----|
| | Information on basic physical and chemical properties | |
| Appearan | | |
| 12.06.2023 | en(GB) | 4/9 |

DIRKO[™] Transparent

Safety Data Sheet

| - | |
|--|---|
| Odour | : Characteristic, vinegar |
| Odour threshold | : No data available |
| рН | : No data available |
| Melting point/freezing point | : No data available |
| Initial boiling point and boiling range | : No data available |
| Flash point | : > 150 °C (Afnor T 60103) |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : No data available |
| Upper/lower flammability or explosive limits | : No data available |
| Vapour pressure | : No data available |
| Vapour density | : No data available |
| Relative density | : No data available |
| Density | : ~ 1.04 kg/dm³ (20 °C) |
| Solubility(ies) Partition coefficient: n-octanol/water | : Water: practically insoluble Acetone, Alcohol: insoluble Aliphatic/aromatic hydrocarbons: partially soluble Chlorinated solvents: partially soluble : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : > 200 °C |
| Viscosity | : No data available |
| Explosive properties | : None |
| Oxidising properties | : None |
| 9.2. Other information | |
| No additional information available | |
| SECTION 10: Stability and reactivity | ty |
| 10.1. Reactivity | |
| Vulcanizes at room temperature and on contact | ct with humidity. |
| 10.2. Chemical stability | |
| | |

Stable under use and storage conditions as recommended in section 7.

Possibility of hazardous reactions 10.3.

None under normal use.

Conditions to avoid 10.4.

High temperature.

10.5. Incompatible materials

Oxidizing agents. Water.

Hazardous decomposition products 10.6.

In case of fire: Carbon dioxide. Carbon monoxide. Toxic gases and vapours. Silicon oxides.

SECTION 11: Toxicological information

```
11.1.
         Information on toxicological effects
```

```
Acute toxicity
```

Not classified :

Based on available data, the classification criteria are not met

| Methylsilanetriyl triacetate (4253-34-3) | |
|--|--------------|
| LD50 oral rat | 1600 mg/kg |
| Octamethylcyclotetrasiloxane (556-67-2) | |
| LD50 oral rat | > 4800 mg/kg |
| LD50 dermal rat | > 2375 mg/kg |
| LC50 inhalation rat (Dust/Mist) | 36 mg/l/4 h |
| Dodecamethylcyclohexasiloxane (540-97-6) | |
| LD50 oral rat | > 2000 mg/kg |
| LD50 dermal rat | > 2000 mg/kg |

| Decamethylcyclopentasiloxane (541-02-6) | |
|---|--|
| | > 5000 mm//m |
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat | 8.67 mg/l/4 h |
| Skin corrosion/irritation | : The product is not considered to be irritating to the skin (Test results with a similar product). |
| Serious eye damage/irritation | : Causes serious eye irritation (Test results with a similar product). |
| Respiratory or skin sensitisation | : Not classified |
| | Based on available data, the classification criteria are not met |
| Germ cell mutagenicity | Not classified |
| 5 7 | Based on available data, the classification criteria are not met |
| Carcinogenicity | : Not classified |
| | Based on available data, the classification criteria are not met |
| Poproductivo toxicitu | : Not classified |
| Reproductive toxicity | |
| × | Based on available data, the classification criteria are not met |
| Specific target organ toxicity (single exposure) | : Not classified |
| | Based on available data, the classification criteria are not met |
| Specific target organ toxicity (repeated | : Not classified |
| exposure) | Based on available data, the classification criteria are not met |
| Aspiration hazard | : Not classified |
| | Based on available data, the classification criteria are not met |
| Potential adverse human health effects and | : Endocrine disruption for human health: The substance/mixture has no endocrine disrupting |
| ymptoms | properties. |
| | |
| SECTION 12: Ecological information | 1 |
| 2.1. Toxicity | |
| Acute aquatic toxicity | : Not classified |
| Chronic aquatic toxicity | : Not classified |
| | The maximum concentration of octamethylcyclotetrasiloxane (556-67-2) that can leach from the |
| | |
| | product is below the established safety level (< 0.0079 mg/l) for aquatic organisms (based on |
| | product is below the established safety level (< 0.0079 mg/l) for aquatic organisms (based on partition coefficient, test results with a similar product). |
| Methylsilanetriyl triacetate (4253-34-3) | |
| Methylsilanetriyl triacetate (4253-34-3) LC50 fish | partition coefficient, test results with a similar product). |
| | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio |
| LC50 fish EC50 crustacean | > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna |
| LC50 fish EC50 crustacean EC50 algae | > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae | > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 96 h, Oncorhynchus mykiss |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 500 mg/l 74 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 500 mg/l 74 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0044 mg/l 93 d, Oncorhynchus mykiss |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0044 mg/l 93 d, Oncorhynchus mykiss ≥ 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0044 mg/l 93 d, Oncorhynchus mykiss ≥ 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0044 mg/l 93 d, Oncorhynchus mykiss ≥ 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.015 mg/l 21 d, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish NOEC fish NOEC fish NOEC daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0044 mg/l 93 d, Oncorhynchus mykiss ≥ 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish NOEC fish NOEC fish NOEC daphnia NOEC daphnia NOEC daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0044 mg/l 93 d, Oncorhynchus mykiss ≥ 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish NOEC fish NOEC fish NOEC daphnia NOEC daphnia NOEC daphnia NOEC daphnia NOEC daphnia NOEC daphnia | > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0024 mg/l 96 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.002 mg/l 72 h, Raphidocelis subcapitata > 0,002 mg/l 72 h, Raphidocelis subcapitata > 0,004 mg/l 90 d, Oncorhynchus mykiss ≥ 0,004 mg/l 21 d, Daphnia magna > 0,002 mg/l 72 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish NOEC fish NOEC fish NOEC daphnia NOEC daphnia NOEC daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0044 mg/l 93 d, Oncorhynchus mykiss ≥ 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish NOEC fish NOEC fish NOEC daphnia NOEC daphnia NOEC daphnia NOEC daphnia NOEC daphnia NOEC daphnia | > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/L 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.0024 mg/l 96 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.002 mg/l 72 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish NOEC fish NOEC daphnia NOEC fish NOEC daphnia NOEC daphnia NOEC daphnia Source fish NOEC daphnia NOEC daphnia NOEC daphnia NOEC daphnia | > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.015 mg/l 21 d, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.002 mg/l 71 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.002 mg/l 72 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish NOEC fish NOEC daphnia NOEC daphnia NOEC daphnia NOEC algae Decamethylcyclopentasiloxane (541-02-6) LC50 fish EC50 daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna ≥ 0.015 mg/l 96 h, Raphidocelis subcapitata ≥ 0.015 mg/l 96 h, Raphidocelis subcapitata ≥ 0.015 mg/l 96 h, Raphidocelis subcapitata ≥ 0.015 mg/l 21 d, Daphnia magna < 0.022 mg/l 96 h, Raphidocelis subcapitata |
| LC50 fish EC50 crustacean EC50 algae NOEC daphnia NOEC algae Octamethylcyclotetrasiloxane (556-67-2) LC50 fish EC50 daphnia EC50 algae NOEC fish NOEC daphnia NOEC algae Dodecamethylcyclohexasiloxane (540-97-6) EC50 algae NOEC fish NOEC daphnia NOEC daphnia NOEC algae Decamethylcyclopentasiloxane (541-02-6) LC50 fish EC50 daphnia EC50 daphnia | partition coefficient, test results with a similar product). > 500 mg/L 96 h, Danio rerio > 500 mg/L 48 h, Daphnia magna > 500 mg/L 72 h, Raphidocelis subcapitata ≥ 100 mg/l 21 d, Daphnia magna ≥ 500 mg/l 72 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Oncorhynchus mykiss > 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata ≥ 0.015 mg/l 48 h, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.015 mg/l 21 d, Daphnia magna > 0.022 mg/l 96 h, Raphidocelis subcapitata > 0.0044 mg/l 93 d, Oncorhynchus mykiss > 0.015 mg/l 21 d, Daphnia magna < 0.002 mg/l 72 h, Raphidocelis subcapitata > 0.016 mg/l 96 h, Oncorhynchus mykiss > 0.016 mg/l 96 h, Raphidocelis subcapitata > 0.012 mg/l 96 h, Raphidocelis subcapitata |

| Methylsilanetriyl triacetate (4253-34-3) | | |
|--|------------------------|-----|
| Persistence and degradability | Readily biodegradable. | |
| 12.06.2023 | en(GB) | 6/9 |

| Methylsilanetriyl triacetate (4253-34-3) | |
|--|---|
| Biodegradation | 74 %, 21 d (EU Method C.4-A) |
| Octamethylcyclotetrasiloxane (556-67-2) | |
| Persistence and degradability | Not readily biodegradable. |
| Biodegradation | 3.7 %, 29 d (OECD 310) |
| Dodecamethylcyclohexasiloxane (540-97-6) | |
| Persistence and degradability | Not readily biodegradable. |
| Biodegradation | 4.47 %, 28 d (OECD 310) |
| <u> </u> | |
| Decamethylcyclopentasiloxane (541-02-6) | Net readily biodegradely |
| Persistence and degradability Biodegradation | Not readily biodegradable. 0.14 %, 28 d (OECD 310) |
| | 0.14 %, 28 d (OECD 310) |
| 12.3. Bioaccumulative potential | |
| Octamethylcyclotetrasiloxane (556-67-2) | |
| Bioconcentration factor (BCF REACH) | 12400 l/kg (EPA OTS 797.1520) |
| Partition coefficient n-octanol/water (Log Pow) | 6.98 (21.7 °C) |
| Dodecamethylcyclohexasiloxane (540-97-6) | |
| Bioconcentration factor (BCF REACH) | 1160 (OECD 305) |
| Partition coefficient n-octanol/water (Log Pow) | 8.87 |
| Decamethylcyclopentasiloxane (541-02-6) | |
| Bioconcentration factor (BCF REACH) | 7060 (OECD 305) |
| Partition coefficient n-octanol/water (Log Pow) | 8.023 |
| 12.4. Mobility in soil | |
| No additional information available | |
| 12.5. Results of PBT and vPvB assessmer | nt |
| | ordance with UK REACH Annex XIII: Octamethylcyclotetrasiloxane (556-67-2), |
| Dodecamethylcyclohexasiloxane (540-97-6), Dec | |
| 12.6. Other adverse effects | |
| Endocrine disruption for the environment | : The substance/mixture has no endocrine disrupting properties. |
| | |
| SECTION 13: Disposal consideration | s |
| 13.1. Waste treatment methods | |
| Regional legislation (waste) | : Dispose in a safe manner in accordance with local/national regulations. |
| Waste treatment methods | : Dispose of this material and its container at hazardous or special waste collection point. Do not |
| | empty into drains. |
| Waste disposal recommendations | : Empty the packaging completely prior to disposal. When totally empty, containers are recyclable like any other packing. |
| Waste code | : The valid LoW waste code numbers are source related. The manufacturer is therefore unable to specify LoW waste codes for the articles or products used in the various sectors. The LoW codes listed are intended as a recommendation for users. |
| SECTION 14: Transport information | |
| SECTION 14: Transport information | |
| In accordance with ADR / IMDG / IATA | |
| 14.1. UN number | |
| UN-No. (ADR) | : Not applicable |
| UN-No. (IMDG) | : Not applicable |
| UN-No. (IATA) | : Not applicable |
| 14.2. UN proper shipping name | |
| Proper Shipping Name (ADR) | : Not applicable |
| Proper Shipping Name (ADIC) Proper Shipping Name (IMDG) | : Not applicable |
| Proper Shipping Name (IATA) | : Not applicable |
| 1 11 3 () | |
| 14.3. Transport hazard class(es) | |
| ADR | |
| Transport hazard class(es) (ADR) | : Not applicable |
| | |
| IMDG | |
| Transport hazard class(es) (IMDG) | : Not applicable |
| | |
| 10.06.0000 | |
| 12.06.2023 | en(GB) 7/5 |

DIRKO™ Transparent

Safety Data Sheet

| 5 | |
|-----------------------|--|
| according to UK REACH | |

| IATA Transport hazard class(es) (IATA) | : Not applicable |
|---|---|
| 14.4. Packing group | |
| Packing group (ADR) | : Not applicable |
| Packing group (IMDG) | : Not applicable |
| Packing group (IATA) | : Not applicable |
| 14.5. Environmental hazards | |
| Dangerous for the environment | : No |
| Marine pollutant | : No |
| Other information | : No supplementary information available. |
| 14.6. Special precautions for user | |

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

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

Not applicable

SECTION 15: Regulatory information

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

Contains no substance(s) listed on UK REACH Annex XIV (Authorisation List).

Contains substance(s) listed on the UK REACH Candidate List: Octamethylcyclotetrasiloxane (556-67-2).

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

| SECTION 16: Other information | |
|--|--|
| Data sources | : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 No. 720 as amended by The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020. |
| Changes compared to the previous version | : Section 3.2 Section 8.1 Section 11 Section 12 |

Abbreviations and acronyms:

| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
|--------|---|
| CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No-Effect Level |
| EC50 | The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration) |
| IATA | International Air Transport Association |
| IMDG | "International Maritime Dangerous Goods Code" for the transport of dangerous goods by sea |
| LC50 | Lethal Concentration to 50 % of a test population (Median Lethal Concentration) |
| LD50 | Lethal Dose to 50% of a test population (Median Lethal Dose) |
| NOEC/L | No Observed Effect Concentration/Level |
| OECD | Organisation for Economic Cooperation and Development |
| PBT | Persistent, Bioaccumulative and Toxic substance |
| PNEC | Predicted No-Effect Concentration |
| REACH | Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals |
| SDS | Safety Data Sheet |
| STP | Sewage Treatment Plant |
| UFI | Unique Formula Identifier |
| | |

DIRKO™ Transparent

Safety Data Sheet

| vPvB | Very Persistent and Very Bioaccumulative |
|----------------------------------|---|
| Full text of H- and EUH-phrases: | |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| Repr. 2 | Reproductive toxicity, Category 2 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1B |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H319 | Causes serious eye irritation. |
| H361f | Suspected of damaging fertility. |
| H410 | Very toxic to aquatic life with long lasting effects. |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.