

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

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Sista Universal F109 Fusion, all colors

SDS No. : 619996 V003.0 Revision: 10.06.2021 printing date: 16.06.2021 Replaces version from: 28.02.2018

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

1.1. Product identifier

Sista Universal F109 Fusion, all colors

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

Intended use: Joint sealant, silicone

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Wood Lane End HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@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):

Chronic hazards to the aquatic environment H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):

Hazard statement:

H412 Harmful to aquatic life with long lasting effects.

Category 3

| Supplemental information | Contains: N,N-Dimethyl-3-(trimethoxysilyl)propylamine May produce an allergic reaction. |
|--------------------------|--|
| Precautionary statement: | P102 Keep out of reach of children. P101 If medical advice is needed, have product container or label at hand. P262 Do not get in eyes, on skin, or on clothing. P273 Avoid release to the environment. P501 Dispose of contents/container in accordance with national regulation. |

2.3. Other hazards

None if used properly.

This mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General chemical description: 1-Component silicone joint sealant Base substances of preparation:

Polydimethyl siloxane

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

| Hazardous components CAS-No. | EC Number REACH-Reg No. | content | Classification |
|---|----------------------------|-------------------|---|
| N,N-Dimethyl-3- | 219-786-3 | 0,1-< 1 % | Eye Dam. 1 H318 |
| (trimethoxysilyl)propylamine 2530-86-1 | 01-2120753783-46 | | Skin Sens. 1B |
| 2550-00-1 | | | H317 |
| octamethylcyclotetrasiloxane | 209-136-7 | 0,025-< 0,25 % | Aquatic Chronic 1 |
| 556-67-2 | 01-2119529238-36 | (0,25 %0-<2,5 %0) | H410 |
| | | | Repr. 2 |
| | | | H361f |
| | | | Flam. Liq. 3 |
| | | | H226 |
| | | | ===== |
| | | | EU. REACH Candidate List of Substances of |
| | | | Very High Concern for Authorization |
| | | | (SVHC) |
| | | | EU. REACH Candidate List of Substances of |
| | | | Very High Concern for Authorization |
| | | | (SVHC) |
| | | | M factor (Chron Aquat Tox): 10 |
| Dioctyltin dilaurate | 222-883-3 | 0,1-<0,3% | Repr. 1B |
| 3648-18-8 | 01-2119979527-19 | | H360D |
| | | | STOT RE 1 |
| | | | H372 |
| | | | ===== |
| | | | EU. REACH Candidate List of Substances of |
| | | | Very High Concern for Authorization |
| | | | (SVHC) |
| | | | EU. REACH Candidate List of Substances of |
| | | | Very High Concern for Authorization |
| | | | (SVHC) |
| Titanium dioxide | 236-675-5 | 0,1-< 1 % | Carc. 2; Inhalation |
| 13463-67-7 | 01-2119489379-17 | | H351 |
| | | | |

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of adverse health effects seek medical advice.

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Skin care. Remove contaminated clothes immediately.

Eye contact:

Immediately flush eyes with soft jet of water or eye rinse solution for at least 5 minutes. If pains remain (intensive smarting, sensitivity to light, visual disturbance) continue flushing and contact/seek doctor or hospital.

Ingestion:

Rinse mouth and throat. Drink 1-2 glasses of water. Seek medical advice.

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

No data available.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO) and carbon dioxide (CO2) can be released.

5.3. Advice for firefighters

Wear protective equipment. Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13. Remove mechanically.

6.4. Reference to other sections

See advice in section 8

7.1. Precautions for safe handling

Avoid skin and eye contact.

Hygiene measures: Do not eat, drink or smoke while working. Wash hands before work breaks and after finishing work.

7.2. Conditions for safe storage, including any incompatibilities Store in a cool, frost-free place.

Store in a cool, frost-free place. Store in a dry place. Temperatures between $0 \,^{\circ}C$ and $+ 30 \,^{\circ}C$ Do not store together with food or other consumables (coffee, tea, tobacco, etc.).

7.3. Specific end use(s) Joint sealant, silicone

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

| Ingredient [Regulated substance] | ppm | mg/m ³ | Value type | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|--------------------------------------|--|-----------------|
| Limestone 1317-65-3 [CALCIUM CARBONATE, INHALABLE DUST] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| Limestone 1317-65-3 [CALCIUM CARBONATE, RESPIRABLE DUST] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| Limestone 1317-65-3 [LIMESTONE, RESPIRABLE MARBLE, RESPIRABLE] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| Limestone 1317-65-3 [LIMESTONE, TOTAL INHALABLE MARBLE, TOTAL INHALABLE] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, INHALABLE DUST] | | 6 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS, RESPIRABLE DUST] | | 2,4 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide 112945-52-5 [Dust, respirable dust] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| Silicon dioxide 112945-52-5 [Dust, inhalable dust] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, RESPIRABLE] | | 4 | Time Weighted Average (TWA): | | EH40 WEL |
| Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE, TOTAL INHALABLE] | | 10 | Time Weighted Average (TWA): | | EH40 WEL |
| Dioctyltin dilaurate 3648-18-8 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)] | | 0,1 | Time Weighted Average (TWA): | | EH40 WEL |
| Dioctyltin dilaurate 3648-18-8 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)] | | | Skin designation: | Can be absorbed through the skin. | EH40 WEL |
| Dioctyltin dilaurate 3648-18-8 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)] | | 0,2 | Short Term Exposure Limit (STEL): | 15 minutes | EH40 WEL |

Occupational Exposure Limits

Valid for

Ireland

| Ingredient [Regulated substance] | ррт | mg/m ³ | | Short term exposure limit category / Remarks | Regulatory list |
|---|-----|-------------------|------------------------------|--|-----------------|
| Limestone 1317-65-3 [CALCIUM CARBONATE] | | 4 | Time Weighted Average (TWA): | | IR_OEL |
| Limestone 1317-65-3 | | 10 | Time Weighted Average (TWA): | | IR_OEL |

| [CALCIUM CARBONATE] | | | | |
|---|-----|--------------------------------------|-------------------------------|--------|
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS] | 6 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide 112945-52-5 [SILICA, AMORPHOUS] | 2,4 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide 112945-52-5 [DUSTS NON-SPECIFIC] | 10 | Time Weighted Average (TWA): | | IR_OEL |
| Silicon dioxide 112945-52-5 [DUSTS NON-SPECIFIC] | 4 | Time Weighted Average (TWA): | | IR_OEL |
| Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE] | 10 | Time Weighted Average (TWA): | | IR_OEL |
| Titanium dioxide 13463-67-7 [TITANIUM DIOXIDE] | 4 | Time Weighted Average (TWA): | | IR_OEL |
| Dioctyltin dilaurate 3648-18-8 [TIN, ORGANIC COMPOUNDS] | 0,2 | Short Term Exposure Limit (STEL): | 15 minutes Indicative OELV | IR_OEL |
| Dioctyltin dilaurate 3648-18-8 [TIN, ORGANIC COMPOUNDS] | 0,1 | Time Weighted Average (TWA): | Indicative OELV | IR_OEL |

Predicted No-Effect Concentration (PNEC):

| Name on list | Environmental Compartment | Exposure period | Value | | | | Remarks |
|--|------------------------------|--------------------|----------|-----|------------|---|----------------------|
| | | L | mg/l | ppm | mg/kg | others | |
| Octamethylcyclotetrasiloxane | aqua | | 0.0015 | | | | |
| 556-67-2 | (freshwater) | | mg/l | | | | |
| Octamethylcyclotetrasiloxane | aqua (marine | | 0,00015 | | | | |
| 556-67-2 | water) | | mg/l | | | | |
| Octamethylcyclotetrasiloxane | sewage | | 10 mg/l | | | | |
| 556-67-2 | treatment plant (STP) | | 10 112/1 | | | | |
| Octamethylcyclotetrasiloxane | sediment | | | | 3 mg/kg | | |
| 556-67-2 | (freshwater) | | | | 5 mg/kg | | |
| Octamethylcyclotetrasiloxane | sediment | | | - | 0,3 mg/kg | | |
| 556-67-2 | (marine water) | | | | 0,5 mg/kg | | |
| Octamethylcyclotetrasiloxane | , | | | | 41 / | | |
| 556-67-2 | oral | | | | 41 mg/kg | | |
| Octamethylcyclotetrasiloxane 556-67-2 | Soil | | | | 0,54 mg/kg | | |
| Dioctyltin dilaurate | aqua | | | | 1 | 0,0018 µg/l | |
| 3648-18-8 | (freshwater) | | | 1 | | ,, | |
| Dioctyltin dilaurate | aqua (marine | | | | | 0 μg/l | |
| 3648-18-8 | water) | | | | | 0 µB/1 | |
| Dioctyltin dilaurate | sewage | | 100 mg/l | | | | |
| 3648-18-8 | treatment plant | | 100 mg/1 | | | | |
| 5040-10-0 | (STP) | | | | | | |
| Dioctyltin dilaurate | sediment | | | | 0,02798 | | |
| 3648-18-8 | (freshwater) | | | | mg/kg | | |
| Dioctyltin dilaurate | sediment | | | | 0,002798 | | |
| 3648-18-8 | (marine water) | | | | mg/kg | | |
| Dioctyltin dilaurate | Soil | | | | 0.005593 | | |
| 3648-18-8 | | | | | mg/kg | | |
| Dioctyltin dilaurate | oral | | | | 0,02 mg/kg | | |
| 3648-18-8 | | | | | .,. 88 | | |
| Dioctyltin dilaurate | aqua | | 0.000018 | | | | |
| 3648-18-8 | (intermittent releases) | | mg/l | | | | |
| Titanium dioxide | aqua | | | | | | no hazard identified |
| 13463-67-7 | (freshwater) | | | 1 | | | |
| Titanium dioxide | aqua (marine | | | - | | 1 | no hazard identified |
| 13463-67-7 | water) | | | 1 | | | no nazaru identified |
| Titanium dioxide | sewage | | | + | | <u> </u> | no hazard identified |
| 13463-67-7 | treatment plant | | | | | | no nazaru identified |
| 13403-07-7 | (STP) | | | | | | |
| Titanium dioxide | sediment | | | + | | <u> </u> | no hazard identified |
| 13463-67-7 | (freshwater) | | | 1 | | | no nazaru identified |
| Titanium dioxide | (freshwater) | | | - | | | no horond idtif1 |
| | | | | 1 | | | no hazard identified |
| 13463-67-7 | (marine water) | | + | | | ł – – – – – – – – – – – – – – – – – – – | 1 1.1 |
| Titanium dioxide 13463-67-7 | Soil | | | | | | no hazard identified |
| Titanium dioxide | Aquatic | | | | | | no hazard identified |
| 13463-67-7 | (intermit. | | | 1 | | | |
| | releases) | | | 1 | | | |
| Titanium dioxide | Predator | | | | 1 | 1 | no hazard identified |
| 13463-67-7 | | | | 1 | | | |

Derived No-Effect Level (DNEL):

| Name on list | Application Area | Route of Exposure | Health Effect | Exposure Time | Value | Remarks |
|--|-----------------------|----------------------|--|------------------|--------------|---------|
| Octamethylcyclotetrasiloxane 556-67-2 | Workers | inhalation | Long term exposure - systemic effects | | 73 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | Workers | inhalation | Long term exposure - local effects | | 73 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | inhalation | Long term exposure - systemic effects | | 13 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | inhalation | Long term exposure - local effects | | 13 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | oral | Long term exposure - systemic effects | | 3,7 mg/kg | |
| Octamethylcyclotetrasiloxane 556-67-2 | Workers | inhalation | Acute/short term exposure - local effects | | 73 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | Workers | inhalation | Acute/short term exposure - systemic effects | | 73 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | inhalation | Acute/short term exposure - local effects | | 13 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | inhalation | Acute/short term exposure - systemic effects | | 13 mg/m3 | |
| Octamethylcyclotetrasiloxane 556-67-2 | General population | oral | Acute/short term exposure - systemic effects | | 3,7 mg/kg | |
| Dioctyltin dilaurate 3648-18-8 | Workers | inhalation | Long term exposure - systemic effects | | 0,0035 mg/m3 | |
| Dioctyltin dilaurate 3648-18-8 | Workers | dermal | Long term exposure - systemic effects | | 0,05 mg/kg | |
| Dioctyltin dilaurate 3648-18-8 | General population | inhalation | Long term exposure - systemic effects | | 0,0009 mg/m3 | |
| Dioctyltin dilaurate 3648-18-8 | General population | dermal | Long term exposure - systemic effects | | 0,025 mg/kg | |
| Dioctyltin dilaurate 3648-18-8 | General population | oral | Long term exposure - systemic effects | | 0,0005 mg/kg | |

Biological Exposure Indices: None

8.2. Exposure controls:

Respiratory protection: Ensure adequate ventilation.

Hand protection:

Recommended are gloves made from Nitril rubber (Material thickness >0,1 mm, Perforation time < 30s).Gloves should be replaced after each short time contact or contamination. Available at laboratory specialized trade or at pharmacies / chemist's shops.

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

Skin protection:

Suitable protective clothing

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| 5.1. Information on basic physical and chemical | |
|---|------------------------------------|
| Appearance | paste |
| | pasty |
| | varied, according to |
| | coloration |
| Odor | neutral |
| Odour threshold | No data available / Not applicable |
| | |
| рН | Not applicable |
| Melting point | No data available / Not applicable |
| Solidification temperature | No data available / Not applicable |
| Initial boiling point | Not applicable |
| Flash point | Not applicable |
| Evaporation rate | No data available / Not applicable |
| Flammability | No data available / Not applicable |
| Explosive limits | No data available / Not applicable |
| Vapour pressure | No data available / Not applicable |
| Relative vapour density: | No data available / Not applicable |
| Density | 1,42 g/cm3 |
| (20 °C (68 °F)) | |
| Bulk density | No data available / Not applicable |
| Solubility | No data available / Not applicable |
| Solubility (qualitative) | No data available / Not applicable |
| Partition coefficient: n-octanol/water | No data available / Not applicable |
| Auto-ignition temperature | No data available / Not applicable |
| Decomposition temperature | No data available / Not applicable |
| Viscosity | Not applicable |
| (; 40 °C (104 °F)) | |
| Viscosity (kinematic) | No data available / Not applicable |
| Explosive properties | No data available / Not applicable |
| Oxidising properties | No data available / Not applicable |
| 9.2. Other information | |

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

11.1. Information on toxicological effects

Acute oral toxicity:

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

| Hazardous substances | Value | Value | Species | Method |
|---------------------------|----------|---------------|---------|---|
| CAS-No. | type | | | |
| N,N-Dimethyl-3- | LD50 | > 2.000 mg/kg | rat | OECD Guideline 423 (Acute Oral toxicity) |
| (trimethoxysilyl)propylam | | | | |
| ine | | | | |
| 2530-86-1 | | | | |
| N,N-Dimethyl-3- | Acute | 2.500 mg/kg | | Expert judgement |
| (trimethoxysilyl)propylam | toxicity | | | |
| ine | estimate | | | |
| 2530-86-1 | (ATE) | | | |
| | | | | |
| octamethylcyclotetrasilox | LD50 | > 4.800 mg/kg | rat | equivalent or similar to OECD Guideline 401 (Acute Oral |
| ane | | | | Toxicity) |
| 556-67-2 | | | | |
| Dioctyltin dilaurate | LD50 | > 2.000 mg/kg | rat | OECD Guideline 423 (Acute Oral toxicity) |
| 3648-18-8 | | | | |
| Titanium dioxide | LD50 | > 5.000 mg/kg | rat | OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down |
| 13463-67-7 | | | | Procedure) |

Acute dermal toxicity:

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

| Hazardous substances | Value | Value | Species | Method |
|---------------------------|-------|---------------|---------|--|
| CAS-No. | type | | | |
| octamethylcyclotetrasilox | LD50 | > 2.375 mg/kg | rat | equivalent or similar to OECD Guideline 402 (Acute |
| ane | | | | Dermal Toxicity) |
| 556-67-2 | | | | |
| Dioctyltin dilaurate | LD50 | > 2.000 mg/kg | rat | OECD Guideline 402 (Acute Dermal Toxicity) |
| 3648-18-8 | | | | |
| Titanium dioxide | LD50 | >= 10.000 | hamster | not specified |
| 13463-67-7 | | mg/kg | | * |

Acute inhalative toxicity:

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

| Hazardous substances | Value | Value | Test atmosphere | Exposure | Species | Method |
|---------------------------|-------|-------------|-----------------|----------|---------|---------------------------|
| CAS-No. | type | | | time | | |
| octamethylcyclotetrasilox | LC50 | 36 mg/l | dust/mist | 4 h | rat | OECD Guideline 403 (Acute |
| ane | | | | | | Inhalation Toxicity) |
| 556-67-2 | | | | | | |
| Titanium dioxide | LC50 | > 6,82 mg/l | dust | 4 h | rat | not specified |
| 13463-67-7 | | | | | | - |

Skin corrosion/irritation:

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

| Hazardous substances | Result | Exposure | Species | Method |
|---------------------------|----------------|----------|-----------------|--|
| CAS-No. | | time | - | |
| N,N-Dimethyl-3- | not corrosive | 4 h | Human, | OECD Guideline 431 (In Vitro Skin Corrosion: |
| (trimethoxysilyl)propylam | | | EpiSkinTM | Reconstructed Human Epidermis (RHE) Test Method) |
| ine | | | (SM), | |
| 2530-86-1 | | | Reconstructed | |
| | | | Human | |
| | | | Epidermis (RHE) | |
| N,N-Dimethyl-3- | not irritating | 15 min | Human, | OECD Guideline 439 (In Vitro Skin Irritation: |
| (trimethoxysilyl)propylam | | | EpiSkinTM | Reconstructed Human Epidermis (RHE) Test Method) |
| ine | | | (SM), | |
| 2530-86-1 | | | Reconstructed | |
| | | | Human | |
| | | | Epidermis (RHE) | |
| octamethylcyclotetrasilox | not irritating | | rabbit | equivalent or similar to OECD Guideline 404 (Acute |
| ane | | | | Dermal Irritation / Corrosion) |
| 556-67-2 | | | | |
| Titanium dioxide | not irritating | 4 h | rabbit | equivalent or similar to OECD Guideline 404 (Acute |
| 13463-67-7 | | | | 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 CAS-No. | Result | Exposure time | Species | Method |
|--|----------------|------------------|--------------------------------|---|
| N,N-Dimethyl-3- (trimethoxysilyl)propylam ine 2530-86-1 | not irritating | | Chicken, eye, in vitro test | OECD Guideline 438 (Isolated Chicken Eye Test Method) |
| octamethylcyclotetrasilox ane 556-67-2 | not irritating | | rabbit | equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Dioctyltin dilaurate 3648-18-8 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |
| Titanium dioxide 13463-67-7 | not irritating | | rabbit | OECD Guideline 405 (Acute Eye Irritation / Corrosion) |

Respiratory or skin sensitization:

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

| Hazardous substances CAS-No. | Result | Test type | Species | Method |
|--|-----------------|---------------------------------------|------------|--|
| N,N-Dimethyl-3- (trimethoxysilyl)propylam ine 2530-86-1 | sensitising | Mouse local lymphnode assay (LLNA) | mouse | OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |
| octamethylcyclotetrasilox ane 556-67-2 | not sensitising | Guinea pig maximisation test | guinea pig | OECD Guideline 406 (Skin Sensitisation) |
| Titanium dioxide 13463-67-7 | not sensitising | Mouse local lymphnode assay (LLNA) | mouse | equivalent or similar to OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay) |

Germ cell mutagenicity:

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

| Hazardous substances CAS-No. | Result | Type of study / Route of administration | Metabolic activation / Exposure time | Species | Method |
|--|----------|--|--|---------|---|
| N,N-Dimethyl-3- (trimethoxysilyl)propylam ine 2530-86-1 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| octamethylcyclotetrasilox ane 556-67-2 | negative | bacterial gene mutation assay | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| octamethylcyclotetrasilox ane 556-67-2 | negative | in vitro mammalian chromosome aberration test | with and without | | equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| octamethylcyclotetrasilox ane 556-67-2 | negative | mammalian cell gene mutation assay | with and without | | equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| Titanium dioxide 13463-67-7 | negative | bacterial reverse mutation assay (e.g Ames test) | with and without | | OECD Guideline 471 (Bacterial Reverse Mutation Assay) |
| Titanium dioxide 13463-67-7 | negative | in vitro mammalian chromosome aberration test | with and without | | OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) |
| Titanium dioxide 13463-67-7 | negative | mammalian cell gene mutation assay | with and without | | OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) |
| octamethylcyclotetrasilox ane 556-67-2 | negative | inhalation | | rat | equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test) |
| octamethylcyclotetrasilox ane 556-67-2 | negative | oral: gavage | | rat | equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test) |
| Titanium dioxide 13463-67-7 | negative | oral: gavage | | mouse | OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) |

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 |
|---------------------------------|------------------|----------------------|---|---------|-------------|--|
| Titanium dioxide 13463-67-7 | not carcinogenic | inhalation | 24 m 6 h/d; 5 d/w | rat | male/female | OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies) |

Reproductive toxicity:

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

| Hazardous substances | Result / Value | Test type | Route of | Species | Method |
|---------------------------|-------------------------|------------|--------------|---------|--------------------------|
| CAS-No. | | | application | | |
| octamethylcyclotetrasilox | NOAEL P 300 ppm | two- | inhalation | rat | equivalent or similar to |
| ane | | generation | | | OECD Guideline 416 (Two- |
| 556-67-2 | NOAEL F1 300 ppm | study | | | Generation Reproduction |
| | | | | | Toxicity Study) |
| Dioctyltin dilaurate | NOAEL P 0,3 - 0,4 mg/kg | screening | oral: feed | rat | OECD Guideline 422 |
| 3648-18-8 | | _ | | | (Combined Repeated Dose |
| | | | | | Toxicity Study with the |
| | | | | | Reproduction / |
| | | | | | Developmental Toxicity |
| | | | | | Screening Test) |
| Titanium dioxide | NOAEL P > 1.000 mg/kg | | oral: gavage | rat | OECD Guideline 421 |
| 13463-67-7 | | | | | (Reproduction / |
| | NOAEL F1 > 1.000 mg/kg | | | | Developmental Toxicity |
| | | | | | Screening Test) |

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 CAS-No. | Result / Value | Route of application | Exposure time / Frequency of treatment | Species | Method |
|--|--------------------------|----------------------|--|---------|---|
| octamethylcyclotetrasilox ane 556-67-2 | LOAEL 35 ppm | inhalation | 6 h nose only inhalation 5 days/week for 13 weeks | rat | OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day) |
| octamethylcyclotetrasilox ane 556-67-2 | NOAEL 960 mg/kg | dermal | 3 w 5 d/w | rabbit | equivalent or similar to OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study) |
| Dioctyltin dilaurate 3648-18-8 | NOAEL 0,3 - 0,4 mg/kg | oral: feed | 28 d 28 d/daily (ad libitum) | rat | OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) |
| Titanium dioxide 13463-67-7 | NOAEL 1.000 mg/kg | oral: gavage | 90 d daily | rat | OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents) |

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

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

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|------------------------------|-------|------------------|---------------|----------------------------|---------------------------|
| CAS-No. | type | | | | |
| octamethylcyclotetrasiloxane | NOEC | 0,0044 mg/l | 93 d | Salmo gairdneri (new name: | EPA OPPTS 797.1600 (Fish |
| 556-67-2 | | | | Oncorhynchus mykiss) | Early Life Stage Toxicity |
| | | | | | Test) |
| octamethylcyclotetrasiloxane | LC50 | Toxicity > Water | 96 h | Oncorhynchus mykiss | EPA OTS 797.1400 (Fish |
| 556-67-2 | | solubility | | | Acute Toxicity Test) |
| Dioctyltin dilaurate | LC50 | Toxicity > Water | 96 h | | OECD Guideline 203 (Fish, |
| 3648-18-8 | | solubility | | | Acute Toxicity Test) |
| Titanium dioxide | LC50 | Toxicity > Water | 48 h | Leuciscus idus | OECD Guideline 203 (Fish, |
| 13463-67-7 | | solubility | | | Acute Toxicity Test) |

Toxicity (Daphnia):

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

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|------------------------------|-------|------------------|---------------|---------------|-----------------------------|
| CAS-No. | type | | | | |
| N,N-Dimethyl-3- | EC50 | > 100,1 mg/l | 48 h | Daphnia magna | OECD Guideline 202 |
| (trimethoxysilyl)propylamine | | | | | (Daphnia sp. Acute |
| 2530-86-1 | | | | | Immobilisation Test) |
| octamethylcyclotetrasiloxane | EC50 | Toxicity > Water | 48 h | Daphnia magna | EPA OTS 797.1300 |
| 556-67-2 | | solubility | | | (Aquatic Invertebrate Acute |
| | | | | | Toxicity Test, Freshwater |
| | | | | | Daphnids) |
| Dioctyltin dilaurate | EC50 | Toxicity > Water | 48 h | Daphnia magna | OECD Guideline 202 |
| 3648-18-8 | | solubility | | | (Daphnia sp. Acute |
| | | | | | Immobilisation Test) |
| Titanium dioxide | EC50 | Toxicity > Water | 48 h | Daphnia magna | OECD Guideline 202 |
| 13463-67-7 | | solubility | | | (Daphnia sp. Acute |
| | | | | | Immobilisation Test) |

Chronic toxicity to aquatic invertebrates

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

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|------------------------------|-------|----------|---------------|---------------|---------------------------|
| CAS-No. | type | | | | |
| octamethylcyclotetrasiloxane | NOEC | 7.9 μg/l | 21 d | Daphnia magna | EPA OTS 797.1330 |
| 556-67-2 | | | | | (Daphnid Chronic Toxicity |
| | | | | | Test) |

Toxicity (Algae):

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

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|--|-------|--------------------------------|---------------|---|--|
| CAS-No. | type | | | | |
| N,N-Dimethyl-3- (trimethoxysilyl)propylamine 2530-86-1 | EC50 | > 311 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| N,N-Dimethyl-3- (trimethoxysilyl)propylamine 2530-86-1 | NOEC | 32,4 mg/l | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| octamethylcyclotetrasiloxane 556-67-2 | EC50 | Toxicity > Water solubility | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | EPA OTS 797.1050 (Algal Toxicity, Tiers I and II) |
| octamethylcyclotetrasiloxane 556-67-2 | EC10 | 0,022 mg/l | 96 h | Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata) | EPA OTS 797.1050 (Algal Toxicity, Tiers I and II) |
| Dioctyltin dilaurate 3648-18-8 | NOEC | Toxicity > Water solubility | 72 h | Desmodesmus subspicatus (reported as Scenedesmus subspicatus) | OECD Guideline 201 (Alga, Growth Inhibition Test) |
| Titanium dioxide 13463-67-7 | EC50 | Toxicity > Water solubility | 72 h | Pseudokirchneriella subcapitata | OECD Guideline 201 (Alga, Growth Inhibition Test) |

Toxicity to microorganisms

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

| Hazardous substances | Value | Value | Exposure time | Species | Method |
|--|-------|--------------------------------|---------------|-------------------------|---|
| CAS-No. | type | | | | |
| octamethylcyclotetrasiloxane 556-67-2 | EC50 | Toxicity > Water solubility | 3 h | activated sludge | ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge) |
| Titanium dioxide 13463-67-7 | EC0 | Toxicity > Water solubility | 24 h | Pseudomonas fluorescens | DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm- Test) |

12.2. Persistence and degradability

| Hazardous substances | Result | Test type | Degradability | Exposure | Method |
|------------------------------|----------------------------|-----------|---------------|----------|-------------------------------|
| CAS-No. | | | | time | |
| N,N-Dimethyl-3- | not readily biodegradable. | aerobic | 24 % | 28 d | OECD Guideline 301 F (Ready |
| (trimethoxysilyl)propylamine | | | | | Biodegradability: Manometric |
| 2530-86-1 | | | | | Respirometry Test) |
| octamethylcyclotetrasiloxane | not readily biodegradable. | aerobic | 3,7 % | 29 d | OECD Guideline 310 (Ready |
| 556-67-2 | | | | | BiodegradabilityCO2 in Sealed |
| | | | | | Vessels (Headspace Test) |
| Dioctyltin dilaurate | not readily biodegradable. | aerobic | 1,9 % | 28 day | OECD Guideline 301 F (Ready |
| 3648-18-8 | | | | | Biodegradability: Manometric |
| | | | | | Respirometry Test) |

12.3. Bioaccumulative potential

| Hazardous substances | Bioconcentratio | Exposure time | Temperature | Species | Method |
|------------------------------|-----------------|---------------|-------------|---------------|---------------------------------|
| CAS-No. | n factor (BCF) | | | | |
| octamethylcyclotetrasiloxane | 12.400 | 28 d | | Pimephales | EPA OTS 797.1520 (Fish |
| 556-67-2 | | | | promelas | Bioconcentration Test-Rainbow |
| | | | | - | Trout) |
| Dioctyltin dilaurate | < 100 | 30 day | | Salmo irideus | OECD Guideline 305 |
| 3648-18-8 | | - | | | (Bioconcentration: Flow-through |
| | | | | | Fish Test) |

12.4. Mobility in soil

| Hazardous substances | LogPow | Temperature | Method |
|--|--------|-------------|--|
| CAS-No. | | | |
| N,N-Dimethyl-3- (trimethoxysilyl)propylamine 2530-86-1 | 0,51 | 25 °C | QSAR (Quantitative Structure Activity Relationship) |
| octamethylcyclotetrasiloxane 556-67-2 | 6,488 | 25,1 °C | OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow- Stirring Method) |
| Dioctyltin dilaurate 3648-18-8 | 14,56 | | not specified |

12.5. Results of PBT and vPvB assessment

| Hazardous substances | PBT / vPvB | | |
|---|--|--|--|
| CAS-No. | | | |
| N,N-Dimethyl-3-(trimethoxysilyl)propylamine | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very | | |
| 2530-86-1 | Bioaccumulative (vPvB) criteria. | | |
| octamethylcyclotetrasiloxane | Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very | | |
| 556-67-2 | Bioaccumulative (vPvB) criteria. | | |
| Dioctyltin dilaurate | Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very | | |
| 3648-18-8 | Bioaccumulative (vPvB) criteria. | | |
| Titanium dioxide | According to Annex XIII of regulation (EC) 1907/2006 a PBT and vPvB assessment shall not | | |
| 13463-67-7 | be conducted for inorganic substances. | | |

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Dispose of waste and residues in accordance with local authority requirements.

Disposal of uncleaned packages: Use packages for recycling only when totally empty.

Waste code 080410

| | SECTION 14: Transport information |
|-------|--|
| 14.1. | UN number |
| | Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. |
| 14.2. | UN proper shipping name |
| | Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. |
| 14.3. | Transport hazard class(es) |
| | Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. |
| 14.4. | Packing group |
| | Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. |
| 14.5. | Environmental hazards |
| | Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. |
| 14.6. | Special precautions for user |
| | Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR. |
| 14.7. | Transport in bulk according to Annex II of Marpol and the IBC Code |
| | not applicable |
| | |

SECTION 15: Regulatory information

No information available:

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021): Not applicable Not applicable Not applicable

EU. REACH, Annex XVII, Marketing and Use Restrictions (Regulation 1907/2006/EC): Not applicable

15.2. Chemical safety assessment

A chemical safety assessment has not 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:
 - H226 Flammable liquid and vapor.
 - H317 May cause an allergic skin reaction.
 - H318 Causes serious eye damage.
 - H351 Suspected of causing cancer.
 - H360D May damage the unborn child.
 - H361f Suspected of damaging fertility.
 - H372 Causes damage to organs through prolonged or repeated exposure.
 - H410 Very toxic to aquatic life with long lasting effects.

Further information:

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