



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

ARC MS-11 ADH & SEAL 290ML CLEAR 12
Supersedes Date: 24-Dec-2021

Revision date 05-Nov-2022
Revision Number 1.01

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

1.1. Product identifier

Product Name ARC MS-11 ADH & SEAL 290ML CLEAR 12

Other means of identification

Pure substance/mixture Mixture

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

Recommended use Adhesives and/or sealants

Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Company Name

Bostik Benelux B.V.
Denariusstraat 11
4903 RC Oosterhout
The Netherlands
Tel: + 31 162 491 000

E-mail address SDS.box-EU@bostik.com

1.4. Emergency telephone number

Ireland **NPIC - National Poison Information Centre**
Members of the Public: +353 (01) 8092166 (8.00 am to 10.00 pm - 7 days a week)
Healthcare Professionals: +353 (01) 8092566 (24 hour service)
United Kingdom Bostik: +44 (1785) 272650
Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

EU Specific Hazard Statements

EUH208 - Contains Trimethoxyvinylsilane & N-(3-(trimethoxysilyl)propyl)ethylenediamine & N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine. May produce an allergic reaction
EUH210 - Safety data sheet available on request

2.3. Other hazards

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Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

PBT & vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

| Chemical name | EC No (EU Index No). | CAS No. | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) | REACH registration number |
|--|-----------------------------|------------|--|------------------------------------|----------|----------------------|---------------------------|
| Diisononyl phthalate >25 - <40 % | 249-079-5 | 28553-12-0 | [I] | - | - | - | 01-2119430798-28-XXXX |
| Trimethoxyvinylsilane 1 - <5 % | (014-049-00-0) 220-449-8 | 2768-02-7 | Skin Sens. 1B (H317) Acute Tox. 4 (H332) Flam. Liq. 3 (H226) | - | - | - | 01-2119513215-52-XXXX |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine 0.1- <1 % | 217-164-6 | 1760-24-3 | Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H332) STOT SE 3 (H335) | - | - | - | 01-2119970215-39-XXXX |
| Dioctyltin oxide 0.1- <1 % | 212-791-1 | 870-08-6 | STOT SE 2 (H371) | - | - | - | 01-2119971268-27-xxxx |
| N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine 0.1- <1 % | 221-336-6 | 3069-29-2 | Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1A (H317) | - | - | - | 01-2119963926-21-xxxx |

Air contaminants formed when using the substance or mixture as intended

| Chemical name | EC No (EU Index No) | Weight-% | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) | REACH registration number |
|------------------------|-----------------------------|----------|--|---|----------|----------------------|---------------------------|
| Methyl alcohol 67-56-1 | (603-001-00-X) 200-659-6 | 1 - <2.5 | Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225) | STOT SE 1 :: C ≥ 10% STOT SE 2 :: 3% ≤ C < 10% | - | - | 01-2119433307-44-XXXX |

Full text of H- and EUH-phrases: see section 16

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes

[I] - Restricted substance per REACH Annex XVII

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATE_{mix}) for classifying a mixture based on its components

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| Chemical name | EC No (EU Index No) | CAS No | Oral LD50 mg/kg | Dermal LD50 mg/kg | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapour - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|--|-----------------------------|------------|-----------------|-------------------|---|--|--------------------------------------|
| Diisononyl phthalate | 249-079-5 | 28553-12-0 | - | - | - | - | - |
| Trimethoxyvinylsilane | (014-049-00-0) 220-449-8 | 2768-02-7 | - | - | - | 11 | - |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | 217-164-6 | 1760-24-3 | - | - | 1.5 | - | - |
| Diocetyl tin oxide | 212-791-1 | 870-08-6 | - | - | - | - | - |
| N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine | 221-336-6 | 3069-29-2 | 500 | - | - | - | - |

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|-----------------------|--|
| General advice | Show this safety data sheet to the doctor in attendance. If medical advice is needed, have product container or label at hand. |
| Inhalation | Remove to fresh air. If symptoms persist, call a doctor. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Skin contact | In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and water. |
| Ingestion | Call a doctor immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Small amounts of toxic methanol are released by hydrolysis. |

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

| | |
|-----------------|-------------|
| Symptoms | None known. |
|-----------------|-------------|

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

| | |
|------------------------|---|
| Note to doctors | Treat symptomatically. Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing. |
|------------------------|---|

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|-------------------------------------|---|
| Suitable Extinguishing Media | Water spray, carbon dioxide (CO ₂), dry chemical, alcohol-resistant foam. |
|-------------------------------------|---|

| | |
|---------------------------------------|-----------------|
| Unsuitable extinguishing media | Full water jet. |
|---------------------------------------|-----------------|

5.2. Special hazards arising from the substance or mixture

| | |
|---|--|
| Specific hazards arising from the chemical | Thermal decomposition can lead to release of irritating gases and vapours. |
|---|--|

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Hazardous combustion products Carbon oxides. Carbon monoxide. Carbon dioxide (CO₂). Silicon dioxide.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Prevent product from entering drains. Do not allow to enter into soil/subsoil. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Do not scatter spilled material with high pressure water streams.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Protect from moisture. Keep away from food, drink and animal feedingstuffs.

Recommended storage temperature Keep at temperatures between 10 and 35 °C.

7.3. Specific end use(s)

Specific use(s)
Adhesives and/or sealants.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

Exposure Limits

Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing

| Chemical name | European Union | Ireland | United Kingdom |
|------------------------------------|---|---|---|
| Diisononyl phthalate 28553-12-0 | - | TWA: 5 mg/m ³ STEL: 15 mg/m ³ | TWA: 5 mg/m ³ STEL: 15 mg/m ³ |
| Methyl alcohol 67-56-1 | TWA: 200 ppm TWA: 260 mg/m ³ * | TWA: 200 ppm TWA: 260 mg/m ³ STEL: 600 ppm STEL: 780 mg/m ³ Sk* | TWA: 200 ppm TWA: 266 mg/m ³ STEL: 250 ppm STEL: 333 mg/m ³ Sk* |
| Diocetyl tin oxide 870-08-6 | - | TWA: 0.1 mg/m ³ STEL: 0.2 mg/m ³ | TWA: 0.1 mg/m ³ STEL: 0.2 mg/m ³ Sk* |

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL) Diisononyl phthalate (28553-12-0)

| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
|--|----------------|--------------------------------|---------------|
| worker Long term Systemic health effects | Inhalation | 51.72 mg/m ³ | |
| worker Long term Systemic health effects | Dermal | 366 mg/kg bw/d | |

Trimethoxyvinylsilane (2768-02-7)

| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
|--|----------------|--------------------------------|---------------|
| worker Systemic health effects Long term | Inhalation | 27,6 mg/m ³ | |
| worker Systemic health effects Long term | Dermal | 3,9 mg/kg bw/d | |

N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3)

| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
|--|----------------|--------------------------------|---------------|
| worker Systemic health effects Long term | Inhalation | 35.5 mg/m ³ | |
| worker Systemic health effects Long term | Dermal | 5 mg/kg bw/d | |

Diocetyl tin oxide (870-08-6)

| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
|--|----------------|--------------------------------|---------------|
| worker Long term Systemic health effects | Dermal | 0.05 mg/kg bw/d | |
| worker Long term Systemic health effects | Inhalation | 0.004 mg/m ³ | |

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)

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| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
|--|----------------|--------------------------------|---------------|
| worker Long term Systemic health effects | Inhalation | 12 mg/m ³ | |
| worker Long term Systemic health effects | Dermal | 1.7 mg/kg bw/d | |

| Derived No Effect Level (DNEL) | | | |
|--|----------------|--------------------------------|---------------|
| Trimethoxyvinylsilane (2768-02-7) | | | |
| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
| Consumer Systemic health effects Long term | Inhalation | 18,9 mg/m ³ | |
| Consumer Systemic health effects Long term | Dermal | 7,8 mg/kg bw/d | |
| Consumer Systemic health effects Long term | Oral | 0,3 mg/kg bw/d | |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | | | |
|--|----------------|--------------------------------|---------------|
| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
| Consumer Systemic health effects Long term | Oral | 2.5 mg/kg bw/d | |
| Consumer Systemic health effects Long term | Inhalation | 8.7 mg/m ³ | |
| Consumer Systemic health effects Long term | Dermal | 2.5 mg/kg bw/d | |

| Diocetyl tin oxide (870-08-6) | | | |
|--|----------------|--------------------------------|---------------|
| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
| Consumer Long term Systemic health effects | Oral | 0.0005 mg/kg bw/d | |
| Consumer Long term Systemic health effects | Dermal | 0.025 mg/kg bw/d | |
| Consumer Long term Systemic health effects | Inhalation | 0.0009 mg/m ³ | |

| N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2) | | | |
|--|----------------|--------------------------------|---------------|
| Type | Exposure route | Derived No Effect Level (DNEL) | Safety factor |
| Consumer Long term Systemic health effects | Inhalation | 2.9 mg/m ³ | |
| Consumer Long term Systemic health effects | Dermal | 0.83 mg/kg bw/d | |
| Consumer | Oral | 0.83 mg/kg bw/d | |

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| | | | |
|--------------------------------------|--|--|--|
| Long term Systemic health effects | | | |
|--------------------------------------|--|--|--|

Predicted No Effect Concentration (PNEC)

| Predicted No Effect Concentration (PNEC) | |
|--|--|
| Trimethoxyvinylsilane (2768-02-7) | |
| Environmental compartment | Predicted No Effect Concentration (PNEC) |
| Freshwater | 0.34 mg/l |
| Marine water | 0.034 mg/l |
| Microorganisms in sewage treatment | 110 mg/l |

| N-(3-(trimethoxysilyl)propyl)ethylenediamine (1760-24-3) | |
|--|--|
| Environmental compartment | Predicted No Effect Concentration (PNEC) |
| Freshwater | 0.062 mg/l |
| Marine water | 0.0062 mg/l |
| Sewage treatment plant | 25 mg/l |

| Diocetyl tin oxide (870-08-6) | |
|------------------------------------|--|
| Environmental compartment | Predicted No Effect Concentration (PNEC) |
| Freshwater sediment | 0.02798 mg/kg dry weight |
| Marine sediment | 0.002798 mg/kg dry weight |
| Microorganisms in sewage treatment | 100 mg/l |

| N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2) | |
|--|--|
| Environmental compartment | Predicted No Effect Concentration (PNEC) |
| Freshwater | 0.062 mg/l |
| Marine water | 0.006 mg/l |
| Sewage treatment plant | 25 mg/l |
| Freshwater sediment | 0.24 mg/kg dry weight |
| Marine sediment | 0.024 mg/kg dry weight |
| Soil | 0.01 mg/kg dry weight |

8.2. Exposure controls

| | |
|--------------------------------------|---|
| Engineering controls | Ensure adequate ventilation, especially in confined areas. |
| Personal protective equipment | |
| Eye/face protection | Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166 |
| Hand protection | Wear suitable gloves. Recommended Use: Neoprene™. Nitrile rubber. Butyl rubber. Glove thickness > 0.7mm. The breakthrough time for the mentioned glove material is in general greater than 480 min. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374 |
| Skin and body protection | None under normal use conditions. |
| Respiratory protection | In case of inadequate ventilation wear respiratory protection. Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Ensure adequate ventilation, especially in confined areas. |
| Recommended filter type: | Organic gases and vapours filter conforming to EN 14387. White. Brown. |

Environmental exposure controls Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------------|------------------------------------|
| Physical state | Solid |
| Appearance | Paste |
| Colour | See section 1 for more information |
| Odour | Characteristic. |

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Odour threshold No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---|--|-------------------------|
| Melting point / freezing point | No data available | None known |
| Initial boiling point and boiling range | No data available | None known |
| Flammability | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Flash point | > 60 °C | |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | | None known |
| pH | | |
| pH (as aqueous solution) | No data available | None known |
| Kinematic viscosity | > 21 mm ² /s | |
| Dynamic viscosity | No data available | |
| Water solubility | No data available. Product cures with moisture | |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Vapour pressure | No data available | None known |
| Relative density | No data available | None known |
| Bulk Density | No data available | |
| Liquid Density | 1,06 | |
| Relative vapour density | No data available | None known |
| Particle characteristics | | |
| Particle Size | No information available | |
| Particle Size Distribution | No information available | |

9.2. Other information

Solid content (%) No information available
VOC content No data available

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Product cures with moisture.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

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10.4. Conditions to avoid

Conditions to avoid Product cures with moisture. Protect from moisture. Exposure to air or moisture over prolonged periods. Do not freeze. Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products Small amounts of methanol (CAS 67-56-1) are formed by hydrolysis and released upon curing.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Based on available data, the classification criteria are not met.

Eye contact Based on available data, the classification criteria are not met.

Skin contact Based on available data, the classification criteria are not met. May cause sensitisation in susceptible persons.

Ingestion Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (inhalation-vapour) 554.5940 mg/l

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--|---|--|---|
| Diisononyl phthalate | >9750 mg/kg (Rattus) | >3160 mg/Kg (Oryctolagus cuniculus) | >4.4 mg/L (Rattus) 4 h |
| Trimethoxyvinylsilane | LD50 = 7120 -7236 mg/kg (Rattus) OECD 401 | = 3540 mg/kg (Oryctolagus cuniculus) | LC50 (4hr) 16.8 mg/l (Rattus) OECD TG 403 |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | =2295 mg/kg (Rattus) | >2000 mg/Kg (Rattus) | LC50 4H (Aerosol)1.5 - 2.44 mg/L air |
| Dioctyltin oxide | =2500 mg/kg (Rattus) | LD50 > 2000 mg/kg (Rattus) OECD 402 | - |
| N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine | =200 - 2000 mg/Kg (Rattus) (OECD 401) | >5000 mg/Kg (Oryctolagus cuniculus) (OECD 402) | > 5.2 mg/L (Rat) 4 h |

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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Trimethoxyvinylsilane (2768-02-7)

| Method | Species | Exposure route | Effective dose | Exposure time | Results |
|--------|---------|----------------|----------------|---------------|--------------|
| | Rabbit | Dermal | 0.5 mL | 24 hours | Non-irritant |

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)

| Method | Species | Exposure route | Effective dose | Exposure time | Results |
|--|---------|----------------|----------------|---------------|----------|
| OECD Test No. 404: Acute Dermal Irritation/Corrosion | Rabbit | Dermal | | | irritant |

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Trimethoxyvinylsilane (2768-02-7)

| Method | Species | Exposure route | Effective dose | Exposure time | Results |
|---|---------|----------------|----------------|---------------|--------------|
| OECD Test No. 405: Acute Eye Irritation/Corrosion | Rabbit | eye | | 24 hours | Non-irritant |

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)

| Method | Species | Exposure route | Effective dose | Exposure time | Results |
|---|---------|----------------|----------------|---------------|------------|
| OECD Test No. 405: Acute Eye Irritation/Corrosion | Rabbit | | | | Eye Damage |

Respiratory or skin sensitisation OECD Test No. 406: Skin Sensitisation. No sensitisation responses were observed. No classification is proposed, based on conclusive negative data. May cause sensitisation in susceptible persons.

| Method | Species | Exposure route | Results |
|--|------------|----------------|---|
| OECD Test No. 406: Skin Sensitisation | Guinea pig | Dermal | No sensitisation responses were observed |

Trimethoxyvinylsilane (2768-02-7)

| Method | Species | Exposure route | Results |
|--|------------|----------------|-------------|
| OECD Test No. 406: Skin Sensitisation, Buehler test | Guinea pig | Dermal | sensitising |

N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine (3069-29-2)

| Method | Species | Exposure route | Results |
|--|------------|----------------|-------------|
| OECD Test No. 406: Skin Sensitisation | Guinea pig | | Sensitizing |

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Component Information

Trimethoxyvinylsilane (2768-02-7)

| Method | Species | Results |
|---|----------|---------------|
| OECD Test No. 471: Bacterial Reverse Mutation Test | in vitro | Not mutagenic |

Carcinogenicity Based on available data, the classification criteria are not met.

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Reproductive toxicity Based on available data, the classification criteria are not met.

Trimethoxyvinylsilane (2768-02-7)

| Method | Species | Results |
|--|---------|------------------|
| OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test | Rat | Not Classifiable |

STOT - single exposure Based on available data, the classification criteria are not met.

Diocetyl tin oxide (870-08-6)

| Method | Species | Exposure route | Effective dose | Exposure time | Results |
|--|---------|----------------|----------------|---------------|--|
| OECD Test No. 422: Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test | Rat | Oral | 5 mg/kg | 28 days | 0.3 - 0.5 mg/kg bw/d May cause damage to the following organs: Immune system |

STOT - repeated exposure Based on available data, the classification criteria are not met.

Trimethoxyvinylsilane (2768-02-7)

| Method | Species | Exposure route | Effective dose | Exposure time | Results |
|--|---------|-------------------|----------------|---------------|-------------|
| OECD Test No. 413: Sub-chronic Inhalation Toxicity: 90-day Study | Rat | Inhalation vapour | | 90 days | 0.058 NOAEL |

Diocetyl tin oxide (870-08-6)

| Method | Species | Exposure route | Effective dose | Exposure time | Results |
|--------|------------|----------------|----------------|---------------|---------------------|
| | Rat Rabbit | | | 28 days | 0.3 -0.5 mg/kg bw/d |

Aspiration hazard Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea | M-Factor | M-Factor (long-term) |
|---------------------------------|-----------------------------------|------------------------------------|----------------------------|-------------------------------------|----------|----------------------|
| Diisononyl phthalate 28553-12-0 | EC50: >500mg/L (72h, Desmodesmus) | LC50 96 h > 100 mg/L (Brachydanio) | - | EC50: >500mg/L (48h, Daphnia magna) | | |

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| | | | | | | |
|---|---|--|---|--|--|--|
| | subspicatus) EC50: >1.8mg/L (96h, Pseudokirchneri ella subcapitata) | erio semi-static) | | EC50: >0.06mg/L (48h, Daphnia magna) | | |
| Trimethoxyvinylsilane 2768-02-7 | EC 50 (72h) > 957 mg/l (Desmodesmus subspicatus) EU Method C.3 | LC50 (96h) = 191 mg/l (Oncorhynchus mykiss) | - | EC50(48hr) 168.7mg/l (Daphnia magna) | | |
| N-(3-(trimethoxysilyl)pr opyl)ethylenediamine 1760-24-3 | - | LC50 (96H) =597 mg/L (Danio erio)Semi-static | - | EC50 (48h) =81mg/L Daphnia magna Static | | |
| Diocetyl tin oxide 870-08-6 | EC50 (3hr) >1.000 mg/l (bacteria) (Activated Sludge, Respiration Inhibition Test) | LC50 (96hr) >0,09 mg/l (Brachydanio erio (zebra)) (Acute Toxicity Test) | - | EC50 (48Hr) >0,21 mg/l (Daphnia magna (Dappnia magna)) (Daphnia sp. Acute Immobilisation Test) | | |

12.2. Persistence and degradability

Persistence and degradability No information available.

Trimethoxyvinylsilane (2768-02-7)

| Method | Exposure time | Value | Results |
|---|---------------|-------|-----------------------------------|
| OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F) | 28 days | BOD | 51 % Not readily biodegradable |

Diocetyl tin oxide (870-08-6)

| Method | Exposure time | Value | Results |
|---|---------------|----------------|----------------------------------|
| OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F) | 755 hours | biodegradation | Not readily biodegradable 2 % |

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

| Chemical name | Partition coefficient |
|--|-----------------------|
| Diisononyl phthalate | 9.7 |
| Trimethoxyvinylsilane | 1.1 |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | -0.3 |
| Diocetyl tin oxide | 6 |

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

| Chemical name | PBT and vPvB assessment |
|----------------------|---|
| Diisononyl phthalate | The substance is not PBT / vPvB PBT assessment does |

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| | |
|--|---------------------------------|
| | not apply |
| Trimethoxyvinylsilane | The substance is not PBT / vPvB |
| N-(3-(trimethoxysilyl)propyl)ethylenediamine | The substance is not PBT / vPvB |
| Diocetyl tin oxide | The substance is not PBT / vPvB |
| N-[3-(Dimethoxymethylsilyl)propyl]-ethylenediamine | The substance is not PBT / vPvB |

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|-------------------------------------|--|
| Waste from residues/unused products | Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable. |
| Contaminated packaging | Handle contaminated packages in the same way as the product itself. |
| European Waste Catalogue | 08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09 |
| Other information | Waste codes should be assigned by the user based on the application for which the product was used. |

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|---------------------------------|----------------|
| 14.1 UN number or ID number | Not regulated |
| 14.2 Proper Shipping Name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special Provisions | None |

IMDG

| | |
|--|----------------|
| 14.1 UN number or ID number | Not regulated |
| 14.2 Proper Shipping Name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Marine pollutant | NP |
| 14.6 Special Provisions | None |
| 14.7 Maritime transport in bulk according to IMO instruments | Not applicable |

Air transport (ICAO-TI / IATA-DGR)

| | |
|---------------------------------|----------------|
| 14.1 UN number or ID number | Not regulated |
| 14.2 Proper Shipping Name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special Provisions | None |

Section 15: REGULATORY INFORMATION

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

| Chemical name | CAS No | Restricted substance per REACH Annex XVII |
|----------------------|------------|---|
| Diisononyl phthalate | 28553-12-0 | 52[a]. |
| Diocetyl tin oxide | 870-08-6 | 20. |

52 . Not to be used in toys or childcare articles above 0.1% which can be placed in the mouth by children.

Substance subject to authorisation per REACH Annex XIV

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Export Notification requirements

This product contains substances which are regulated pursuant to Regulation (EC) No. 649/2012 of the European parliament and of the council concerning the export and import of dangerous chemicals

| Chemical name | European Export/Import Restrictions per (EC) 689/2008 - Annex Number |
|--------------------|--|
| Diocetyl tin oxide | I.1 |

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Persistent Organic Pollutants

Not applicable

National regulations

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture

SECTION 16: Other information

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Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H226 - Flammable liquid and vapour
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H335 - May cause respiratory irritation

SVHC: Substances of Very High Concern for Authorisation:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals

vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

STOT RE: Specific target organ toxicity - Repeated exposure

STOT SE: Specific target organ toxicity - Single exposure

EWC: European Waste Catalogue

LOW: List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IATA: International Air Transport Association

ICAO: ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG: International Maritime Dangerous Goods

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

Legend SECTION 8: Exposure controls/personal protection

| | | | |
|---------|-----------------------------------|------|----------------------------------|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| AGW | Occupational exposure limit value | BGW | Biological limit value |
| Ceiling | Maximum limit value | * | Skin designation |

| Classification procedure | |
|---|-----------------------|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - Vapour | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitisation | Calculation method |
| Skin sensitisation | On basis of test data |
| mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration hazard | Calculation method |
| Ozone | Calculation method |

Key literature references and sources for data used to compile the SDS

European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AELG(s))
International Uniform Chemical Information Database (IUCRID)
National Institute of Technology and Evaluation (NITE)
NIOSH (National Institute for Occupational Safety and Health)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

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Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set

Prepared By Product Safety & Regulatory Affairs

Revision date 05-Nov-2022

Training Advice No information available

Further information No information available

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

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet